

Greetings from the Chairman



Chairman
Michinao Takahashi

The advance of modern civilization has on the one hand brought affluence and convenience to our lives, but at the same time, it continues to exacerbate environmental issues such as global warming and resource depletion. The environment underpins the survival of the human species. To ensure that it is appropriately preserved for future generations, each and every one of us must fulfil our individual roles, and build a sustainable society that equally supports economic development and environmental conservation. Corporate activity must also be founded in a clear understanding of appropriate roles and responsibilities, and companies must be proactive.

Since its inception, Lion Corporation has consistently sought to give satisfaction to its customers through the provision of superior products that are useful in their daily lives. At the present point in time, Lion is implementing its medium-term management plan (VIP: Value Innovation Plan), applicable to the six years from 2001 to 2006, with the objective of improving corporate (shareholder) value, on a foundation of greater social and customer value. One of the priority policies in the plan is not to be complacent, but to promote even more responsible care activities, and to engage the company in its entirety in taking more effective environmental action that will satisfy our responsibility to conservation of the global environment.

Many of Lion's major products are used with and discharged in water, which means that we consider care for the aquatic environment to be an important issue. Historically, Lion's response to the environment has been one of constant striving to reduce the burden on the global environment through such initiatives as, in the 1960s and 1970s, developing highly biodegradable and phosphorous-free detergents, and in the 1990s, developing a plant-derived washing ingredient (MES) with superior biodegradability, and implementing an epoch-making conversion in our ingredients from depleted resources to renewable, plant-based resources. Lion will continue to vigorously promote activities that demonstrate responsible care for the globe, the community, our staff, and our customers, in all stages of corporate activity, from product development to disposal, and contribute thereby to building a sustainable society.

Lion is also engaged in enhancing its compliance systems, and with the express provision last year of a corporate charter and code of conduct, is seeking to achieve a whole-of-company commitment, not only to our responsibility to preserve the global environment, but also to the company's social responsibilities.

LION HAS BEEN A LEADING COMPANY IN ITS ENGAGEMENT WITH AQUATIC ENVIRONMENTAL PROBLEMS

Lion's main products are used with and discharged in water. For that reason, from very early on Lion has taken initiatives to address aquatic environmental problems, and has led the industry in activities to prevent water pollution.

Development of highly biodegradable detergents

It was in the 1960s that electric washing machines became commonplace in homes, which led to rivers and sewage treatment plants becoming blanketed in foam. It became known that ABS surfactants (branched chain alkyl benzene sulfonates) mixed into synthetic detergents of the time were responsible. The phenomenon arose because the structure of ABS surfactants is such that once released into the environment, they resist being biodegraded, either by being partially taken up by micro-organisms, or by being broken down into carbon dioxide and water through the action of micro-organisms. Lion's solution was to convert to the use of readily degradable LAS (linear alkyl benzene sulfonates) as an ingredient in detergents. In 1967, Lion developed AOS (α -olefin sulfonates), which displayed highly biodegradable properties, and launched Dash, the world's first laundry detergent using AOS.



1967



1973

1960s: Foam in rivers

1970s: Eutrophication in rivers and lakes

Chronology of systems and initiatives

- 1971 Established the Environmental Problems Countermeasures Committee
- 1990 Launched the Environmental Action Promotion Committee
- 1991 Launched an inter-divisional organization to deal with safety and disaster prevention, the Environmental Security Conference
- 1993 Promulgated a voluntary action plan on conserving the global environment (VPE)
- 1995 Promulgated Basic Guidelines on Environmental Management
- 1996 Awarded the Minister of International Trade and Industry Award as a consumer-oriented excellent company
- 1997 Joined the Japan Responsible Care Council (JRCC)
Inaugural issue of the Environmental Activities Report
- 2001 Promulgated the VIP medium-term management plan
Promulgated the First Medium-Term Environmental Management Plan
Received simultaneous ISO14001 approval for all factories
- 2002 Achieved zero emissions at all factories (1999 - Tokyo, Odawara; 2000 - Akashi, Isehara)
Published environmental accounting results
- 2003 Promulgated the Lion Group Charter of Corporate Behavior

Development of phosphate-free detergents

Water pollution due to eutrophication became an issue in the 1970s. Eutrophication occurs when there are large inflows of nitrogen, phosphorous or potassium, which cause conditions of excess nutrients in water. That in turn leads to explosions of algae or plankton, causing such phenomena as red tides. The origin of phosphorous in water is typically soil or fertilizer inflow during rain, or livestock or human excrement, but at the time, phosphates were also included in laundry detergent to enhance washing power. Lion has therefore promoted research on phosphorous-free products, and taken a leading role in advancing phosphate-free detergents. In 1973 we launched Seseragi, the world's first phosphate-free detergent, and in 1980, Phosphorous-Free Top, in which washing power was substantially improved using zeolite.



1980



1988



1991

Conversion to more compact products and plant resources

The period from the late 1980s to the 1990s was one in which global environmental issues came into close-up. In 1988, Lion launched the compact, high performance Hi Top laundry detergent, that even in small amounts displayed enhanced wash efficacy, a move which not only reduced the burden on the aquatic environment, but also achieved reductions in garbage from containers.

Lion also enhanced the concept of using resources wisely and, with due consideration for the use of renewable plant resources in place of resource-depleting oil, Lion extracted vegetable oil from coconut and palm, and succeeded in creating Spark, a detergent that used it as a raw ingredient. This plant-derived MES (α -sulfo fatty-acid ester) is an ingredient that has continued to achieve good washes with small amounts and has superior biodegradability.

1990s: Global environmental problems



Lion's tireless efforts to conserve the global environment are ongoing. Turn the page to find out about the many initiatives currently underway.

LION IS FULFILLING ITS CORPORATE RESPONSIBILITY TO ACHIEVE A SUSTAINABLE RECYCLING-ORIENTED SOCIETY



President
Sadayoshi Fujishige

Q1 Environmental problems have reached global proportions, and are getting worse. In this, the 21st century, how do you see the role of companies?

The current world population is in the order of six billion. That figure will continue to grow, primarily in Asia, and in 50 years' time we are told it will reach nine billion. This explosive population growth will create shortages in water, air, food and energy, the resources essential to our existence. At the same time, the waste products and waste gases that are generated in large volumes as a result of the workings of humans are predicted to worsen the global environment.

I believe that the task we have been given in the 21st century is to move gently to a sustainable recycling-oriented society, based on the use of natural energy and recycling. Specifically, that means matching human

biorhythms with the Earth's biorhythms, or living in harmony in a state of balance between those two. To that end, each and every person on the planet must change their thinking, and we must get involved in reducing the environmental burden, but above all, the responsibility that companies must shoulder is significant. Companies must be careful with water, oil and other limited resources, and must do everything possible to reduce the burden on the global environment at every stage of the product lifecycle.

For Lion to carry out its responsibilities as a company to preserving the global environment, we are steadily engaged in ongoing activities aimed at bringing the sustainable recycling-oriented society into being, working from five basic actions in respect of: energy saving; reducing waste products; reducing volume of containers and packaging used; developing environment-conscious products; and safe management of chemical substances.

Q2 How has Lion positioned environmental action in its management strategy, and how is it progressing with such action?

If Lion is to be a company that society wants to continue in the 21st century, we must see environmental conservation as one management issue that cannot be overlooked.

The three-year new medium-term management plan (VIP II) that we formulated in 2004, in fact defines specific quantitative targets in the context of promoting responsible care.

- To upgrade from the ISO14001 approval acquired simultaneously by all factories in 2001, and to improve management standards
- To undertake enhancement of the environmental management system by promoting energy saving (2006 target: 85% or less of 1990 levels), reducing industrial waste (2006 target: 65% or less of 1990 levels), and maintaining zero emissions at all factories
- To steadily progress checks on important equipment, and enhance the normal inspection and maintenance system, or use external experts to strengthen safety management, promoting thorough quality control, from ingredient to product.

With due consideration for changes in the social climate,



Presenting a lecture at Keio University on the topic, "Lion's Environmental and Social Activities"



Briefing wholesalers about Lion's business direction, and the topic of environmental and social activities

including a focus on the social responsibilities of companies, and the circumstances relating to ISO14001 approval of the company's production facilities, Lion took the opportunity presented by the VIP II plan to review its environmental directions.

Lion's environmental activities have been undertaken, not with a reactive attitude to problems that arise, but with a proactive approach, engaging positively in environmental conservation, and the results are embodied as products. Environmental issues and initiatives have been incorporated into marketing, information has been disclosed, and the company has communicated extensively with customers. We are proud that the cumulative impact of our efforts has brought us credibility with our customers, and has been the motive force for our progress. The company will continue with its commitment to lifestyle and the environment, and will continue to seek to achieve progress and to contribute to society.

Q3 Given that Lion provides things like detergent, toothpaste, and shampoo, products that are essential to daily life, which makes it a company that is very much a part of the consumer's life, can you tell us specifically what initiatives the company has taken in relation to the environment.

Some 72% of the world's surface is water. Of that, approximately 97.5% is seawater, and the remaining 2.5% is freshwater. Nearly 70% of the freshwater is present as ice at the south and north poles, so that the water that is actually available to our survival and our lifestyles is less than one percent of the total.

Most of Lion's products are used or discharged with this very precious resource, so that care for the aquatic environment is probably the single most important issue for the company.

Lion has established Three Principles of Environmentally Responsible Composition for application in product development:

(i) Use of readily biodegradable ingredients

- (ii) Reduction in amount of product used per use
- (iii) Use of recyclable plant ingredients

The volume of containers and packaging that is created when Lion products are disposed of as rubbish has reached approximately 70,000 tons per year, which means that we consider reducing rubbish is also part of the company's social responsibilities.

In all aspects, from product development, production and distribution through to consumption, Lion is reducing containers and packaging from the perspective of the "3 Rs": Reduce, Reuse, and Recycle.

In terms of distribution, Lion is using larger vehicles, integrating distribution centers, reducing the number of trucks by carrying larger orders, and reducing energy consumption.

Q4 What sort of company is Lion intending to become ?

From "Good morning" to "Good night", Lion wants to be a company that will be useful to society by creating cleanliness, health, beauty, and a comfortable lifestyle. Lion will do its utmost to fulfil the huge ambition of protecting a comfortable lifestyle for people.

On January 1, 2003, Lion made a declaration in relation to compliance, and promulgated its Corporate Charter of Conduct, with the aim of becoming a company that acts from a more ethical perspective. I would hope that by ongoing engagement with the environment, and further evolution in actions designed to make a social contribution, Lion will be able to deepen the trust with which it is viewed by its customers and society in general.

A comfortable lifestyle can be achieved through the cumulative effect of daily good habits. By having good habits, we are all, through our own efforts, able to achieve a healthy mind and body. Lion will continue to deliver to customers products that are safe and environmentally-friendly, and provide "good habits", in hopes of being a company that will grow with customer happiness.

ENVIRONMENTAL VISION AND MANAGEMENT SYSTEMS

Lion has formulated new environmental guidelines that make the company's attitude to environmental protection clearer. Lion is seeking to improve its engagement by carrying out a company-wide revamping of its setup for environmental management, and operating a thoroughgoing environmental management system.

Formulation of new environmental guidelines

The changed social climate, which now requires that companies have corporate social responsibility (CSR), the acquisition of ISO14001*¹ certification by all company factories, and the attainment of zero emissions, have precipitated a review by Lion of its environmental guidelines.

The company is a member of the Japan Responsible Care*² Council (JRCC), and has at the same time implemented ISO14001 registration with the Japan Accreditation Board for Conformity Assessment (JAB). Lion has therefore established the Environmental Guidelines below, based on the requirements of the JRCC and ISO14001, and in conformance with the spirit of the Lion-Group Charter for Corporate Behavior, which states: "We shall play a positive and active role in creating a sustainable society harmonizing economic development and environmental protection."

ENVIRONMENTAL GUIDELINES

The company will act voluntarily and proactively to achieve a reduction in the burden on the environment of its business activities, in its efforts to create a sustainable society.

Aiming for a sustainable society

Promote an environmental management system, and through ongoing maintenance and improvement of that system, protect the global environment.

Compliance with legal and other requirements

Comply with the system of legislation and regulations and arrangements pertaining to environmental protection, and establish and implement voluntary standards of conduct.

Setting and verifying implementation of environmental objectives and targets

Correctly understand the environmental impact of corporate activity, and as far as technically and economically possible, establish objectives and targets for improvement, while at the same time formulating, implementing and regularly verifying the status of implementation of an environmental management program.

Advice to all staff and promotion of all-Lion action

Advise all staff, including those in associated companies, of Lion's Environmental Guidelines, and work to raise awareness of environmental protection, while at the same time promoting environmental management activities in Lion and associated companies.

Promoting disclosure of information

Seek to maintain and promote communication with stakeholders involved in Lion's businesses. These Environmental Guidelines are freely available to anyone upon request.

April 1, 2004

*1 ISO14001

An internationally accepted standard for voluntary engagement by a company in environmental issues. Companies that have been accredited through third party assessment in accordance with the standard are recognized as having levels of environmental management that are of international standard.

*2 Responsible Care

Voluntary measures undertaken by companies that deal with chemical substances to ensure environmental preservation, human safety and health in all stages of development, manufacture, distribution, use, and disposal, at the same time as promoting communication with society and enhancing the company's credibility.

Environmental Management System

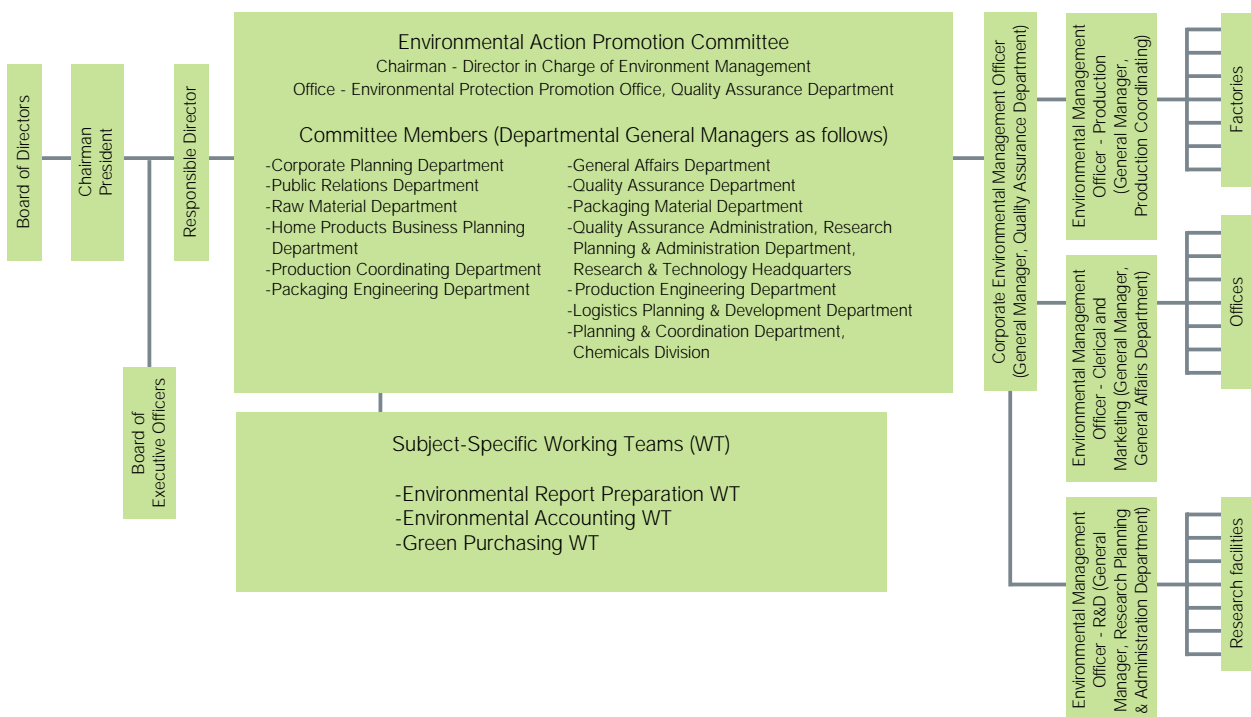
Lion has set up the Environmental Action Promotion Committee, the task of which is to unite the company internally to cooperate in its responses to environmental problems.

The Committee reviews business activities from the perspective of environmental protection, and conducts the companywide pursuit of such environmental protection and assessment of the state of their achievement, including compliance with statutes and the setting of voluntary standards and targets.

The Committee has also set up topic-specific working teams to resolve individual issues.

On August 1, 2004, the Environmental Protection Promotion Office was also newly established to facilitate unification of Lion Group's environmental protection and management, and to promote and enhance both.

Environmental Management System (as of August 1, 2004)



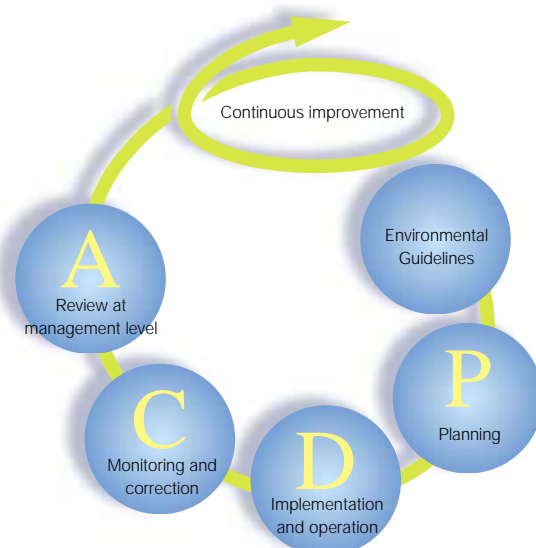
Operation of an Environmental Management System

An environmental management system is designed to enable a company to understand the effects on the environment of its business activities, and its products and services, and to assess and rectify those effects, while at the same time facilitating continual improvement initiatives to achieve positive environmental performance.

We will carry out continuous improvement of our Environmental Management System in accordance with the Environmental Guidelines through our "Plan-Do-Check-Action" cycle.

Plan	Set targets for environmental action and formulate a documented plan
Do	Take action to protect the environment
Check	Carry out audits, monitor and improve environmental aspects
Action	Confirm what actions are being taken, review that action at management level, and issue directives on improvements (review)

Using the PDCA cycle



FISCAL 2003 ENVIRONMENTAL MANAGEMENT PERFORMANCE

2003 environmental targets and achievements

The year 2003 was the final year of the 1st Medium-Term Environmental Management Plan, and Lion implemented a variety of measures, primarily relating to energy and waste product management, achieving solid results. The main achievements were as follows.

[Degree of achievement: A: Achieved B: Generally Achieved C: Not Achieved]

Energy management

The target for reductions in the amount of energy used in production divisions was set at 88% or less of 1990 levels. Initiatives to improve capacity in manufacturing facilities and introduce energy-saving facilities and equipment saw an outcome of 78% compared to 1990 levels. (Degree of achievement: A)

In non-production divisions, power and energy savings were also the focus, and a lower amount of energy was used than in 2002. (Degree of achievement: A)

The target for introduction of low-emission gas vehicles to the marketing fleet was 78 or more. The number introduced was 98. (Degree of achievement: A)

Waste products management

The target was to reduce the total volume of waste products generated by the production divisions to 83% or less of 1990 levels. The reduction achieved was 65% of 1990 levels. We also continued to achieve zero emissions at all factories. (Degree of achievement: A)

Chemical substances management

The target that was set and achieved was to identify and report, in accordance with the law, the volumes of emissions and the amount of substances moved, for substances specified in the PRTR (Pollutant Release and Transfer Register) Law (Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management). (Degree of achievement: A)

Measures to reduce emissions are also ongoing.

Green products and green purchasing

The target was to reduce the amount of product packaging materials used to 99% or less than the previous year (relevant to quantity of product sold), but the actual figure was 100.6%. The outcome was due to the fact that the figure was calculated using the number of products sold as the basic unit, and was affected by changes in the composition ratio of products sold. A reduction was achieved in total amount of packaging material used. (Degree of achievement: B)

The target set was the creation of standards for green purchasing of packaging materials. An internal working group collected information and formulated a basic concept, but that did not proceed to standards being drawn up. (Degree of achievement: B)

Environmental management

In association with the new medium-term management plan (VIP II), the 2nd Medium-Term Environmental Management Plan (2004 to 2006) was drawn up. (Degree of achievement: A)

Changes in social climate and progress in the company's environmental measures precipitated revision of the Environmental Guidelines.

Highlights of 2003 activities

Technical innovations in detergent manufacture produced substantial energy savings
[78% of 1990 levels]

Better than targeted reductions achieved in waste products
[Total waste products down 1,300 tons year-on-year]

Enhanced environmental management
[Environmental Guidelines revised and New Medium-Term Environmental Management Plan drawn up]

2004 environmental targets

Energy management

- Reduce the amount of energy used in the production divisions to 83% or less of 1990 levels (tough target set to achieve 2006 target)
- Introduce 50 or more low-emission vehicles to the marketing fleet

Waste product management

- Reduce the total volume of waste products from the production divisions to 70% or less of 1990 levels
- Zero emissions in the production divisions will be ongoing and qualitatively improved

Chemical substances management

- Continue to identify and report, in accordance with the law, the volumes of emissions and the amount of substances moved, for substances specified in the PRTR Law, and continue measures to reduce emissions

Green products and purchasing

- Use the 3Rs to reduce packaging materials
- Promote green purchasing of office products

All-Lion management system

- Publicize environmental data from affiliated domestic companies

* Please see the relevant pages for an explanation of terminology

MEDIUM-TERM ENVIRONMENTAL MANAGEMENT PERFORMANCE

1st Medium-Term Environmental Management Plan (2001 to 2003) targets and performance

Targets were set in each area in accordance with the 1st Medium-Term Environmental Management Plan commencing in 2001, and environmental initiatives were undertaken across the entire company. The result was achievement of targets in all areas.

Category	Target (set in 2001)/Performance (2003)			Degree of achievement
Energy management (compared to 1990)	Production Target: 91% or less Actual: 78%	Research Target: 93% or less Actual: 78%	Clerical and Marketing Target: 86% or less Actual: 80%	A
Waste product management	Production Target: achieve zero emissions at all factories by 2002 Actual: 1999 - Tokyo, Odawara; 2000 - Akashi, Isehara*; 2002 - Chiba, Kawasaki**, Osaka (achieved at all factories)			A
	Research and Clerical and Marketing Target: maintain 2000 levels in respect of total waste products generated Actual: lower than 2000 levels in both divisions			A
Chemical substances management	Target: achieve individual reduction targets for each factory Actual: gradually reduced through thorough process management at individual factories			A
Green product development	Target: reduce environmental burden by progressing six major topics Actual: all six topics achieved, including introduction of MES detergents and TES softeners			A
Reductions in packaging materials	Target: write and implement reduction plans for major initiatives Actual: achieved reductions in packaging materials			A
Change from PVC to other substances	Target: complete consideration of technology at the end of 2002 Actual: completed checking using testing equipment			A

* Isehara Factory: Shut down in December 2001
** Kawasaki Factory: Shut down in July 2003

2nd Medium-Term Environmental Management Plan (2004 to 2006) targets

Issues that arose out of the 1st Medium-Term Environmental Management Plan were: ongoing major environmental topics (management of energy, waste products, and chemical substances); expansion of environmental management to associated companies; and a better response to risk management. These issues, combined with social trends, and the company's management plans, formed the basis for the 2nd Medium-Term Environmental Management Plan, which lays out new directions for the company's environmental response.

As a long-term target, by 2010 the company aims to achieve a reduction of 10% on 1990 levels in carbon dioxide emissions under COP3*1.

Category	Nature of initiative and target (2006)
Energy management	Compared to 1990: 85% or less in the production division; 90% or less in the research division; 86% or less in the office division
Waste products management	Reduce waste products and promote re-use as resources
	Maintain zero emissions and achieve qualitative improvements
Chemical substances management	Better total management of chemical substances that reflects legislation and regulations
	Enhanced response to risk communication
Green products and purchasing	Use of the 3Rs*2 to reduce packaging material
	Establishment of means of providing environmental information
	Establishment of environmental criteria for the raw materials area
All-Lion Management System	Establishment of an all-Lion environmental management system that includes affiliated domestic and international companies and distribution

*1 COP3: The Third Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change. Convened in Kyoto in 1997, the conference adopted the Kyoto Protocol, which determined specific quantitative national targets for reductions in greenhouse gases.

*2 3Rs: Reduce, Reuse, Recycle

ENVIRONMENTAL ACCOUNTING

Lion performs environmental accounting, a practice in which the cost of environmental protection initiatives is managed and their results analyzed. Lion began environmental accounting in 2000, and began publishing the results from 2001. The company uses the accounting as a tool for efficient and effective use of management resources. Environmental investment, the cost (monetary) of maintaining the environment, and the effectiveness of environmental protection (physical effect)*¹ facilitate an understanding of the company's engagement in environmental protection.

Cost of environmental protection*²

Lion's environmental protection cost comprised a total of approximately 1.4 billion yen (almost the same as the previous year) invested in environmental protection facilities and equipment, and 6.4 billion yen of costs (up 400 million yen on the previous year).

In 2002 the company invested substantially in production equipment (pollution prevention) for the ingredient, MES, which has superior biodegradability, but in 2003, the focus changed to selective investment in the development of environmentally friendly, "green" products (R&D cost), and production equipment (global environmental protection) for products containing MES and the plant-based products, the Shokubutsu-Monogatari series.

Level of cost increased substantially, due to the cost of maintaining ISO14001 certification, environmental facilities and equipment, and greater production of environmentally friendly products. Specifically, there were changes in composition, to products containing the highly biodegradable ingredient, TES, and more products containing the biodegradable ingredient, MES. Rationalization of production sites through integration and closing of production plants also reduced management costs.

Cost of Environmental Protection

(Units: million yen)

Cost category	Major initiatives	Capital investment		Cost	
		2002	2003	2002	2003
1. Inside operating areas	Pollution prevention (prevention of atmospheric and water quality degradation; other)	404	247	145	352
	Global environmental conservation (energy conservation; other)	77	142	428	412
	Resource recycling (container recycling; other)	831	874	2,652	2,987
2. Upstream and downstream business activities	Outsourcing recycling as product; other	-	-	449	469
3. Management activities	Maintaining environmental management systems and education; other	-	-	674	540
4. R&D	Developing environmentally friendly products; other	48	91	1,537	1,576
5. Social activities	Displays (environment related); other	-	-	6	7
6. Environmental damage		-	-	-	-
	Total	1,360	1,354	5,892	6,343

* Some figures have been amended after scrutiny

*1 Environmental Protection Effects: The effects of environmental protection achieved from investment and maintenance cost designed to limit the burden on the environment arising from the business activities of a company.

*2 Environmental Protection Cost: The cost incurred in limiting the burden on the environment attributable to the business activities of a company, and the cost associated with that. In this definition, investment in environmental protection and the cost (of maintaining it) are separated.

Method for setting coefficients of environmental friendliness

In calculating the environmental protection cost (capital investment and level of cost), Lion used coefficients of environmental friendliness, which are company standards based on the Guideline for Evaluating Costs issued by the Japanese Ministry of the Environment. Coefficients of environmental friendliness evaluate the effectiveness of products, facilities, and equipment in protecting the environment and are used to calculate the environmental protection portion of figures for capital investment and level of cost.

For example, the coefficient for facilities and equipment to limit environmental load overall and the environmental load of processes was set at 1.0 (overall). We used the following "coefficients of environmental friendliness by product" to calculate capital investment and level of cost related to products that incorporate features that are gentle on the environment.

Coefficients of environmental friendliness by product

We evaluated in detail the environmental load reduction effect for all Lion products by content and container. Based on that, we then classified all products into four levels with the following coefficients (0, 0.1, 0.5, and 1.0). These four levels of coefficients represent environmental friendliness by product. We calculated the related portion of the environmental protection cost by multiplying these "coefficients of environmental friendliness by product" by the capital investment and level of cost for each facility or piece of equipment. When the same facility or piece of equipment is used to produce more than one product, we weighted the portion of the environmental protection cost based on the percentage of the production volume.

Environmental protection effects

Lion succeeded in reducing nearly all management indices for environmental protection on the previous year's levels.

In particular, progress on the 2003 targets for energy savings (reductions in carbon dioxide emissions and water use), and waste product measures (reduction in total volume, ongoing zero emissions) led to substantial positive outcomes in terms of reducing the volume of energy and tap water used, and the amount of industrial waste products. Conversely, dust emissions increased, due to substantial increases in operating rates from increased production. This is an issue requiring improvement, and is scheduled to be addressed. Otherwise, low-emission gas vehicles and light vehicles were introduced to the marketing division, and effective progress was made in environmental protection effectiveness (pollution prevention, energy saving).

Detail on initiatives is provided at the relevant pages.

Environmental Protection Effects (Physical Quantity)

Effect	Type of index	Result	YoY	Relevant page
1. Resources input to operational activities	Energy (CO ₂ equivalents, tCO ₂)	81,015	94%	Page 14
	Amount of packaging materials used (t)	67,632	96%	Page 19
	(Breakdown) Plastic	19,185	95%	
	Paper	43,648	98%	
	Other	4,799	87%	
	Volume of tap water used (m ³)	377,775	85%	
	Volume of industrial water used (m ³)	553,010	83%	
2. Environmental burden and wastes	NOx emissions (t)	33	82%	
	SOx emissions (t)	1	93%	
	Total COD (t)	5	68%	
	Total wastes (t)	5,264	80%	Page 16
	Volume of resources recycled (t)	3,558	70%	Page 16
	Volume of effluent (m ³)	464,318	84%	
	Dust (t)	22	119%	
3. Effect on upstream and downstream business activities	Wastes (t)	2,730	97%	
4. Effect on transport and other	Energy (gasoline, CO ₂ equivalents, tCO ₂)	2,391	92%	Page 14

* Some figures have been amended after scrutiny

Method for calculating environmental protection effects

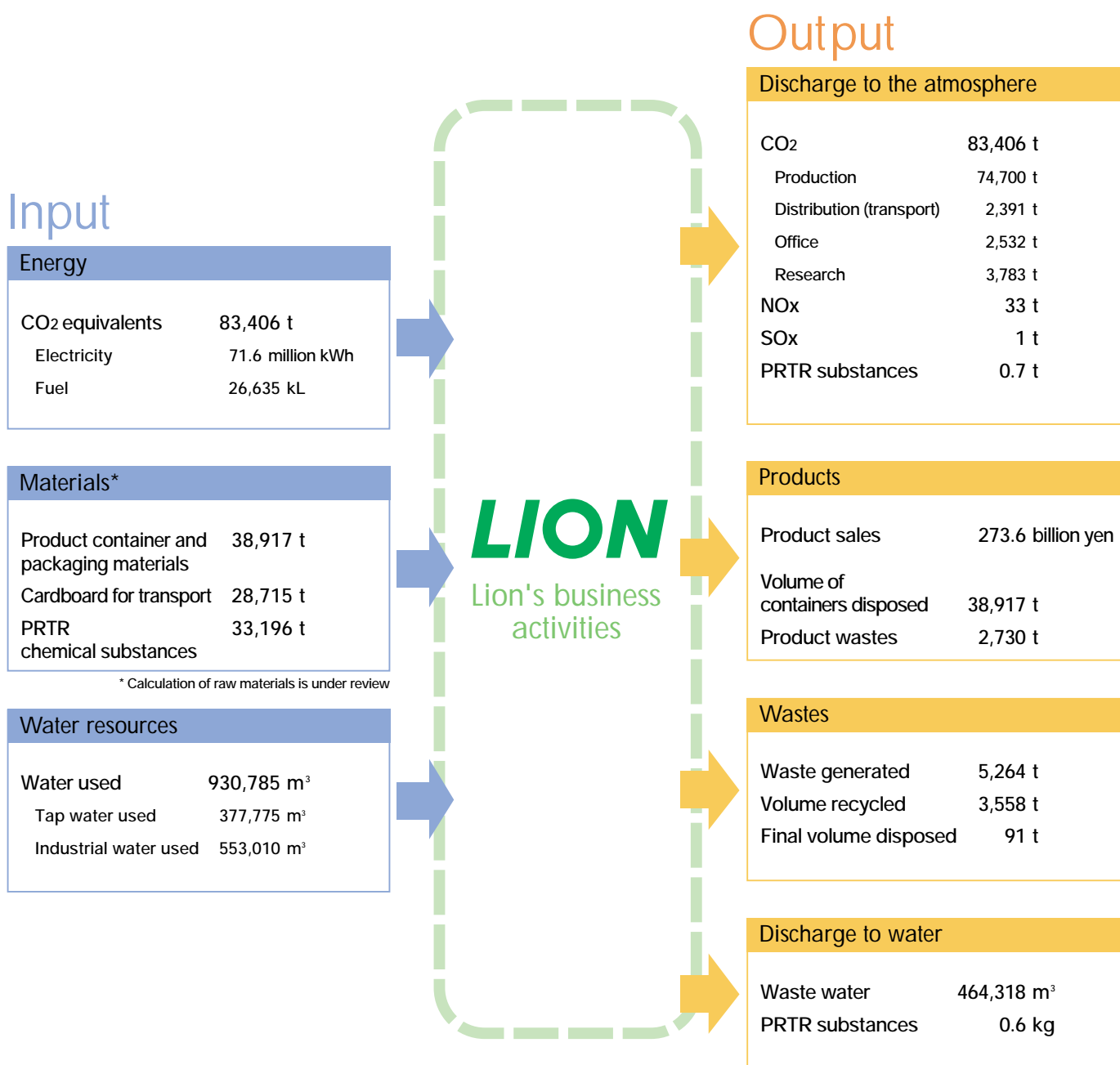
Environmental protection effects are expressed only in physical quantitative terms. Official methods for objectively calculating physical quantity, such as the Japanese Ministry of the Environment's method for converting energy into carbon dioxide, have been used. We are now considering appropriate methods to express effects of environmental protection, including "deemed effects," in monetary terms.

The basic principles underlying calculations are as follows:

- (1) The method of aggregation is as per Environmental Guidelines 2002 ed. (Comparative table B was used, and only physical effect is given).
- (2) Only Lion was the target of aggregation (6 offices, 5 factories, 3 research districts) and associated companies have not been included.
- (3) The period of aggregation equates to the company's accounting year, and was from January to December 2003.
- (4) Environmental Protection Cost was calculated using company standards, based on the Ministry of Environment Guideline (used coefficients of environmental friendliness).
- (5) Environmental Protection Effects are recorded with particular focus on Lion's management targets of energy saving and waste products.

OUTLINE OF THE ENVIRONMENTAL BURDEN ASSOCIATED WITH LION'S BUSINESS ACTIVITIES

Each year, Lion's environmental protection activities start by gaining as accurate an understanding as possible of the environmental influences associated with the many and varied aspects of the company's business activities, including: R&D, manufacturing, products, distribution, and sales.



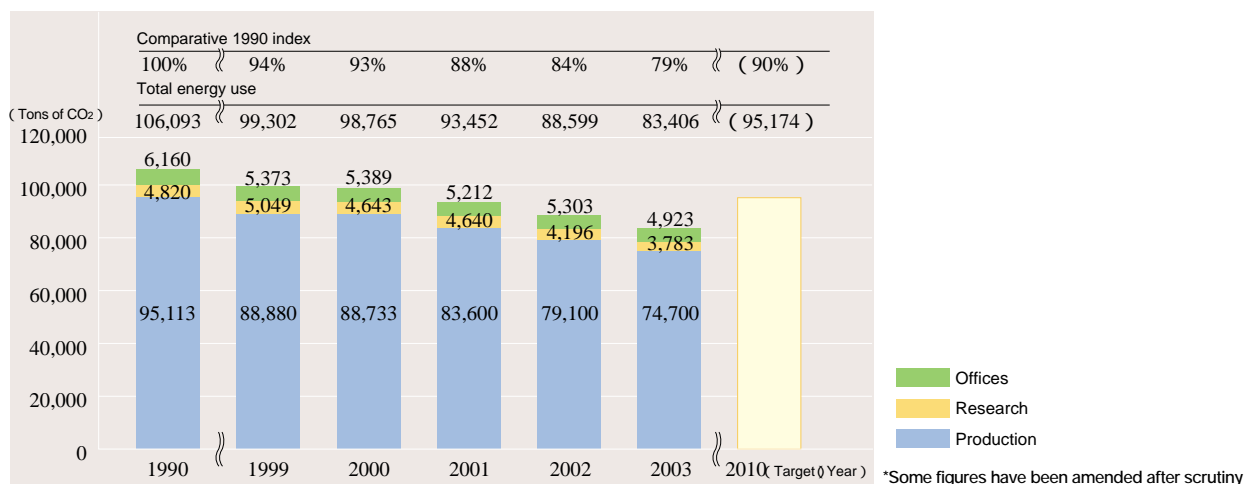
PREVENTION OF GLOBAL WARMING AND OF AIR AND WATER POLLUTION

Lion has established long-term targets that it is working to achieve in relation to preventing global warming, which has become a topic of global proportions. The company has also devised a variety of measures for the prevention of air and water pollution.

Initiatives to prevent global warming

At the Third Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change*1 convened in Kyoto in 1997 (known as COP3), the Japanese government committed to reducing emissions of greenhouse gases*2 between 2008 and 2012 to 6% less than in 1990. That commitment is the basis on which Lion has set its 2010 target for emission of greenhouse gases; 10% less than in 1990. To achieve the target, each division has undertaken to implement its own individual measures, but is engaged primarily in reducing greenhouse gases by reducing energy use.

Trends in energy use (in CO₂ equivalents*3)



Air pollution prevention

Lion is carrying out environmental impact assessments as necessary, and managing and improving air pollution prevention.

As a result of introducing cogeneration capability to all factories, NO_x has trended upwards, but in 2003 the company focused on management and succeeded in reducing emissions through stable operation. An increase in production levels at the Osaka factory has caused dust levels to increase. Lion will focus on reducing emissions overall, including NO_x and SO_x.

Protection of water resources

The company manages water use and effluent to protect water resources, and is working to reduce environmental burden.

At the Tokyo factory Lion reviewed its waste-water management mechanisms, and was able to improve water saving efficiency. In the office and research divisions also, the company is engaged in introducing sanitation equipment that has a water-saving effect, and other measures. We also succeeded in reducing both the use of water and effluent volumes by amalgamating production sites.

COD*4 was reduced by managing wash effluent from plant.

*1 Convention on Climate Change: The United Nations Framework Convention on Climate Change has as its objective the reduction of greenhouse gases. Took effect in 1994.

*2 Greenhouse gases: Gases such as carbon dioxide and methane, which are said to have the effect of warming the planet.

*3 CO₂ equivalents: Using a carbon dioxide emissions coefficient from a study by the Ministry of the Environment on methods for calculating greenhouse gas emissions, the amount of energy used is converted to an amount of carbon dioxide emissions.

*4 COD: Chemical Oxygen Demand. An index of water pollution, which indicates the amount of oxygen consumed to oxidize and break down organic substances in water.

CHEMICAL SUBSTANCE MANAGEMENT

Companies that handle chemical substances have a responsibility in all their processes to consider the environment and safety. Lion pursues voluntary environmental management, which includes accurately assessing and improving its data on use and emission of chemical substances.

Thorough management of chemical substances

Chemical substances are essential to an affluent and comfortable life. If appropriate management is neglected, however, and accidents occur, there is a risk that it will significantly impact on human health and the natural ecosystem. Lion has therefore developed the system, which in the first instance ensures adherence to all associated laws and regulations, and ensures thorough management of chemical substances across all processes.

Involvement in safety checking for High Production Volume (HPV) chemicals

The OECD has a program to provide data and publish results on the environmental and health effects of high production volume (HPV) chemicals; chemicals for which annual production is 1000 tons or more. The International Council of Chemical Associations (ICCA) has created consortiums for each type of substance as part of its responsible care program, through which it supports the HPV work. Lion has been a participant in the ICCA-LAS consortium since 2001.

Response to the Pollutant Release and Transfer Registers Law (PRTR Law*1)

In the production and research divisions, the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting of the Improvements in Their Management (the PRTR Law), promulgated in 2001, is the basis for management of the target chemicals and reporting on amounts of the relevant chemicals released and transferred. Actual figures for the period April 2003 to March 2004 were lodged with the jurisdictional authorities.

Release and transfer of PRTR designated chemical substances

Ordinance number	Substance	Emissions (kg/yr)				Movements (kg/yr)			
		Atmospheric air		Public waterways		Sewerage		Wastes	
		2002	2003	2002	2003	2002	2003	2002	2003
1	Water soluble zinc compounds	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0
24	Linear alkyl benzene sulfonates and their salts	510	710	21	0.4	0.0	0.0	66,000	72,000
43	Ethylene glycol	0.0	0.0	0.0	0.0	0.0	0.0	3,700	0.0
47	Ethylenediamine tetraacetic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166	N,N-dimethyldodecylamine N-oxide	0.0	0.0	0.7	0.0	190	97	310.0	3,300
283	Hydrogen fluoride and its water-soluble salts	(0.0)	0.0	(0.0)	0.0	(3.9)	4.6	(5.7)	6.8
304	Boron and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	310	0.0
307	Poly (oxyethylene) alkyl ether	46	1.8	2.4	0.2	10	10	2,400	28,000
179	Dioxins	12.4mg-TEQ	11.0mg-TEQ	0.0	0.0	0.0	0.0	8.1mg-TEQ	1.9mg-TEQ

* The figures in brackets in fiscal 2002 were not included in the PRTR Law reporting, as the amounts handled at each operating site were from one ton up to less than five tons.

* None of the above includes discharge to soil at operating sites, or land fill disposal at operating sites.

* There were no substances at the Akashi factory that needed to be reported.

* The increase in atmospheric emissions was due to increased production at the Osaka factory.

* The increase in amounts moved to waste was a one-off increase, primarily as a result of closure of the Kawasaki factory.

* In addition to the PRTR Law, Lion reported chemicals in compliance with metropolitan Tokyo and Osaka regulations.

*1 PRTR Law: Pollutant Release and Transfer Registers Law. Establishes obligations to report amounts of designated chemical substances released or transferred, and to complete MSDS (Material Safety Data Sheet), for businesses handling specified chemicals.

REDUCTION OF WASTE PRODUCTS

Lion is engaged in reducing waste products and in recycling, with a view to the formation of a recycling-oriented society. In the production division, we are seeking to achieve further qualitative improvements on the zero emissions*¹ achieved at all factories.

Waste reduction and improvements in recycling

At Lion every division is engaged in measures to reduce the amount of wastes produced, in keeping with the spirit of the Basic Law for Promoting the Creation of a Recycling-Oriented Society.

Examples:

Production Division

- Amalgamation of production sites
- Reduction of wastes through new technologies in the manufacture of intermediary materials in detergents
- Reduction of wastes through reuse of effluents generated in cleaning when switches are made in production

Office/Research Division

- Reduction of waste and improvement in recycling through strict separation of waste materials
- Promotion of re-usable packaging for transporting products
- Thoroughgoing management of data on waste

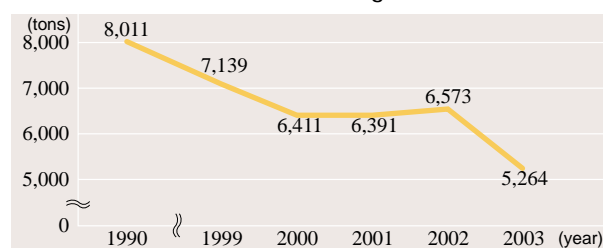
As a result of these efforts, the overall amount of waste generated has decreased, and proportion of recycling has improved. In 2003, Lion reduced the final disposal volume*² by 84 tons compared with 2002.

Quality improvement in zero emissions in the production division

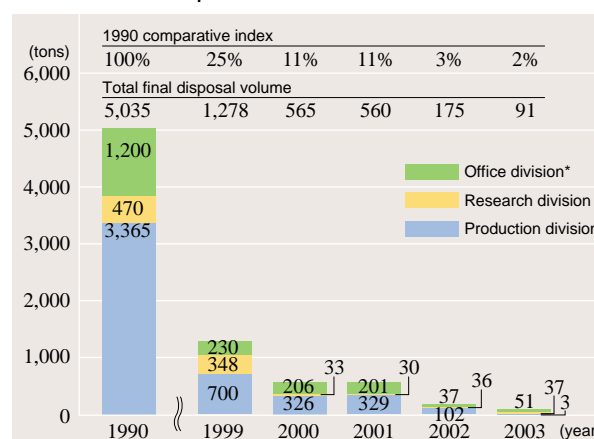
Zero emissions were achieved in 1999 at the Odawara and Tokyo factories, in 2000 at the Akashi factory, and in 2002 at the Chiba, Kawasaki and Osaka factories (the Kawasaki factory was shut down in July 2003). At the present point in time the company is seeking to achieve improvements in the quality of zero emissions.

In 2003, Lion had been re-using the filtrate from waste liquid containing detergent ingredients as a resource in thermal recycling*³, but through incineration it was also recycled as a material*⁴. We also removed the water from treated effluent sludge, and applied it as a raw material for cement.

Trends in overall amount of waste generated



Trends in final disposal volume



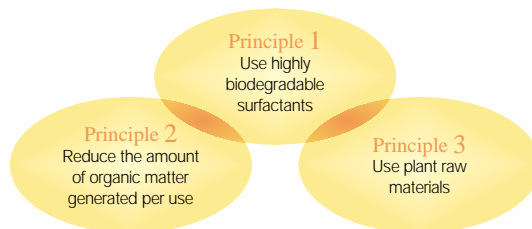
* Office division data prior to 2001 includes thermal recycling
 * Some figures have been amended after scrutiny

*1 Lion's definition of zero emissions: The proportion of total waste products emitted that is re-used as a resource is 99% or better. Does not include the residue from such re-use.
 *2 Final disposal volume: The final volume of waste products disposed of. Does not include the residue from re-use as a resource.
 *3 Thermal recycling: The re-use of waste products as a source of heat.
 *4 Material recycling: The re-use of waste products as a raw material.

DEVELOPMENT OF PRODUCTS THAT ARE IN HARMONY WITH THE ENVIRONMENT

Lion, which provides customers with products that are an integral part of their daily lives, believes that as a company, it has a social responsibility to develop environmentally responsible products. In our product development we pursue high quality and functionality that will satisfy our customers, while at the same time conforming to Lion's own three principles for developing environmentally friendly formulations and focusing our environmentally responsible effort primarily on protection of the aquatic environment.

Three principles for developing environmentally friendly formulations

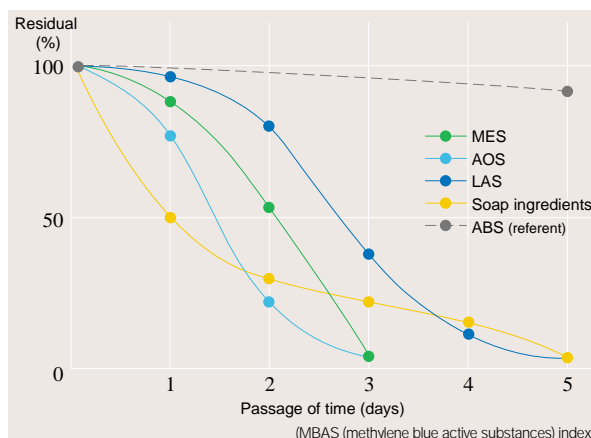


Use surfactants*1 that readily biodegrade

The phenomenon of biodegradation occurs when organic matter breaks down into inorganic matter, such as carbon dioxide (CO₂) and water (H₂O), through the action of micro-organisms, or is taken up into part of a living thing. In the 1960s, ABS*2, a surfactant used in detergents, did not readily biodegrade, and gave rise to the problem of foaming in rivers. Lion converted its detergent raw material to the readily biodegradable LAS*3, then subsequently developed its own surfactants with highly biodegradable characteristics: AOS*4 and MES*5.

Our current surfactants are, like soap, readily biodegradable, and are therefore not residual in the environment for a long time. We also use TES (esterquats based on triethanolamine) as an ingredient in softeners, as it is highly biodegradable.

Biodegradability of various surfactants (Model tests in laboratories)

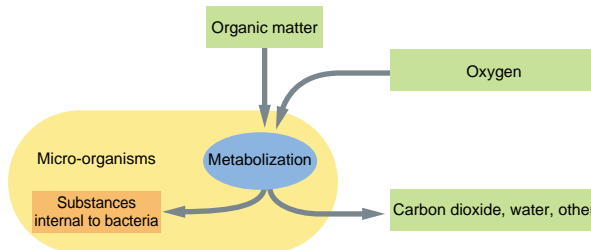


*Source: Yukagaku, Journal of the Japan Oil Chemists' Society, 42, 643-648 (1993)

Lion uses MES, a surfactant developed in-house, in laundry detergents



Concept of biodegradation



The phenomenon of biodegradation occurs when organic matter breaks down into inorganic matter, such as carbon dioxide (CO₂) and water (H₂O), through the action of micro-organisms, or is taken up into part of a living thing.

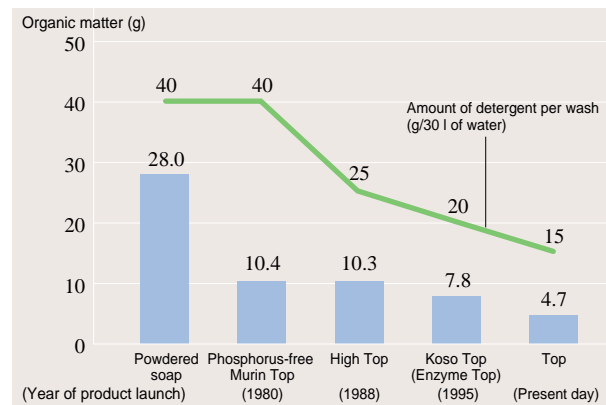
*1 Surfactant: Primary ingredient in detergents and soaps. The molecule contains a part that binds with oil and a part that is attracted to water, so that when it binds with oil, the cause of dirt, and the clothes, and water soaks into the dirt and fibers, this allows the dirt to be taken out into the water.
 *2 ABS: A type of surfactant, and an abbreviation for branched chain alkyl benzene sulfonates. ABS does not readily biodegrade.
 *3 LAS: A surfactant, and an abbreviation of linear alkyl benzene sulfonate. Readily biodegradable.
 *4 AOS: A surfactant, and an abbreviation of α -olefin sulfonate. Readily biodegradable.
 *5 MES: A surfactant, and an abbreviation of α -methyl ester sulfonates. Made from plants, is highly biodegradable, and has superior washing power to LAS.

Reduce the organic matter generated per use

The primary ingredient in soaps and detergents, a surfactant, is organic, and is discharged after washing. Lion has been working to reduce the amount of detergent used per wash by enhancing the detergency of our detergents, to reduce the amount of organic matter from washing, and to lighten the burden on the aquatic environment.

The amount of organic matter from a single wash using the current Top product is now approximately one fifth that of powdered soaps.

Organic matter discharged per wash

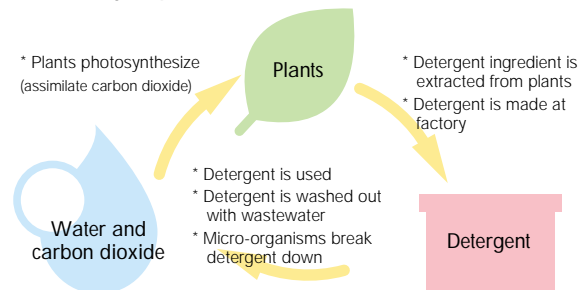


Use plant ingredients

Lion has focused on plant resources, such as palms and coconuts, for their lesser burden on the environment and absence of concerns about depletion, and has developed MES, a surfactant made from palm and coconut oil. MES is highly biodegradable and has superior detergency, so that even in low concentrations it is highly effective. MES is used in Lion's laundry detergents; Top, Heyaboshi Top, and Blue Dia.

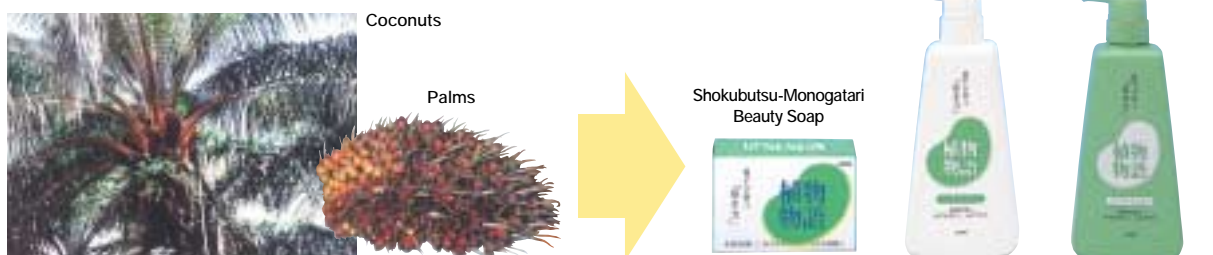
Using a high purity distillation manufacturing method based on Lion's own technology, we extract only the necessary substances from plant raw materials to make the Shokubutsu-Monogatari (Plant Story) beauty soap. The other products in the series, a shampoo and a body soap, also use a variety of plant ingredients.

Re-usability of plant raw materials



Soaps and shampoos made from plant ingredients break down into water and carbon dioxide after use, travel around the world, and are re-absorbed by plants, in a continuous cycle. Unlike oil resources, which are limited, plants can be cultivated, and are therefore a re-usable raw material.

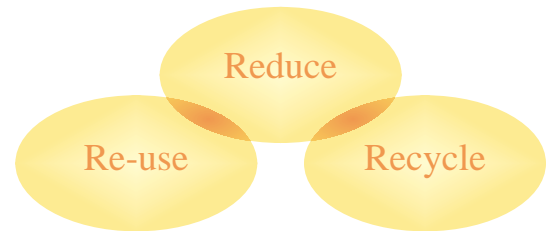
The Shokubutsu-Monogatari (Plant Story) series, which grew from plant raw materials



ENVIRONMENTALLY RESPONSIBLE CONTAINERS AND PACKAGING

Containers for Lion products are often discharged as rubbish after use. It is therefore a serious task that we reduce the amount of containers and packaging used, even by a little, and thus ultimately the amount of rubbish disposed by households. At Lion, we actively promote the 3R's - Reduce, Re-use, Recycle - and have implemented a number of different initiatives to reduce containers and packaging.

3Rs for reducing containers and packaging

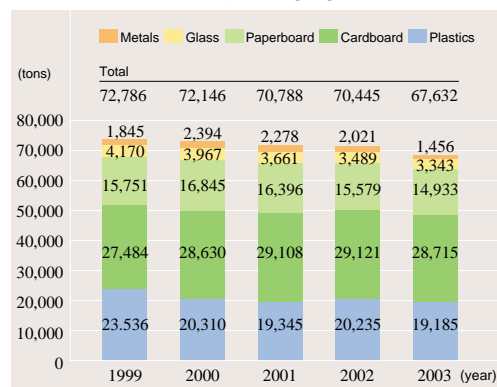


Reduce

- More compact products in innovative containers

The most effective means of reducing rubbish is to reduce containers and packaging itself. Lion has sought to make the products themselves more compact, and to innovate the structure of containers, which is resulting in a steady reduction in the volume of containers and packaging used. For example, the amount of Top laundry detergent used per wash has fallen 63%, from 40 grams in 1980, to the current 15 grams, through improved performance. As a result, the weight of the Top container has also been reduced by 69%. In 2003, we made progress in the overall amount of materials used in containers and packaging, achieving a reduction in total use compared to 2002, of 2,813 tons.

Trends in amount of packaging material used



Reduction initiatives

[More compact products]

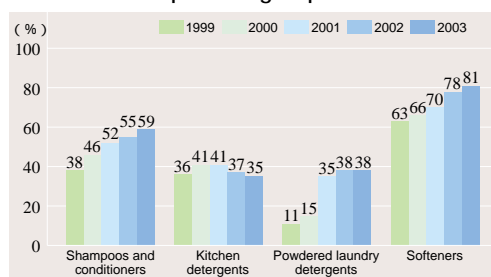


Re-use

- Greater use of refill products

Plastic bottles used to contain kitchen detergents and shampoos may be repeatedly re-used, simply by refilling the contents. Since 1992, Lion has sought to increase the use of refills, in an effort to make effective use of resources and reduce household rubbish. As at the end of 2003, Lion sells 43 refill products, covering a wide range of areas, including: shampoos, conditioners, kitchen detergents, laundry detergents, and softeners.

Trends in proportional sales of refill products for Lion's main product groups



Rubbish reducing effect of refill products



* Photo includes products since fall of 2004

THE BUSINESS OF CHEMICALS AS AN ENVIRONMENTAL RESPONSE

In addition to Lion household products that are useful in daily life, the company has another face, that of the business of producing chemicals, and specifically, industrial chemical products for all manner of industries.

The Chemicals Division uses the motto EPOC, short for: Ecology, Performance, and Oleo-Chemicals. Intrinsic to its message is the concept of providing a useful service to industry's environmental action, through the provision of functional (performance) chemical products that are friendly to the environment (ecology), and chemical products derived from vegetable oils (oleo-chemicals).

For example, Lion's aqueous detergents, used to wash precision parts, use the company's own micro-emulsion washing technology, and were developed as aqueous washing agents that included no trace of CFCs or organic solvents. The products support environmental measures on production lines for liquid crystal displays and digital household appliances.

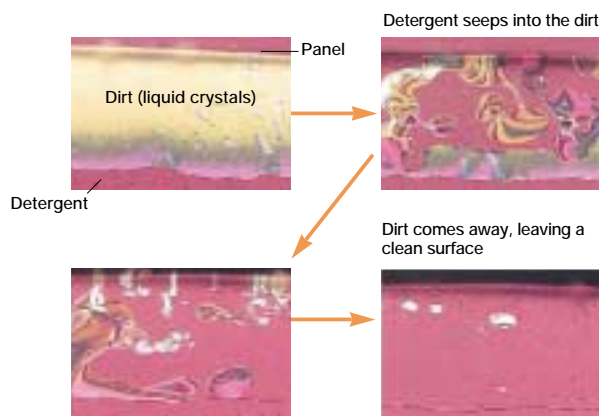
De-inking agents, which are indispensable in the recycling of paper, are surfactants that remove ink in the manufacture of recycled paper from old newspapers and magazines. For 30 years, Lion has provided new product and technical support to paper manufacturers, a service which in turn contributes to the protection of forests.

Ketjenblack, electro-conductive carbon, contributes to energy savings, as it is used for electrodes in fuel cells, regarded as a potential clean source of energy. A highly functional product of this nature may be introduced overseas as well as in Japan, playing a part in environmental protection on a global scale.

Fatty acid methyl ester, produced using palm and coconut raw materials, and highly biodegradable, is a safe substance whose environmental burden has been kept to a minimum and thus presents no cause for concern. Lion therefore uses it as a raw ingredient in its household detergents. However, it is also used for industrial applications, primarily in a variety of detergents. One example of a unique application is its use as an additive to clean gas emitted during incineration of industrial waste products. Carotene extracted from palm oil is also attracting interest in the health foods area as a natural form of carotene.

Through the development of EPOC products of this type, therefore, Lion is steadfastly supporting environmental action and healthy lifestyles in ways that are not immediately obvious in our daily lives. We will continue to provide back-up to environmental action designed to bring on a sustainable, recycling-oriented society, as our customer's and industry's best partner.

Aqueous detergents for precision parts



De-inking agent for recycling paper



Plant-derived raw materials

