

# The Kirin Group CSR Report

# The Kirin Group Corporate Social Responsibility Report

# 2005



# KIRIN

# Company Profile

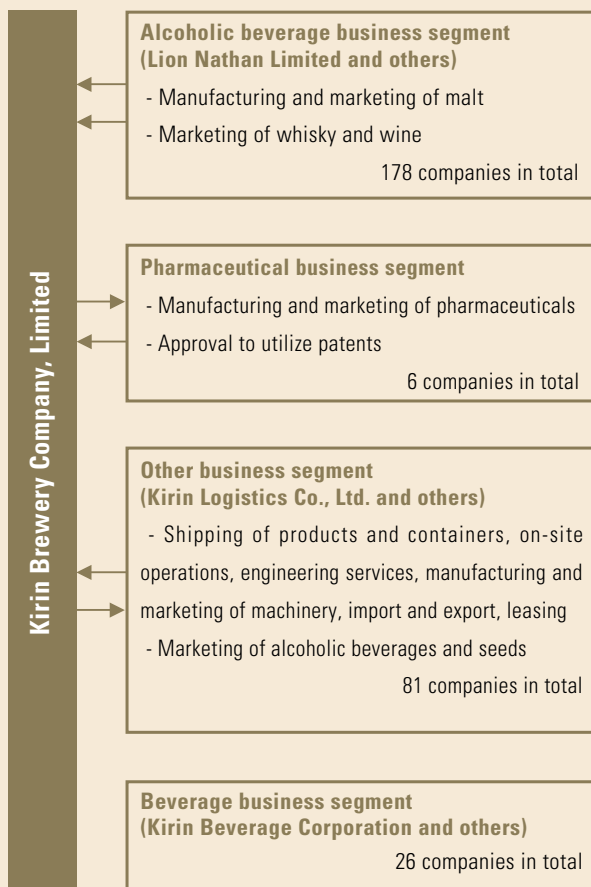
Trade Name	Kirin Brewery Company, Limited		
Date of Incorporation	23 February, 1907		
Head Office	2-10-1 Shinkawa, Chuo-ku, Tokyo 104-8288, Japan		
Telephone	+81-3-5540-3411 (information desk)		
President and CEO	Koichiro Aramaki		
Paid-in Capital	102,045,000,000 yen		
Main Business	Manufacturing and marketing of alcoholic beverages, soft drinks, pharmaceuticals and other goods		
Business Locations:	Head office, 10 regional headquarters, 40 branches, 20 branch offices, 12 plants (11 breweries, 1 pharmaceutical plant), 8 research laboratories, 1 hop management center, 8 pharmaceutical branch offices.		
Number of Employees	5,439		
Consolidated Group Companies:	Consolidated subsidiaries	276	Affiliates under the equity method 15

As of December 31, 2004

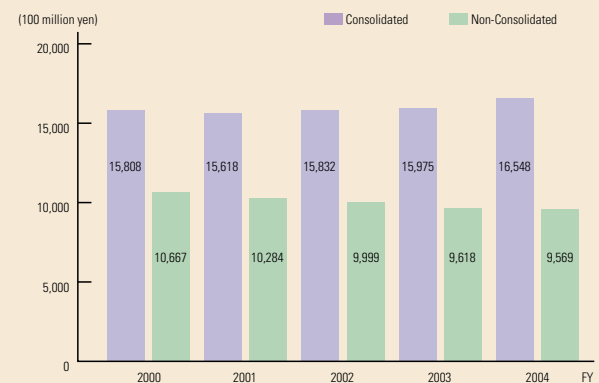
## Organizational chart

The Kirin Group, the center of which is Kirin Brewery, is made up of 276 subsidiaries and 15 equity-method affiliates.

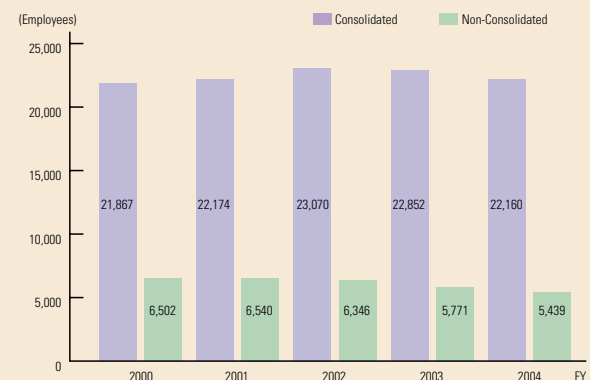
The operational organizational chart is as follows:



## Sales



## Number of employees



# Editorial Policy

Kirin Brewery has been releasing an annual Environmental Report since 1994. During this period, we have been reporting on economic and social activities, not just environmentally focused initiatives. In order to spearhead the Kirin Group's CSR initiatives, we established a CSR & Corporate Communications Division in March 2005, and to change the Environmental Report to the CSR Report. The report is still being developed, but the focus will be on the future complexion of our corporation, and on initiatives undertaken towards a corporation trusted by all its stakeholders, including customers, shareholders, local communities, suppliers and employees. The Kirin Group CSR Report 2005 was edited with the following points in mind:

(Note: CSR is an abbreviation of "Corporate Social Responsibility," which is generally interpreted to mean "corporate social responsibility," but at the Kirin Group we define CSR as "initiatives to earn society's trust.")

- We have endeavored to present a clear window on the Kirin Group's idea, illuminated by descriptions of what we are actually doing to help build a sustainable society.
- In introducing each activity, we have not only described our way of thinking but also presented our planned course of action.
- We have used as a reference the FY 2003 version of the Ministry of the Environment's Environmental Reporting Guidelines and the Global Reporting Initiative's (GRI) FY 2002 version of the Sustainability Reporting Guidelines. The GRI guidelines comparison chart is available on our website.
- To raise the level of objectivity and transparency of the environmental information, it has been verified by a third party and we have included its comments.
- This report covers the period from January through December 2004, but some 2005 activities and initiatives are also included.
- The scope of this report is Kirin Brewery Company, Limited and its main related companies.

**Kirin Brewery announced its participation in the United Nations Global Compact Initiative in September 2005. We support the objectives of the Global Compact in respect of environmental protection, human rights, labor rights and anti-corruption.**

- Published October 2005  
(Next publication planned for August 2006)

## Contact Details

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## Contents

- Company Profile .....	2
- Contents and Editorial Policy .....	3

## Highlights

- Message from the President .....	4
- The Kirin Group's CSR .....	6
- Discussion: The Kirin Group's CSR Philosophy .....	8
- Initiatives on Alcohol-Related Issues .....	10
- Initiatives for Reducing CO <sub>2</sub> Emissions .....	12



## Governance

Corporate Governance .....	15
Risk Management / Compliance .....	17



## Economic Report

Financial Highlights for the Kirin Group .....	21
Economic Relations with Stakeholders .....	22



## Social Report

Making the Most of Customer Opinion .....	25
Commitment to Quality .....	26
Our Responsibilities for Alcohol-Related Problems .....	28
Relations with Suppliers .....	30
A Lively Working Environment .....	31
Advancing Side by Side with the Community .....	34



## Environmental Report

The Kirin Group's Environmental Philosophy .....	37
Kirin Brewery's EcoBalance .....	38
Targets and Results .....	40
Driving Environmental Management .....	42
Water Initiatives .....	44
Packaging Initiatives .....	46
Initiatives to Prevent Global Warming .....	50
Resource Recovery Initiatives .....	54
Environmental Communication .....	57
Independent Verifications .....	58

# The Kirin Group aims to be a trustworthy corporate group by strengthening CSR initiatives.





## **Making the best use of “connection” with customers, the Kirin Group implements CSR activities in its distinctive ways.**

It is widely recognized that the support of various stakeholders, including customers and suppliers, is of paramount importance for any business entity. The Kirin Group understands this and defines corporate social responsibility (CSR) as “an approach to earn the trust of the society,” and makes sincere efforts to conduct its business activities.

Our main products include beer, soft drinks and food products that come straight out of our plants, and they have been relished by various customers of different ages.

In consideration of these business characteristics and a key concept of “connection” with our customers, we strive to implement CSR activities in Kirin's own ways. Based on this concept, the Kirin Group, as one of food production companies, intends to manufacture quality products and provide ‘health’, ‘enjoyment’, and ‘comfort’ for people all over the world.

### **‘Beer’ - the bounty of nature The Kirin Group addresses its commitment towards sustainability**

Plants generate oxygen following the absorption of carbon dioxide, and then animals take up the oxygen. That is a natural circulation occurring everyday on Earth. Likewise, business entities manufacture products by using natural resources, and generate in turn by-products and waste during business operations. The natural circulation system, however, has been disrupted because of the rapid development of modern civilization, and the disruption has resulted in significant, often irreversible, environmental changes. We seem to have neglected this fact for a long time, and it is time for us to conduct business activities on the same basis as the natural circulation.

It is our basic idea for advancing CSR that the business entity is like a form of life in the society. According to the basic idea, we reaffirm that our existence is part of nature, and our business activities must be harmonized with the natural circulation. Specifically, we strive to

reduce the consumption of irreplaceable natural resources that play crucial roles in the circulation system in order to strike and maintain a balance between production and consumption.

Since our products are mostly made from agricultural products and water, we emphasize the importance of the circulation and environmental sustainability. To continue to provide “delicious”, “safe” and “pleasant” products, it is inevitable for the Kirin Group to work on agriculture practices and food production. As a part of our efforts, the Kirin Group, a corporate group engaged in “Food” business, has supported a program initiated by United Nations University for 12 years that is designed to resolve food related problems in Asian nations. Specifically, we support food science and technology researchers from Asian nations to conduct research in laboratories in Japan every year, and subsequently arrange the researchers to continue their research for several years after they have returned to their home countries (see page 34).

### **From an environmental report to a CSR report, aiming to promote two-way communication**

It is our best interest to promote direct connections and communications with our stakeholders. We think that two-way communication is a fundamental element of our business activities since our products are directly handed to various stakeholders.

Notifying what we think and what we have done of stakeholders, getting opinions from them and incorporating their opinions into our CSR activities make it possible for the Kirin Group to develop as a corporate citizen.

During this reporting period, we established “CSR & Corporate Communications Division” - a division that integrates various CSR activities of the Kirin Group to realize our thought. Moreover, we announced our intention to develop an environmental report into a CSR report in order to report not only environmental but also various aspects of our business activities.

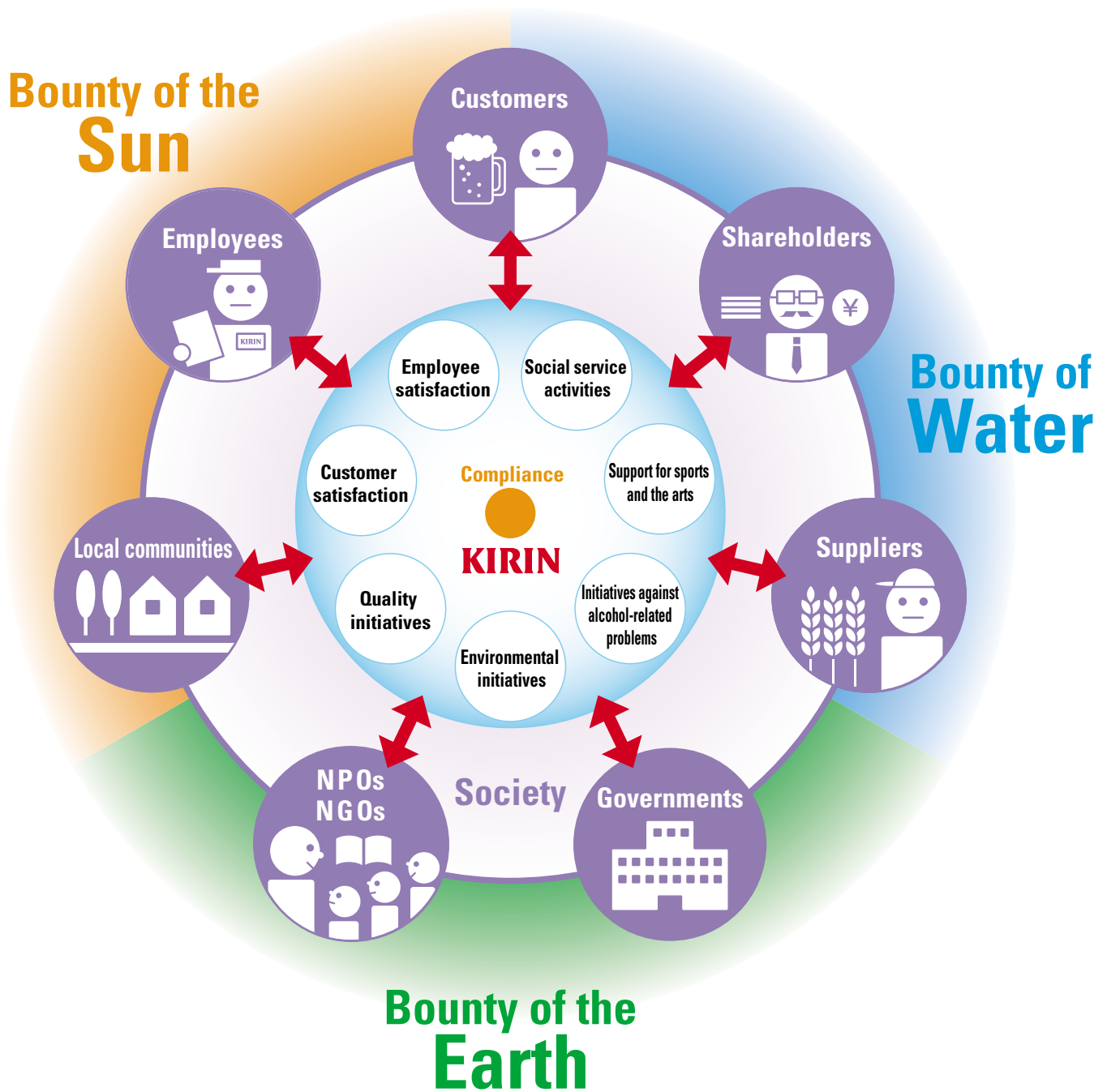
We welcome your suggestions concerning further improvements, and we hope to incorporate them into our business activities to further develop along with society on a sustainable basis.



**Koichiro Aramaki**

President and CEO,  
Kirin Brewery Company, Limited

# Towards sustainable society



The Kirin Group makes products using natural capital, and supported by society at large, including our customers, shareholders, suppliers, employees, and communities in which we operate. "Kirin-style CSR" guides us to take a positive role in contributing to a sustainable society and the global environment in collaboration with stakeholders.

## The Kirin Group CSR Declaration

The Kirin Group contributes to the development of a sustainable society through its business activities centered on food and health.

Each management and employee are proactively involved in these initiatives.

- We provide safer, more reliable, and better quality products and services in response to the expectations of our customers.
- We undertake business activities harmonizing the global environment, and strive for its conservation.
- We contribute to resolve social issues to enrich people's lives through engaging and supporting various activities.
- We provide a workplace that is rewarding and facilitate personal development of our employees.



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### Corporate Philosophy

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**We contribute to the health,  
enjoyment and comfort of people all over the world.**

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### Corporate Guidelines

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#### **Customers Standards / Quality Standards**

We strive to develop our own technologies and supply products and services that are valuable to customers.

#### **Fair and Open Activities**

We strive to be a trustworthy corporate group by engaging in fair and open business activities.

#### **Respect for Humanity**

We strive to be a corporate group in which individual employees can exercise their initiative and creativity and enjoy a rewarding work life.

#### **Sound Management**

We strive to develop our management infrastructure from a long-term and global perspective and to continuously fulfill our responsibilities to customers, shareholders, the communities where we do business, and employees.

#### **Social Contributions**

We continuously strive to make positive contributions to society and to take global environmental concerns into consideration in our business activities.

# New integrated division facilitates better stakeholder contact



**"To enhance our focus on communication with all stakeholders, we have integrated several divisions into a new division."**

**Shozo Sawada**

Managing Executive Director  
Kirin Brewery Company, Limited

## CSR is management itself

**Akiyama:** The impression I have of the Kirin Group is one of a long history of being steadfast, and, in a way, conservative, and even though your products are well known, I think your message as a company has not been strong.

**Sawada:** If CSR is the process of continually presenting a vision of how the company is progressively contributing to society in response to society's expectations, I think this is the same thing as management itself. We have integrated all the divisions that have contact with our stakeholders into the CSR & Corporate Communications Division in order to strengthen two-way communication with our stakeholders.





**Akiyama:** You could say the birth of the division to unify your CSR activities with your stakeholder relationships is taking a step in a new direction. If you can deliver a high-impact message to society at the same time, I think there will be benefits in terms of your operations.

**Mori:** The way we communicate with our various stakeholders is important to our roll-out of CSR activities.

**Akiyama:** The basis of communication is sincerity, so rather than just considering things within the company, you need to listen to opinions from outside the company, understand your stakeholders' expectations, and earnestly adopt a system of disclosing information based on these expectations.

### Employees themselves are important stakeholders

**Sawada:** The first task for the new division is to promote an understanding of CSR among our employees. The way we transmit top-level and management-level ideas to our 22,000 Group employees will be a crucial factor.

**Akiyama:** What must not be forgotten is that the employees who have contact with the stakeholders in general are themselves important stakeholders. By directly taking feedback from employees on board, the opinions of the stakeholders with whom each employee has contact can be heard. It is necessary to drive home the significance of CSR activities to each and every employee, and to ensure that they adopt Kirin's CSR declaration. To achieve this, it must be repeatedly reinforced that top executives and management are taking CSR seriously, and over time it must be melded into corporate culture. Group companies and suppliers must also adopt the same declaration towards CSR.

**Sawada:** In addition to training for employees, we have recommended in each activity plan that management should talk about CSR in each office they have the opportunity to visit. When we talk to employees about CSR activities, we do so in a way that allows them to draw parallels to their work and home life, so that



**"Our CSR activities contribute to promoting the Kirin brand."**

**Hideo Mori**

General Manager  
CSR & Corporate Communications Division Director  
Kirin Brewery Company, Limited



**"Employees themselves are important stakeholders. They should each adopt Kirin's CSR declaration."**

**One Akiyama**

President  
Integrex Inc.

the concept is easy to understand.

**Mori:** Kirin products are made from water and barley, and other bounties of nature. We therefore undertake afforestation project with employee participation to protect the forest that is the water source for each of our plants across the country. Through these kinds of experiences the employees can come to feel the importance of both nature and our CSR activities.

**Akiyama:** Yes, these kinds of experiences are very important. I also think it is excellent that you support employees who participate in volunteer activities with volunteer leave and so on.

**Sawada:** When people in the local community tell us, "We're glad Kirin is here," and they have a positive image of us, that motivates us to give something back to society and to continue our corporate activities.

### Our image of reliability would strengthen the Kirin brand.

**Mori:** As a part of our strategy for pursuing ongoing corporate growth, I would like to take advantage of our CSR activities to promote the Kirin brand.

**Akiyama:** Society's image of Kirin is of a manufacturer of products you can trust, and Kirin is a top brand. So if you convey information about your endeavors well, the image of reliability should strengthen the brand. Ideally, your employees will put the slogan "ureshi o tsugi tsugi to" meaning "happiness, one after another" into practice, which will create a positive cycle and return a good response from customers. When individuals at Kirin think as a Group, even if their roles are different, and everyone adopts a philosophy of contributing to the health, enjoyment and comfort of people around the world, it sends a powerful message. Also, thinking about your social responsibilities as an alcoholic beverage producer, due to the importance of initiatives for responsible drinking, I would like to see you step up your efforts to raise awareness and supporting rehabilitation facilities.

**Mori:** Thank you very much for your important insights.

# For the enjoyment of alcoholic beverages

## Our basic policy against alcohol-related problems

When adults drink alcoholic beverages such as beer and happo-shu (low-malt beer which is thus taxed at a lower rate in Japan) in moderation, it soothes the mind and the body, and it adds pleasure to their life. On the other hand, if abused, alcohol may cause serious problems. What are Kirin Brewery's thoughts on this subject, as a business that produces and sells alcoholic beverages?

"What are the social responsibilities of a business that produces and sells alcoholic beverages? We have conducted educational activities with regard to alcohol-related issues. We have established fundamental policies in cooperation with other divisions and departments in order to gain a unified perspective. Now, when employees discuss alcohol-related issues with each other, they can speak from a shared understanding of the issues, and our customers can easily understand our position," Atsushi Higashi, Acting Manager of the CSR Management Group, said.

In May of 2004, the Kirin Group formulated and announced its "Basic Policy for Alcohol-Related Problems" (see page 28). The Policy states that we will disseminate accurate information directed toward the prevention of underage drinking, of drunk driving and of binge drinking; we will adhere to voluntary standards for sales activities; and implement appropriate training for all employees.

Higashi emphasizes that "most drinking problem is caused by a lack of understanding or a lack of information about alcohol. We have put a lot of effort into raising awareness among our stakeholders so that people consume alcoholic beverages

appropriately." (See page 28.) The formulation of the Basic Policies serves to show that we are positioned to tackle alcohol-related issues anew. It also unambiguously positions the efforts we have made in the past in a CSR perspective.

## The Marketing Ethics Committee

Atsuko Wakabayashi of the Marketing Division is responsible for the administration of the Marketing Ethics Committee. She says, "With the Basic Policies in place, we are now able to answer questions from the other departments more specifically." The Marketing Ethics Committee consists of members from 10 divisions within the company. It performs before-the-fact internal company checks on advertising and sales activities from the perspective of not only appropriate drinking but also human rights and social ethics.

For example, did you know that Kirin Brewery does not use Santa Claus or reindeer in its advertising or as storefront promotional tools? Kirin Brewery has established strict internal standards concerning advertising ethics. Santa is loved by children. Because there is a possibility of minors being attracted by his image, one of our regulations related to prevention of underage drinking is the prohibition of using Santa in our marketing. The Committee uses the Basic Policies and detailed corporate standards such as the one cited above to help it verify and respond to 10 – 15 inquiries a day from business locations all over the country.

## Future challenges and new activities

Although employees have come to understand the regulations, the reasons for them have yet to permeate the organization. But the



**"We are making every employee be conscious of alcohol-related issues while designing advertisements and conducting sales. Afterall, we want people to choose our products."**

### Atsushi Higashi

Acting Manager, CSR Management Group  
CSR & Corporate Communications Division  
Kirin Brewery Company, Limited.



**"The Basic Policies have clarified the key points for decision making. Inquiries from the other departments to the Marketing Ethics Committee are increasing."**

### Atsuko Wakabayashi

Marketing Division  
Sales and Marketing Division  
Kirin Brewery Company, Limited.



"Beer-sienne" is a seminar on all types of alcoholic beverages that is held for women. The seminar provides information on alcohol and its enjoyment and makes customers aware of the importance of drinking in moderation.

reasons for the regulations are what define the basic attitude of the company toward alcohol-related issues. Each employee must understand this thoroughly. To help with this understanding, the Committee conducts briefing sessions in which it spreads awareness of the position of the company and of the Committee's operations through concrete examples. Wakabayashi says, "We'd love to have the people responsible for advertising and promotions use the Committee as readily as they would use an information desk."

Kirin Brewery has initiated new activities since establishing the Basic Policies. April was declared "Moderate Drinking Awareness Month." We held lectures within the company. We also conducted an ethanol patch test (a simple screening method for alcohol sensitivity) for all employees. We are promoting a better understanding of moderate drinking within the company. We place warnings on our labels concerning drinking by women who are pregnant or breastfeeding. We organize a program of "Beer Classes" throughout the country at which participants are acquainted with the pleasures of drinking, and also given accurate information about drinking in moderation. Our Basic Policies are incorporated into these classes as well. Further, in order to maintain the Marketing Ethics Committee's objectivity, final responsibility for the Committee has been transferred from the marketing manager to the manager of the CSR Management Group. The activities of the Marketing Ethics Committee are now periodically scrutinized by the Internal Audit Department. Wakabayashi passionately states, "By being firm in regulating ourselves, and by being open and fair, we strive to be a company that people will choose to do business with."

\* Problems caused by improper use of alcohol, such as underage drinking, drunk driving and binge drinking

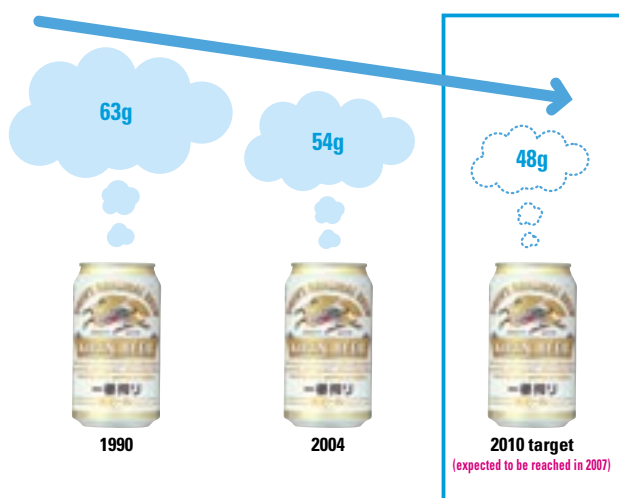


# CO<sub>2</sub> emissions reductions with a new innovative way of thinking

## Major reductions in CO<sub>2</sub> emissions and costs of biogas cogeneration

Attention is being focused on biomass energy as a technology to counter global warming. Biomass energy is, for example, the energy generated

### Changes in CO<sub>2</sub> emissions (per 350ml can)



**"Every day we challenge ourselves to introduce new technologies. The environmental technologies we have established at the Yokohama Brewery will be rolled out to every Kirin brewery".**

#### Osamu Ebihara

Manager, Yokohama Plant Division  
Kirin Engineering Co., Ltd.



**"The heat generation from biogas and city gas are different, thus tending to make the engine operation unstable. Developing a technology enabling stable operation was the key."**

#### Takeo Kitamura

Yokohama Plant Division Engineering Officer  
(Presently Toride Plant Division Engineering Officer)  
Kirin Engineering Co., Ltd.

when microbes break down organic matter. This type of energy reportedly has less impact on the environment than fossil fuels do.

The Kirin Group is extracting biogas, the principle ingredient of which is methane, from our brewery wastewater and using it as fuel. We have been using biogas to fuel our boilers in the Yokohama Brewery for some time now, and in 2004 we introduced new cogeneration equipment.

"With this system we use 40% of the energy held in biogas for generating electricity, and a residual 40% is used as exhaust heat," says technical manager Takeo Kitamura. This is ideal for breweries, because they require many heat-intensive processes for preparation, for brewing and so on.

"With the introduction of these facilities we have achieved approximately a 5% reduction in CO<sub>2</sub> emissions for the brewery as a whole. The source of the fuel is wastewater, so a cost reduction effect can also be expected" says the plant manager, Osamu Ebihara. The cost savings are approximately 50 million yen (approximately 400,000 U.S. dollars) a year. This amounts to about 5% of the brewery's annual energy expenses, and it is predicted that the capital expenditure will be recovered in around six years.

## The three pillars of CO<sub>2</sub> reduction

The year 2008 is the beginning of the First Commitment Period for greenhouse gas reduction targets under the Kyoto Protocol. Japan has committed to a reduction of 6% of 1990 emissions. Kirin Brewery is aiming at a 25% reduction beyond the Kyoto Protocol target and has implemented various CO<sub>2</sub> reduction strategies. At present, we are beefing up three core initiatives to enable us to achieve our target ahead of time, by 2007.

The first initiative is the "promotion of energy conservation." We have already achieved our FY 2010 target for minimizing the units of heat used in manufacturing processes. We are also making process changes for effective utilization, without using excess heat and water. The plan additionally includes streamlining production line for the washing and sterilization processes. We have also been making efforts to conserve energy in our treatment of wastewater.

The second initiative addresses switching from fuel oil to natural gas, which emits less CO<sub>2</sub>. We have completed this change in four of our 11 breweries, and we have accelerated the pace of the initiative, and now





**"When considering environmental matters, economic aspects are also important, but we want to implement initiatives based on a coherent philosophy."**

#### **Minoru Kashiwabara**

Technology & Engineering Director,  
Production Division  
Kirin Brewery Company, Limited

plan to complete conversion at five breweries during FY 2006.

The third of these initiatives involves the use of biogas. The biogas recovered from the processing of anaerobic wastewater is used not only as boiler fuel but also in effective cogeneration systems. By achieving our targets early, the Kirin Group will go some way toward fulfilling its social responsibility toward the environment.

### **Development of a system that will become the model for all companies**

To achieve our rigorous self-imposed targets, the Kirin Group has been seriously examining CO<sub>2</sub> reduction plans since 2002, when our key policy priority of switching from fuel oil to natural gas was established. However, we confront a heavy cost burden.

"The prevention of global warming is a challenge for all humankind. We are a corporation so we cannot completely ignore costs, but we believe that reducing CO<sub>2</sub> emissions is an obligation of any company doing business in the 21st century. For this reason, we have made a firm decision to invest in ways of reducing emissions," says Technology & Engineering Director Minoru Kashiwabara, looking back on the beginning of the project. After analysis, we adopted a system whereby ESCOs (Energy Service Companies) establish and maintain the facilities and the energy user pays a fee. It is less expensive than purchasing electricity from an electric power company and the generation facilities are on-site so exhaust heat can be utilized without being lost. It is also possible to sell surplus power to corporations in the group.

In 2006, excluding the two of our 11 countrywide sites that do not have gas pipes already in place, 9 breweries will have begun to commission this service. Investment by the enterprise will rise to as much as 5 to 6 billion yen, but it is expected that this will be recovered by 15 years of sales. This is the largest ESCO initiative in the country. Trial calculations indicated that a reduction in total energy expenses of 10% would be possible.

"In the era to come, I strongly think that corporations which cannot fulfill their responsibilities to the environment will not survive. Taking bold challenges on a new path is important," says Kashiwabara, after participating in the introduction of this scheme.





Section **1**

# For fair and transparent management

Corporate Governance.....	15
Risk Management / Compliance.....	17

# Corporate Governance

To earn trust from both within and outside the company, and to conduct fair and efficient management, it is necessary to enhance corporate governance. The Kirin Group is putting this idea into practice throughout the Group.

## Corporate governance philosophy

Kirin Brewery changed its corporate governance system in April 2003. The main objectives were to enhance and speed up decision making, reduce response time and improve the transparency and soundness of management.

The main changes include downsizing the board of directors, introducing an executive officer system, establishing the Compensation Advisory Committee, the Appointment Advisory Committee, as well as an Advisory Board. In addition, we have re-organized all existing internal bodies.

The Advisory Board consists of four external experts, providing multifaceted, objective advice and proposals on management issues facing the corporation twice a year, promoting to develop a more transparent, socially aware management system. In FY 2004 we received important advice concerning the direction of management based on the themes of company-wide risk management initiatives and community activities.

## Compensation of board members

The compensation of board members is deliberated by the Compensation Advisory Committee, which includes members who are external directors. The compensation system and actual compensation amounts are discussed, and then the final votes are made at a board meeting. In this process of deliberation on director compensation by the Compensation Advisory Committee, transparency is assured, and decisions are made as to suitable compensation for directors.

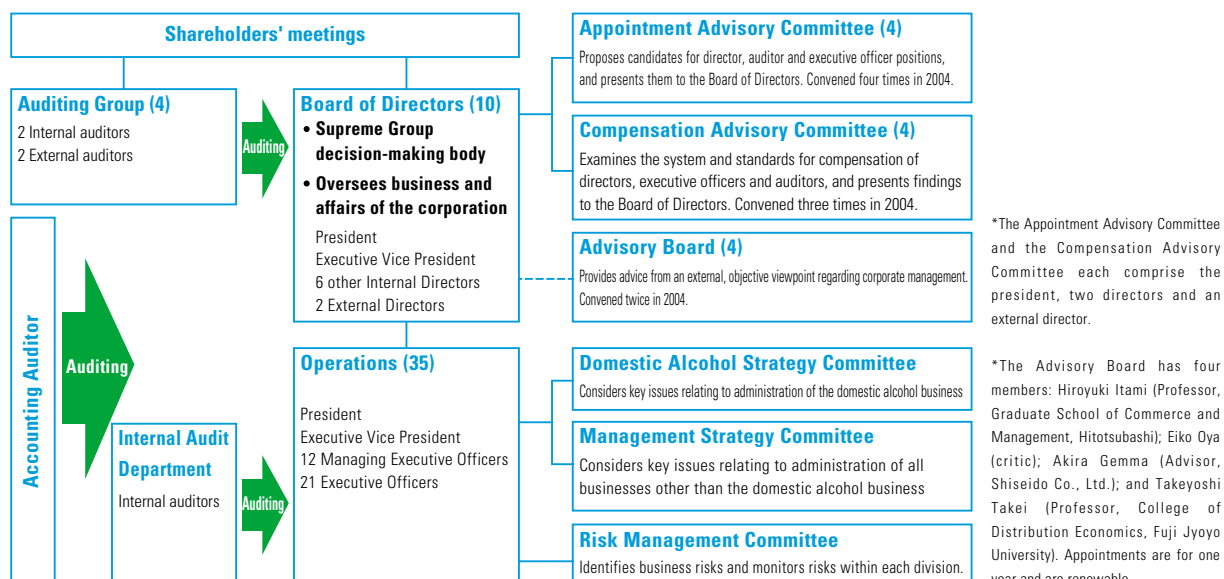
### Total amount of director remuneration

	Board member (director)	Auditors
Base compensation	340 (14 persons)	64 (5 persons)
Bonuses	119 (10 persons)	11 (4 persons)
Retirement allowance	913	29

(Units: million yen)

\* The above indicates the number of individuals who are paid. Number enrolled at the end of the period under review: 10 directors, 4 auditors.

## Corporate governance structure



## The Kirin Group CSR Management system

At the Kirin Group we have organized the Kirin Group CSR Committee to implement CSR management group-wide.

The primary objective of the committee is to reflect the voices of the stakeholders in CSR management strategy, to implement it, undertake self-evaluation, and to then report to stakeholders and continue this cycle.

In concrete terms, the committee builds a Kirin Group CSR model, makes decisions on important CSR management matters in accordance with the model, and rolls this out as a group-wide operational strategy. In each division of Kirin Brewery the PDCA (Plan, Do, Check, Action) cycle is implemented using balanced scorecard procedures, which correspond to the business management system. At the employee level, the PDCA cycle is implemented in accordance with the "Management by Objectives and Self-control" (MBO-S) system.

At the Kirin Group, continual improvement based on the PDCA cycle is practiced not only in the management system for environmental and quality assurance but also in CSR and the risk management system that supports it.

## Communication with stakeholders

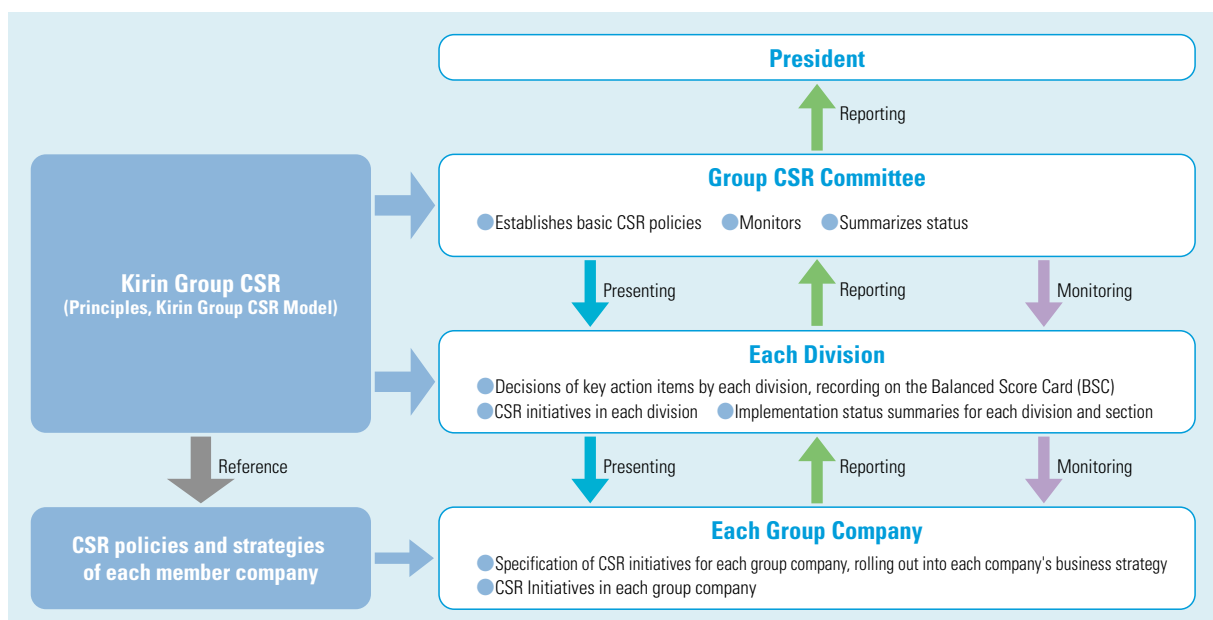
The Kirin Group acknowledges the importance of the opinions of its internal and external stakeholders in order to manage in a way that balances economic, social and environmental aspects. In March 2005 we conducted a head office organizational change and established the CSR & Corporate Communications Division.

We have also established the Customer Center within the CSR & Corporate Communications Division as an information desk where customers can communicate directly with us. Here, inquiries and comments regarding products have been responded to promptly. We collate opinions regarding product development, production, sales and the like and report these to top-level management on a regular basis, as well as giving feedback to each operational division.

Next we have established the "Open Office Hour" as a forum for employees to communicate closely with top-level management. Using this once-a-month opportunity, a broad range of communication is possible, including employees exchanging ideas on detailed operations with the President, and making proposals to management.

The Advisory Board is also available twice a year to seek the opinions of external experts. In the fall of FY 2005 we are planning to hold a stakeholder meeting.

### The Kirin Group CSR Management System



# Risk Management / Compliance

At the Kirin Group, in an attempt to strengthen internal controls, resolute implementation of compliance-based risk management is the foundation for our CSR management.



## Internal control system

At Kirin Brewery we have established the Internal Audit Department, which undertakes audits based on yearly audit plans to determine whether execution of duties is conducted appropriately and efficiently. Also, we have taken the opportunity of the organizational reform of March 2005 to revise internal controls from a CSR perspective. We plan to continue to strengthen this system.

The Internal Audit Department undertakes activities to confirm that internal controls are designed and operated properly (that is, they are in conformity with the applicable laws and regulations, and company rules, they work to preserve company assets and they assure that operations are effective and efficient) from the perspective of internal independence and objectivity.

In practice, this means monitoring risk management and undertaking risk approach auditing, whereby auditing resources are deployed with priority for the highest-risk areas. By doing this, we aim to give substance to "management auditing". This includes PDCA (Plan, Do, Check, Act) promotion of execution of duties and stakeholder satisfaction, in addition to the operational and accounting auditing that we have carried out in the past.

For our risk approach audit in 2004, we audited food safety and

strategic decision-making information risk. In 2005 we are planning an audit of compliance and information security.

Also since 2004, we have been strengthening group management by supporting auditing activities in group companies, undertaking information exchange and training activities on group auditing policy and duties, and improving the group-wide auditing function, including cooperation with Kirin Brewery auditors and accounting auditors.



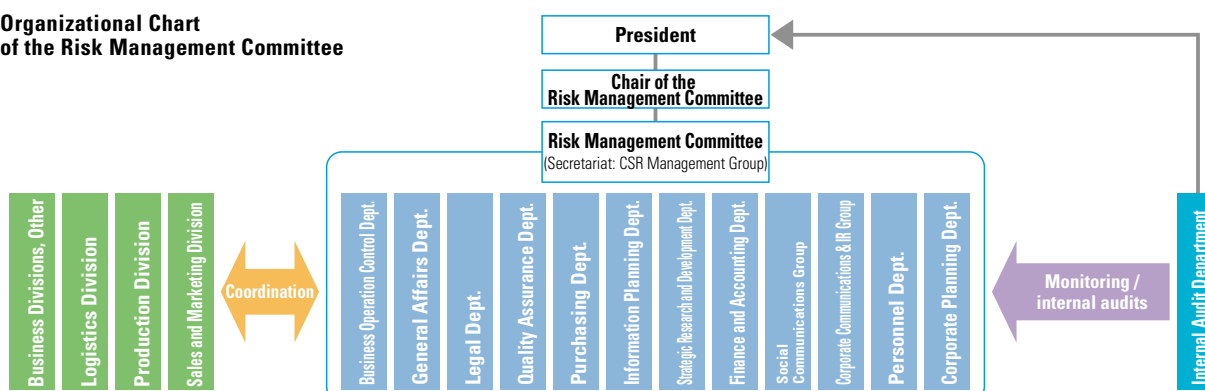
## Risk management

At Kirin Brewery we take risk to mean "the influence of uncertainty on business and management activities," and since June 2003 we have been strengthening our risk management system.

In concrete terms, we have reviewed our approach and now consider all Kirin Brewery divisions and locations to be our first line of defense against risk, the Risk Management Committee is the second, and the Internal Audit Department is the third. We have thus built a risk management system in which all employees participate.

At Kirin Brewery we have introduced a risk model composed of

### Organizational Chart of the Risk Management Committee



three types of risk. These are external environmental risk, operational risk, and strategic decision-making information risk.

Every division and office is identifying assumed risks in accordance with the classifications of this risk model. For each of these risks, we are evaluating the size of the risk's influence, the probability of the risk arising, and the priority level to be given to dealing with the risk. The method of dealing with these risks is included in the operating plan of each division and work site, where efforts are being made to prevent and reduce the risks.

We have also established the Risk Management Committee as the organizational body responsible for ensuring the implementation of the risk management system. The committee is also making efforts towards the introduction of the risk management system into each company in the Kirin Group.



## Compliance

At the Kirin Group, compliance is recognized as the basis for CSR. We have several initiatives in place to enhance compliance.

Kirin Brewery revised its Code of Conduct in 2003. The Code of Conduct, along with the Management Principles, is based on the Management Philosophy and is the cornerstone for the

conduct of every director and employee when carrying out the Kirin Group companies' business.

The Key revisions are:

- Enhancement of customer satisfaction has been brought to the forefront, in order to make it clear that we believe in putting the customer first.
- Revising the articles of the code and their wording from the perspectives of enhancing compliance and of the changing social environment in which the Kirin Group finds itself.

In conjunction with the Code of Conduct, Kirin Brewery has established Compliance Guidelines. These guidelines call for strict adherence to the laws, and cite specific conduct that is desirable legally and ethically, as well as unacceptable conduct, within the framework of the Code of Conduct.

At Kirin Brewery, compliance is at the core of overall risk management, and the guidelines are positioned as a critical risk management item that particularly ties to Kirin Brewery's Corporate Philosophy, Corporate Guidelines and Code of Conduct.

We have compiled the relationships among these four, and their content, into a handbook named "The RULE." This book is meant to help every employee become familiar with these principles and guidelines, understand them and be able to act in accordance with them. We also distribute a handy card that lists "conduct self-check" items.

### Relative position of Compliance Guidelines



"The RULE" handbook



Self-check card



## Compliance training

At the Kirin Group, we believe that raising the compliance consciousness and practice of every employee is highly important, and we therefore aim to reinforce compliance training.

We developed a compliance training system in 2004. We have prepared two types of training. One is group training based on case studies. The other is e-learning using our intranet. In 2005, all employees will be able to take advantage of these courses. With this training, employees learn by experience the key basics of compliance such as "Compliance is everyone's business," "Don't report just the good, report the bad, quickly and accurately" and "Never tell a lie."

Our honesty and transparent business operations that promote business ethics, compliance with values and internal control have been recognized. We have been awarded the Corporation Division Prize in the third "Seijitsu-na-Kigyo ("Firms of Integrity") Awards" (sponsored by Sankei Shimbun Co. and KFi Co. Ltd.).



Group discussion of a case study at a compliance training session

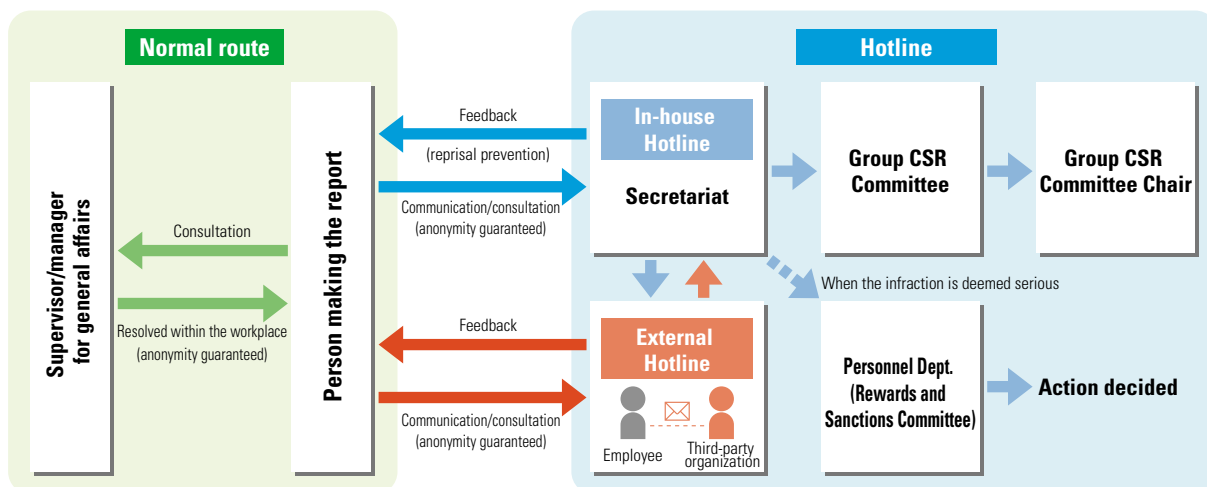


Corporation Division Prize Certificate from the third "Seijitsu-na-Kigyo Awards"

## In-house hotline

Kirin Brewery has hotlines in place for reporting issues related to compliance. One hotline is staffed from within the company, while the external hotline is staffed by an independent third party. The external hotline is entrusted to an organization that specializes in this kind of work. It is aimed at making employees more comfortable with reporting compliance-related issues. The hotlines were used 16 times in fiscal 2004.

### Hotline information and action flow





Section **2**

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## For Sound Operations

Financial Highlights for the Kirin Group .....	21
Economic Relations with Stakeholders.....	22

# Financial Highlights for the Kirin Group

Ensuring a consistent profit is essential for corporate survival. The major source of the Kirin Group's income is the Japanese alcoholic beverage market. Other growth markets are foreign alcohol operations, soft drinks and pharmaceuticals.

## 2004 financial performance

The Kirin Group has been striving to continue to improve profitability, based on the "2004 - 2006 Kirin Group Medium-Term Management Plan," which was initiated in the current consolidated accounting period. At the same time, we have been promoting management reform aimed at enhancing Kirin brand value, and at the transformation of Kirin into a corporate group with a strong development function.

In this consolidated accounting year, strong sales of alcoholic beverages and satisfactory sales of other beverages produced a consolidated sales of 1.65 trillion yen (up 3.6% from the previous period). Due to the revision of the earnings structure and other factors, consolidated operating income was 109 billion yen (up 7.7% from the previous period), consolidated ordinary income was 107 billion yen (up 12.6% from the previous period), and consolidated net income was 49 billion yen (up 51.6% from the previous period).

### 2004 financial performance

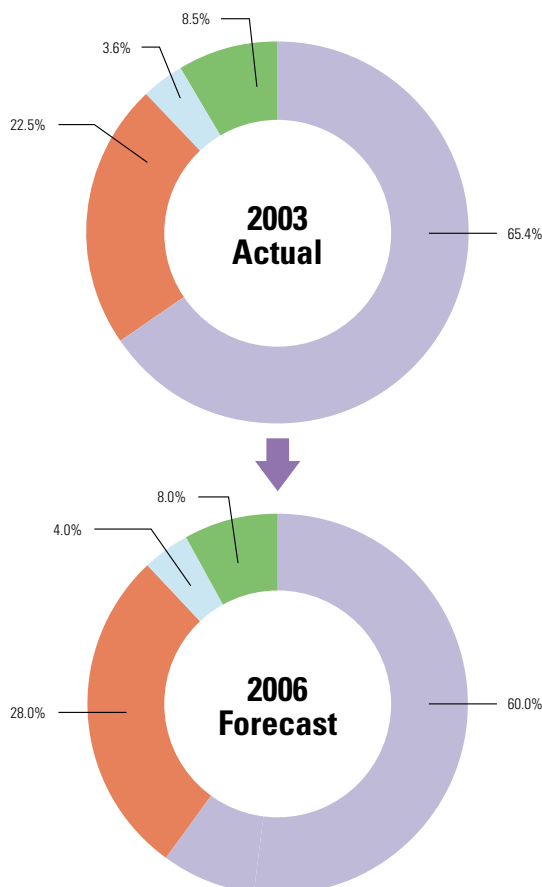
(Units: 100 million yen)

	Sales	Operating Income	Ordinary Income	Net Income
Consolidated	16,548 (3.6%)	1,093 (7.7%)	1,065 (12.6%)	490 (51.6%)
Kirin Brewery	9,569 (down 0.5%)	529 (down 5.3)	667 (down 7.1%)	404 (16.0%)

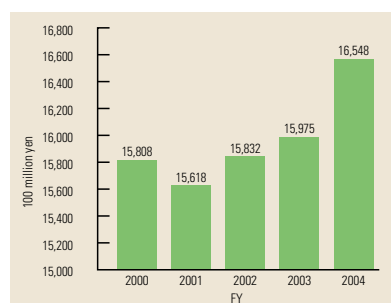
\* Figures in brackets are percentage growth from the previous period.

### Breakdown of sales 2003 (actual results) vs. 2006 (predicted)

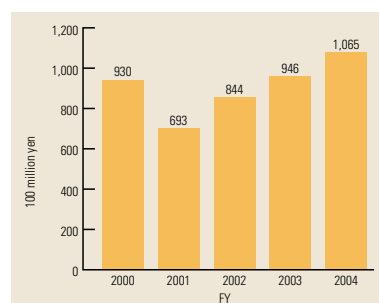
Alcoholic beverages Soft drinks Pharmaceuticals Others



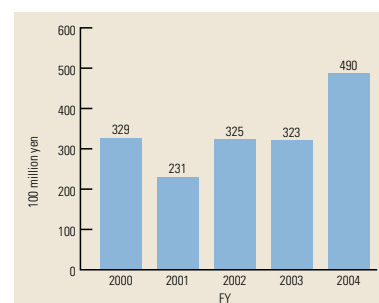
### Sales (consolidated)



### Ordinary Income (consolidated)



### Net Income (consolidated)



# Economic Relations with Stakeholders

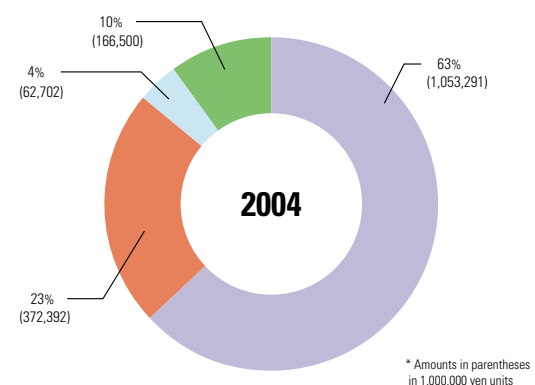
By changing our way of evaluating operating results away from the perspective of profit calculations to the creation and distribution of economic value added, the Kirin Group is working to understand the economic influence we have on our stakeholders.

## Economic value added in the Kirin Group

Economic value added by the Kirin Group, whose main operations are the manufacturing and marketing of alcoholic beverages, is created from the process of procuring raw ingredients, manufacturing, and delivery of the resulting products and services to customers. The proportion of sales by product or service (i.e., by business area), and by country and region is as follows:

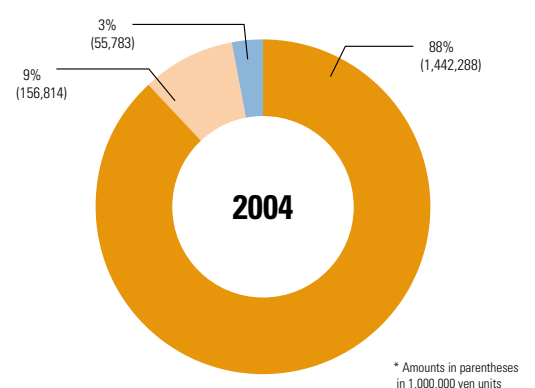
### Sales by product and service (consolidated)

Alcoholic beverages Soft drinks Pharmaceuticals Others



### Sales by region (consolidated)

Japan Asia & Oceania Others



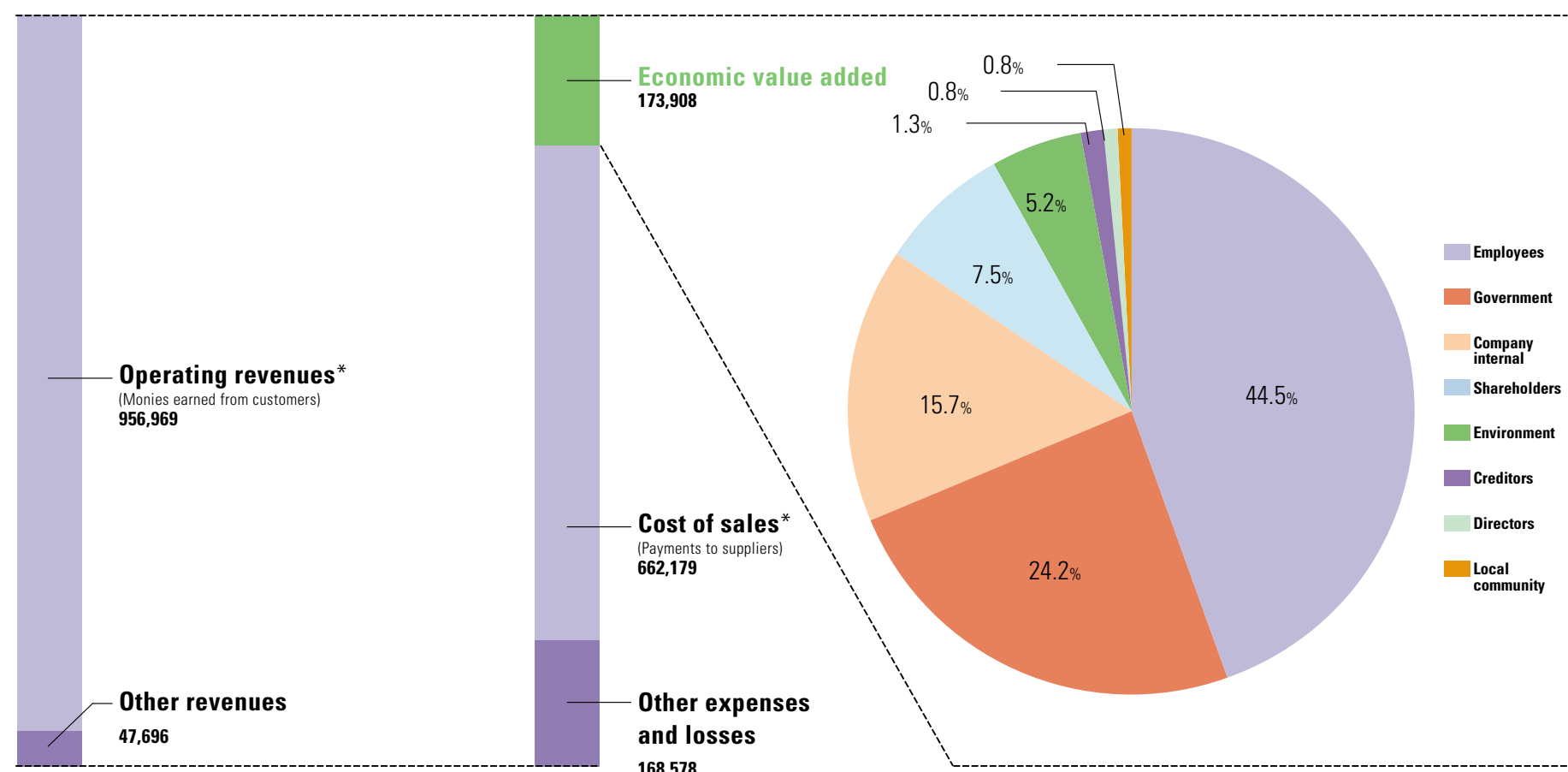
## Allocation of economic value added by Kirin Brewery (non-consolidated)

We first endeavored to understand the distribution of added economic value to stakeholders by Kirin Brewery (non-consolidated) in the 2005 report.

Most of Kirin Brewery's profit is derived from the sale of alcoholic beverages to the customer stakeholder group. The addition of non-operating profit, special profit and other profit

## FY 2004

Units: million yen



items to this gives us the total profit.

From this total profit, payments to suppliers (i.e., cost of goods sold), and other expenses and losses, including sales expenses and general administrative expenses, are subtracted to provide the amount of economic value added by Kirin Brewery. The added economic value for the 2004 accounting year was about 174 billion yen.

Allocation of economic value added is calculated by summing the expenses for each stakeholder, from employees through to government, shareholders, creditors, directors, local communities, etc., and this sum is the allocated amount.

In this way, by presenting our economic relationships with our stakeholders in monetary terms, we can understand the state of present distribution, and by continuing this process, we can bring about well-balanced stakeholder distribution.

In the future also we will promote communication with internal and external stakeholders. We will do this by finding more easily understandable methods of information disclosure with regard to the distribution of added economic value.

## Distribution of economic value added to stakeholders

Distribution	Amount (million yen)	Main items
Employees	77,372	Personnel costs
Government	42,102	Corporate taxes and public dues
Company internal	27,315	Increase (decrease) in balance brought forward
Shareholders	13,042	Dividends
Environment	9,094	Environmental protection costs
Creditors	2,181	Interest paid
Directors	1,476	Directors' compensation and bonuses Directors' retirement bonuses
Local communities	1,326	Charitable contributions
<b>Total</b>	<b>173,908</b>	

\* Refer to page 43 for the costs of environmental protection.



Section

# 3

## Coexistence with society

Making the Most of Customer Opinion.....	25
Commitment to Quality .....	26
Our Responsibilities as a Producer of Alcoholic Beverages .....	28
Relations with Suppliers .....	30
A Lively Working Environment .....	31
Advancing Side by Side with the Community .....	34



# Making the Most of Customer Opinion

The Kirin Group endeavors to make use of our customers' comments in our corporate activities, and to create a customer focus that is one step more advanced by sharing ownership of customer comments across the company. In this way we can provide safe, reliable products, services and information that are both trusted and enjoyed by our customers.



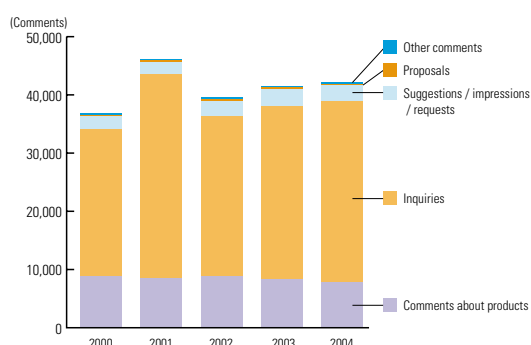
## Communication with our customers

### Customer comments

In 2004 the Kirin Group received approximately 42,000 comments (up 1% on the previous period), and we have strengthened communications with various customers. Among the comments, about 75% were questions regarding products and campaigns, and while campaign-related comments increased, questions regarding calories and so on decreased due to our expanded displays of nutritional information of products.

Comments about products continued the downward trend from 2003 and decreased by 7% from the previous year. Comments on faulty containers increased.

### Number of comments (Kirin Brewery)



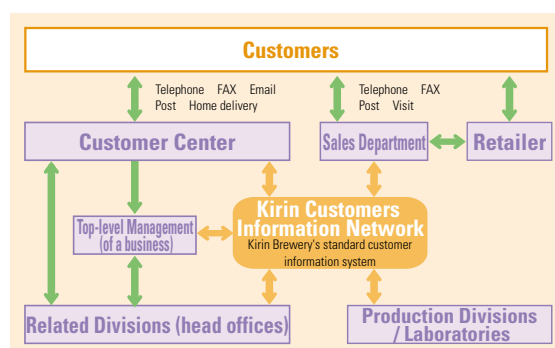
## Customer focus across the company

At Kirin Brewery, we have included a section on our web site called "Our promises to customers." In it we establish our "Basic Policy," the "Guiding Principles for Conduct," and the "Company Rules," and we promise customers a fair, impartial and rapid response to all issues in good faith. Customer

comments are examined responsibly, and the results are reported to recover the trust of the customers, and thus create products that customers will feel reassured and confident about drinking regularly.

We are also striving to lift our customer focus to a higher level by disclosing all customer comments within the company. In this way, all employees from management down have a common perception of the issues.

### The customer response flow



### Responses to customer comments

In 2004 we posted nutritional information on our web site in response to the large number of calorie-related questions we received. We have also gradually introduced the display of this information on to the cans and to the cardboard of the six-packs.



The nutritional information display is now easier to read.

# Commitment to Quality

The Kirin Group has established a uniform quality assurance system so that we can provide products that give customers peace of mind. We are working towards quality assurance from every angle, with the core of the effort being each individual involved in the brewing process.



## Quality management system

In 1996 the Kirin Group led the industry when our Hokuriku Brewery acquired ISO 9000s certification. We have successively built on this to the point where now all our breweries, head office, branch offices, and our logistics department have this certification. In 2000 we combined the registration of all offices into one company-wide quality assurance management system.

From 2002 we used “quality management evaluation criteria(QME)” as a common group-wide standard and began evaluation of the current status of each company. We have established 29 evaluation criteria based on the Kirin Group’s quality policy, including ideas from ISO 9001 and the HACCP\* system. The Group shares each company’s management case studies. The Kirin Brewery Quality Assurance Department visits each group company several times a year and verifies their circumstances, issues and the state of their reforms based on these evaluation criteria.

### Kirin Group’s Quality Policy

**Above all else, we will take the customers’ viewpoint and strive to provide satisfying and reliable products and services.**

#### 1 Enhancing Customer Satisfaction —Priority on Customers

We place top priority on valuing customers’ opinions and strive to respond with customers’ interests at heart. Recognizing that communication with our customers represents the source from which to improve quality (customer satisfaction), we will value our contact with customers and endeavor to develop products that generate higher satisfaction and make minute improvements.

#### 2 Providing Safe and Reliable Products —Priority on Quality

We will strive to win trust by providing safe and reliable products and services through all our activities from the procurement of raw materials and supplies, development and production, to inspection, distribution and sales. To that end, each one of us in our respective roles will endeavor to raise the reliability of our quality guarantee.

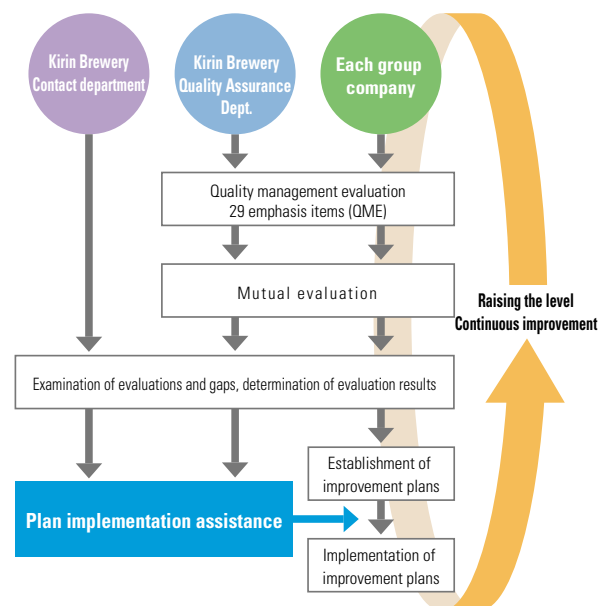
In 2003 we evaluated the safety and labeling of raw ingredients and production contracting management (management of production at outside companies: revised 2004) and prepared guidelines.

We are also holding regular conferences twice a year and encouraging face-to-face interaction to promote communication within the group. When any group company builds a quality management system or acquires ISO certification, Kirin Brewery’s Quality Assurance Department supports their efforts.

\* HACCP (Hazard Analysis and Critical Control Point)

A system of food safety management by hazard analysis and critical control points

### Quality Management Chart for each company



### Companies that have received improvement support under the Kirin Group quality management system

12 companies: Kirin Distillery Co., Ltd., Eishogen Co., Ltd., Kirin Beverage Corporation, Koivai Dairy Products Co., Ltd., Kirin-Wellfoods Corporation, Takeda-Kirin Foods Corporation, Cosmo Foods Co., Ltd., Japan Potato Corp., Nagano Tomato Co., Ltd., Yonekyu Corp., Kirin International Trading Inc. and Kirin Brewery Company, Limited.



## Maintaining high, uniform quality levels throughout the country

### Standards for quality management

We have always had manuals for inspecting factors which have a substantial effect on quality, such as ingredients, their combining and brewing methods, but now we have all kinds of acceptance inspection manuals for packaging and materials also, as our basis for ensuring uniform quality.

### Ingredient specifications and strict approach to quality

Most of the main ingredients of beer, such as malt and hops, rely on imports. At Kirin Brewery, in addition to our strict stipulations for the quality specifications of imported ingredients, we scrupulously conduct acceptance inspections to ensure our suppliers are providing ingredients that live up to the Kirin quality requirements. Also, in order to ensure that we obtain the highest quality ingredients, we choose our imports from among several regions.



## Food safety and reliability

With regard to our ingredient safety assurance system, Kirin has strengthened its assessment system for the introduction of new ingredients so that our customers can rest assured. As one of these initiatives, we established the Quality Assurance Center at the Research Laboratories for Brewing in January 2005. There we conduct analyses and studies relating to customer comments and safety.

Newly adopted ingredients are also analyzed by suppliers or analyzed in-house for genetically modified crops, residues of agricultural chemicals, endocrine-disrupting chemicals, substances derived from packaging materials, etc., in addition to the legal compliance issues which have always been addressed.

We also regularly audit our suppliers, and particularly with regard to newly adopted ingredients, we make it a basic rule to audit production facilities before and during use.



## Perfecting draft beer for the food service industry

Kirin Brewery strives to deliver truly delicious draft beer straight to our customers. For this reason we meticulously support quality management systems for draft beer in restaurants and bars, in accordance with the system we have developed.

### High quality keg draft beer

Country-wide about 800 support staff travel around visiting every restaurant and bar that serves Kirin draft beers. They help staff with thorough quality management, teach them about the importance of detailed service such as the proper handling of beer mugs and on other important issues.

### Kirin Draft Masters School

A draft beer school aimed at restaurants for nurturing draft beer masters at the Kirin Draft Masters School. This is where we convey the knowledge, techniques, and quality management necessary for providing delicious draft beer to our customers at restaurants and bars.

The Kirin Draft Masters School was the first program of its kind in the industry, established in our Yokohama Brewery in 1993. Following that, permanent schools were established throughout the country and about 190,000 restaurant-related people have received training.

After the courses, students are active day to day in their restaurants as draft masters.



A course at the Kirin Draft Masters School



## Research and development for safe, quality beer

To ensure well-timed, precise production of quality beer, we are continuing various R&D projects with the cooperation of the product development research center, Research Laboratories for Brewing, and the Research Laboratories for Packaging.

# Our Responsibilities for Alcohol-Related Problems

Kirin will continue to conduct educational activities for the promotion of responsible drinking and the prevention of underage drinking, drunk driving, and binge drinking, as part of our social responsibility as a corporation that manufactures and markets alcoholic beverages.



## Basic policy for dealing with problems relating to alcohol

As part of our corporate social responsibility, and to proactively further education for prevention of problems relating to alcohol, we established the Kirin Group Basic Policy for Alcohol-Related Problems in May 2004.

### Kirin Group

#### "Basic Policy for Alcohol-Related Problems"

- For prevention of problems relating to alcohol and for education about responsible drinking -

#### [Basic Policy]

Kirin Group contributes to the health, enjoyment, and comfort of people around the world through activities to educate people about responsible drinking, and to prevent the various problems associated with inappropriate drinking.

#### [Guiding Principles for Conduct]

1. We acknowledge that moderate drinking of appropriate amounts of alcohol (responsible drinking) has benefits, and broadens the scope of human communication, and we will endeavor to expand people's understanding of the correct way to drink alcoholic beverages.
2. We acknowledge the intoxicating effect of alcoholic beverages, and the dependency resulting from excessive drinking, and we will continue educational activities to teach correct knowledge and prevent the various problems associated with inappropriate drinking.
  - Prevention of underage drinking
  - Prevention of driving under the influence of alcohol
  - Prevention of binge drinking
3. In our marketing activities we will abide by the law, by the Kirin Group's own standards and by industry standards, and work for education about appropriate drinking and the prevention of inappropriate drinking.
4. We will actively support community activities aimed at preventing inappropriate drinking.
5. We have a Moderate Drinking Awareness Month during which the whole company is involved in staff training and self-development.



## Educational activities for responsible drinking and the prevention of drinking problem

While it is said on the one hand that in appropriate amounts alcohol are fine for most drinkers, problems such as underage drinking, drunk driving, binge drinking and alcohol dependency have also been identified. It could be said that the source of this kind of problem drinking is a fundamental lack of correct knowledge regarding alcohol. As one of the social responsibilities of a corporation that manufactures and markets alcoholic beverages, our company will continue to expand educational activities for the promotion of responsible drinking and the prevention of drinking problem.

### Information on our web site

On Kirin Brewery's Japanese-language web site, in a section titled "Enjoying drinking the right way," we have collated everything from general information right through to specialist information about the influence of alcohol on the body and about responsible drinking. Also, in order to prevent underage drinking, we have posted in the education area the basic and applied editions of "Education on Underage Drinking."



<http://www.kirin.co.jp/about/knowledge/index.html>

## CD-ROM "Drinking and Health" (standard version and schools version)

In standard version, aimed at adults, users can choose two options to deepen their understanding of responsible drinking. These are "moderate drinking" and "health checks."

The schools version, aimed at junior and senior high school students, helps students become informed about alcohol and teaches them about the harm of underage drinking and binge drinking. It is also designed to get the students thinking about health issues and drinking alcohol.

These released CD-ROMs have been distributed to about 3,000 junior high schools and 1,600 senior high schools throughout the country, free of charge.



Total number distributed is approximately 170,000 copies.

## Promotion of responsible drinking

We have prepared and have been distributing this educational tool aimed at the general public, educational institutions and medical institutions in an attempt to avoid inappropriate ways of drinking and to spread knowledge of the benefits of responsible drinking. In 2004 we distributed this publication to about 170,000 people who had reached the legal age for drinking, as well as to 23,000 students at 21 universities.

"The ABC of Alcohol and Health" presents in an alphabetized style the characteristics and effects of alcohol and the negative side of using alcohol in an inappropriate manner. We also provide similar information on our web site.



The total number distributed to date is approximately 5.3 million.

<http://www.kirin.co.jp/about/knowledge/abc/>

## Education on underage drinking

Kirin has prepared an educational video for the prevention of underage drinking named "Underage Youth and Alcohol" (1993 edition) aimed at junior and senior high school students, and has distributed it free of charge to most junior and senior high schools in Japan that desire audio/video material (approximately 17,000 schools).

## Internal Moderate Drinking Awareness

Kirin has made April our internal Moderate Drinking Awareness Month, and we undertake educational activities aimed at all employees. In 2005, we held a study session on alcohol and health with Vice-Director Dr. Susumu Higuchi of the Kurihama National Hospital. As a part of the responsibility of a corporation that deals with alcoholic beverages, we believe it is important to deepen each employee's understanding of alcohol-related issues.

## Marketing Ethics Committee

At Kirin Brewery, we comply meticulously with the strict self-imposed regulations regarding advertisements, publicity, and marketing activities that we have undertaken. Compliance with these regulations is audited and checked by the Marketing Ethics Committee, made up of members from the departments concerned.

### Advertisements and displays sensitive to the prevention of drinking among minors and pregnant and nursing women.

#### <Self-imposed regulations>

In each medium of advertising and publicity we consider the target age of the audience and readers and apply our self-imposed regulations.

- (Examples) - We do not use characters or media personalities that appeal particularly to minors (such as Santa Claus or reindeer)  
 - We do not use minors as models in our advertisements  
 - We do not use expressions that would cause people to mistake alcoholic beverages for soft drinks

#### <Warnings on a package>

We take account of the prevention of underage drinking in our advertising phrases and packaging displays. We are also starting to point out on containers that drinking while pregnant or breast-feeding could have a negative impact on the unborn child or nursing infant.



# Relations with Suppliers

In 2004 we established the Kirin Group Procurement Policy, consisting of "Quality Focus," "Open and Fair Dealings," "Legal and Ethical Compliance," and "Mutual Trust and Prosperity," and we opened it on our web site.



## Open and fair procurement

In order to provide products and services that are valuable to our customers, Kirin will undertake open and fair procurement with the support and cooperation of our suppliers.

In accordance with the criteria for evaluation of management fundamentals in the "Kirin Group Procurement Policy", we are endeavoring to take into account our suppliers' state of compliance and their environmental and social responsibility initiatives.

In 2004, we began the annual practice of gathering together our suppliers dealing with promotional tools to discuss our company's ideas regarding safety and environmental and social responsibility, and to ask for their cooperation.

We will continue to promote CSR in our procurement into the future.



## Reducing the impact on the environment with the cooperation of suppliers

With the cooperation of our suppliers, Kirin is undertaking research and development towards achieving better ingredient specifications and quality. We are also making our packaging materials including, bottles, and cans lighter. We are simplifying packing material for transport of raw materials, re-using transportation supplies and specifying packaging materials that are easy to sort before disposal.

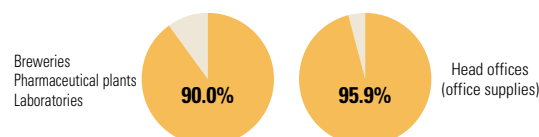
The Venus procurement system, which is mainly aimed at marketing and promotional tools, was adopted in 2002, and uses the Web for competition. It seeks goods based on an understanding of the Green Procurement Guidelines and of the Guidelines for Designing Environmentally Friendly Containers, Packaging and Others.



## We are endeavoring to promote green procurement and to monitor progress

Kirin Brewery is undertaking green procurement for office supplies, printing material, and sanitary goods for head office and all office/clerical departments. Since 2001, we have been using an external system for purchasing office supplies over the Web and maintaining congruence between environmentally friendly products and our green procurement standards. We are presently building a system that promotes green procurement across the company and monitors our progress with regard to this system.

### Progress with green procurement in 2004



### Rate of use of recycled materials

Year	Based on weight (%)		Based on monetary value (%)	
	2003	2004	2003	2004
Bottles, crowns	77	77	27	26
Cans, packages	70	71	77	76
Gifts	81	81	88	89
Transport	34	45	63	62
Total	68	70	72	73

### Green Procurement Basic Policies (Outline)

1. Exercise care to prevent global warming and depletion of the ozone layer
2. Avoid use of heavy metals that damage the environment and human health
3. Exercise care to conserve energy and resources
4. Exercise care to use resources that are finite
5. Select materials that are easy to maintain and repair, and fit for long-term use
6. Select materials designed for repeated use
7. Exercise care in seeking materials to facilitate recycling into resources
8. Ensure that products have a high component of recycled products and materials
9. Select materials that are easy to treat and dispose as waste
10. Select suppliers that actively conserve the environment
11. Actively obtain and utilize information on the environment
12. Select materials that are equivalent in cost to conventional materials



Green Procurement Guidelines distributed to suppliers



# A Lively Working Environment

At the Kirin Group, we build relationships between employees and the company as equal partners, based on the idea of respect for human nature. We endeavor to make a workplace safe and cheerful, and that places importance on a rewarding job, a rewarding life, and richness of experience.



## Providing a workplace where people can work enthusiastically

### Respect for individuals

The essence of our company's attitude towards employees is of respect for humanity. In other words, we respect each of our employees' efforts and personality (humanity) that leads them to grow and develop themselves, and we proactively strive to provide a workplace in which they can apply themselves comfortably and productively.

To date, the employees and the company have been connected through our work in an equal relationship, and the company has specified the details of how it will support the employees' desire to develop (we will respect and support "autonomous individuals") (Refer to the chart below, "Our fundamental attitude towards employees.")

As a result of this, each employee expresses more autonomy and creativity, and is able to work enthusiastically.

### The self-management system

At Kirin Brewery we have adopted Management Based on Objectives and Self-determination (MBO-S) as our fundamental initiative that can link management targets with individuals.

This involves shared ownership of targets between leaders (superiors) and members (subordinates). It is a system of operational management wherein work method improvements and workplace invigoration are pursued through mutually established targets and self-management, and it is thought to give rise to a culture of progressiveness, proactive initiative, and creativity.

### MBO-S management



### Our fundamental stance towards employees

Basic philosophy of human resources  
**"Respect for people"**  
 Respect the individuality (humanity) and effort of each and every employee in their endeavors to grow and develop. Proactively create a place where employees can completely dedicate themselves.

**The employee**

The employee's promise (commitment)

**To be a "self-directed individual"**

**Self-directed career**

To take responsibility for one's own career, to always study and strengthen one's expertise, to become a competitive professional resource

**Independent-minded job design**

To understand the corporate vision, always think about the meaning of one's work and role, act independently with a sense of ownership

**Conducting oneself as a responsible member of society**

To conduct oneself in respect to company and external rules, societal mores and others' needs.

The employee and company are  
**"equal partners"**

**An equal relationship  
 on the job**

**The company**

The company's promise (commitment)

**To respect and support the "self-directed individual"**

**Cultivate professional workers**

To support employees' career development goals. To provide an environment that allows employees to strengthen and demonstrate their expertise. To offer opportunities for study.

**Clarify each individual's mission.**

To make clear the company's objectives and the role that is expected of employees so that their individual work appraisal is always improving.

**Fair treatment**

To fairly appraise and reward employee achievements based on contribution to the company.



## Employee education

So that we can continue to be a business that will be supported by our customers, Kirin emphasizes employee education to develop both the individual and the organization. Among our objectives are corporate growth and improvement of the quality of our business processes. To achieve these objectives, we are positioning "learning and growth" as the basis of all activities.

Specifically, while we place emphasis on educating next leaders, we are expanding opportunities for employees with motivation and ability through a self-development system and by providing opportunities for training outside the company. We also give assistance for planning lifelong education after retirement.

Other educational programs we offer include those on human rights, legal compliance and mental health.

## Fair business operation

At the Kirin Group, our aim is to continue to be a business that is genuinely trusted by our customers and by the society at large.

To make this happen, we have established Operational Guidelines, as well as a Code of Conduct that crystallizes these guidelines. These are meant to serve as the cornerstones for our employees' activities.

In addition, we have established "Compliance Guidelines" specifying corporate conduct that is required under the Code of Conduct, and is, moreover, mandatory in terms of legal and social ethics. In the Compliance Guidelines, our aim is to comply fully with not only the law but also internal and external rules and social norms, and to fulfill our legal responsibilities as well as our ethical responsibilities as demanded by society.

## Supporting employee volunteer

The Kirin Group encourages employee involvement in volunteer activities. In fact, we have established a system to support employee participation and made it a part of our culture. Such involvement helps our employees to be sensitive to social change, to have a wealth of ideas and to be compassionate.



Saga Brewery employees volunteer as torch run supporters at the Special Olympics.

## Volunteer leave

Through this system, we allow employees to dedicate themselves to volunteer activities. Employees with more than three years of service can take a sabbatical of between one

## Status of employment

As of Dec 31, 2004

Proportion in management	Male: 1,702 Female: 28
Average age	41.0
Average length of service	17.2
Average yearly compensation	9,014,527 yen
Number of physically impaired persons	132 (percentage of staff: 1.98%)

## Selected employee benefits

As of Dec 31, 2004

Benefit	Goals, descriptions	Results
Internal recruiting	Employees can rise to the challenge of applying for open positions within the company such as those in overseas operations and new multifaceted operations.	Number of positions offered: 24, Applications: 102, Number accepted: 18
Deferred vacation days	Employees can defer seven days per year, up to 60 days total, of vacation days they were not able to take during the year.	Average number of paid vacation days taken a year: 10.8
Half-day vacations	Employees who are past their trial period may take up to 10 days (20 periods of a half day each) of their annual paid vacation days as half-day vacations.	Individuals at all locations are taking advantage of this.
"Step up" vacations	Regardless of length of service, employees may take 14 days off when they reach 30, 40 and 50 years of age (to participate in a career design seminar).	Taken by most employees to which it applies
Bullet train commute	This shortens commute time and eliminates the need for employees from remote areas to live apart from their families.	Used by 74 people
Childcare leave / family care leave / volunteer leave	Employees may take up to three years leave in each case, depending on their circumstances.	Childcare leave 55 persons (cumulative total 385 persons), family care leave 1 person (cumulative total 27 persons), volunteer leave 0 persons (cumulative total 7 persons)
Flextime / discretionary work system / de facto working system	Employees can enjoy their work and be better contributors because of a creative approach to job particulars and time allotment.	De facto working system for all regional head offices and pharmaceutical divisions, and discretionary work system for laboratories

month and three years, and receive partial pay. We introduced this system in 1992.

### Kirin Collaboration Club

This program supports employee volunteer activities. We started it in January of 2003 in order to maintain our good standing in the community.

Employees earn points by reporting their volunteer activities such as planting trees, collecting empty cans and various social services that they engage in on their own, outside of work. Once a year, they can redeem these points for prizes or donations. The Kirin Collaboration Club encourages ongoing volunteer work with a reward system that is familiar to Japanese citizens, since it is similar to programs meant to encourage physical fitness.

In the last two years, 3,060 employees participated in volunteer work in some form, an average of four times each.



Collaboration Club Points Book

#### Participants in the Kirin Collaboration Club and their collaboration points

	2003	2004
Participants	2,045	2,329
Collaboration points	49,910	69,440

\* Employees collect 10 collaboration points per activity.



Volunteers plant flowers and seeds at a social service facility.

### Volunteer financial support system

This is a program that provides financial help to social service and environmental protection organizations. In this program, employees volunteer to purchase furniture and equipment. We began this program in 1993.



## For a safe work environment

In order to protect our employees' health and to prevent accidents, we avoid overworking in our plants, effectively operate our work safety and health management system, and enforce safety in irregular operations that are not carried out day to day. We have initiatives to deal with new issues such as accident prevention at our partner companies and prevention of traffic accidents in our sales division's commercial fleet.



Employees join in a chorus of safety slogans at a brewery industrial health and safety rally



## Labor safety management systems

The Kirin Group has been operating an Occupational Health and Safety Management System since 2002 at all of our plants, in accordance with Ministry of Health, Labor and Welfare guidelines and international codes. We obtained the international standard OHSAS 18001 certification in 2000 for the Occupational Health and Safety Management System at our Toride Brewery. We are in the process of obtaining Central Industrial Accident Prevention Association standard OSHMS certifications for each of our breweries.

Further, we are taking measures on equipment safety. In addition to our other hazard warning initiatives, we have adopted the Ministry of Health, Labor and Welfare's "Guidelines for Comprehensive Safety Standards of Machinery."



## Personal health management

A dynamic business depends on the good health of its employees. To manage the health of employees, Kirin performs periodic health checkups. Where indicated by the results, we follow up. We promote the reduction of overtime work and deal with mental health issues. For the latter in particular, we take the position that "concern for and attention to employees is essential for a manager." We emphasize tracking the physical and mental health of employees and provide a training course for managers on recognizing and responding quickly to possible problems

# Advancing Side by Side with the Community

As a corporate citizen in coexistence with the community, our management proactively and voluntarily aims to be in harmony with society, and to achieve this we are developing activities in various fields including international contributions, advancement of the culture of beer, support of sports, arts, and social welfare.



## UNU-Kirin Fellowship program

The UNU-Kirin Fellowship is a program we established with United Nations University in 1993 that supports food-related research and development aimed towards independent solutions to the food problems of developing countries. Every year we provide support for five researchers, primarily from Asia, recommended by the university. In this program, the Fellows undertake fundamental research and applied technological research in the field of food science at the National Food Research Institute in Tsukuba City, then they take the knowledge and technology they acquire back to be applied in their respective countries to contribute to their societies. The special merit of this program is that we continue to support the research expenses of these researchers for two years after they return home, so it is a contribution to an exchange between Japan and other Asian nations that goes beyond the academic field. The year 2005 marks the 13th year of the program, and now 58 people from nine countries have received support.



The 2004 completion ceremony for the UNU-Kirin Fellows



## Carrying out research into and promoting the culture of beer to create new value

We are creating new value by pursuing research into “the culture of beer,” which is the fundamental corporate culture of our company.

## The “Five Thousand Years of Beer History” project

This project designed to search for the origin of beer began with our 2001 Ancient Egyptian Beer Research. Through our unprecedented, faithful reconstruction of ancient Egyptian beer and medieval gruit beer (made with a mixture of crushed herbs that gave flavor and aroma to the beer), we are researching the beer of each period throughout history. In the future we will research the roots of beer in Japan, including how Japanese people came to accept this product of Western culture.



Medieval gruit beer revived in 2004

## Brewery tours

At each of our breweries, we are conducting open tours where everyone can learn about the beer production process and about environmental initiatives at breweries. We are also holding events, seminars and exhibitions relating to beer culture, the arts and sports.



A tour guide explains how to pour a beer





## Supporting Japan's national teams

Kirin Brewery has supported Japan's soccer representatives since 1978. Since 1998 Kirin Brewery along with Kirin Beverage have been the official sponsors of the Japanese team. As part of the Kirin World Challenge national soccer team support action plan, we provided special support for the Japanese team playoff matches at the 26th Kirin Cup Soccer and the Kirin Challenge Cup. We are working at several levels throughout the year to increase the range of soccer activities including support for the "JFA Family Futsal Festival with Kirin."

Also, as extra support for the Japanese basketball team, this year is the seventh time we are providing special support for Kirin Cup Basketball. Also, as the official sponsors for the Japanese Olympic Committee, we are supporting the Japanese national team.



Photo supplied by: J. LEAGUE PHOTOS  
Kirin Challenge Cup 2005 match Japan vs. Syria, February 2, 2005



## Supporting art and culture including modern art and dance

Under our banner "Kirin Loves Art," Kirin is providing support for modern art through creative and innovative programs, as well as establishing places where a broader range of customers can easily enjoy art and culture. Through our support for modern art and modern dance, we organize exhibitions such as the Kirin Art Project, conducted by new artists and guest artists working with a single theme. We have also developed the Kirin

Dance Network, which provides opportunities to appreciate the best in modern dance productions throughout the country. We are supporting easily enjoyable art and culture by holding events such as our Kirin New Year Concert, where people can intimately enjoy famous classical music, and exhibitions utilizing the Kirin Brewery sites and related facilities in each region. At Kirin Plaza Osaka we convey information relating to the arts through our multi-themed exhibition series.



Kirin New Year Concert



## Promoting social welfare: independence for the disabled, child rearing and more

The Kirin Welfare Foundation was established in 1981 with a donation from Kirin Brewery, and is the Group's only incorporated foundation. It provides support in areas that public welfare organizations do not easily reach. Its focus is on the four areas: relief for family caregivers in the home, improvement in the self-reliance and welfare of disabled people, sound upbringing of children, and aid for public volunteer activities. In our public invitations in FY 2005 we recruited for the theme of volunteer activities in support of raising children in the community, and we received 380 applications from around the country, and gave aid to 92 organizations.



Presentation ceremony for public aid organizations





Section

# 4

## Protecting the global environment

The Kirin Group's Environmental Philosophy ...	37
Kirin Brewery's EcoBalance .....	38
Targets and Results.....	40
Driving Environmental Management .....	42
Water Initiatives.....	44
Container Initiatives .....	46
Initiatives to Prevent Global Warming.....	50
Resource Recovery Initiatives .....	54
Environmental Communicatio .....	57
Independent Verifications .....	58

# The Kirin Group's Environmental Philosophy

Beer is made by a natural process of fermentation, from nature's bounties such as barley, hops and water. For Kirin Brewery, the natural environment is crucially important and environmental protection is a critical management issue.



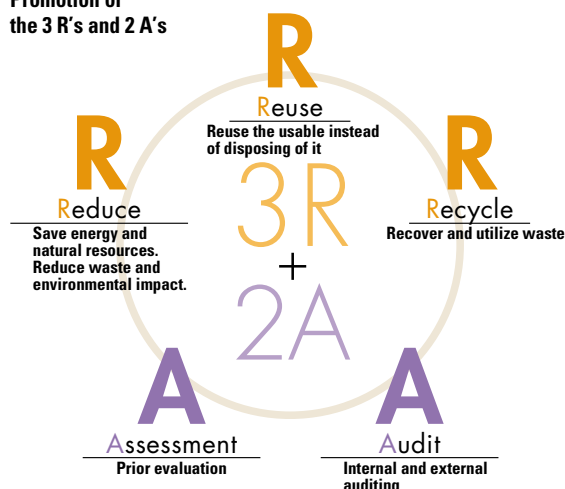
## The Kirin Group environmental principles

With the establishment in July 1991 of our Environmental & Social Affairs Division, we prepared the Kirin Brewery fundamental policy for initiatives on global environmental problems, and have been continuing environmental protection activities ever since then. Pushing forward further with environmental management, in August 1999 we completely revised the fundamental principles and standards of conduct we had used up until then, and established our "Environmental Philosophy" and the "Basic Policy." In the same period we became aware of the concept of a sustainable society, and, including this in our environmental principles, we 'built in' initiatives for environmental protection in every field of our operations.

### Environmental Philosophy

The Kirin Group recognizes the conservation of the global environment as one of its most important tasks. In an effort to establish a sustainable society, we will continuously promote efforts to integrate environmental protection measures into every part of our business activities.

### Promotion of the 3 R's and 2 A's



## The Kirin Group's Basic Environmental Policy

We will promote environmental measures according to the following policy, which is based on the 3 R's (Reduce, Reuse and Recycle) and the 2 'A's (Assessment and Audit).

### The Kirin Group's Basic Environmental Policy

1. Develop products and technologies, and procure materials and equipment with careful consideration for environmental impacts in each stage of the life cycle of production, logistics and marketing, consumption, recycling and reusing, and disposal.
2. Set environmental objectives and goals, and review them regularly to continually improve the quality of our environmental protection with careful consideration for affects on the environment.
3. Establish our self-management standards to further promote environmental protection that complies with environment-related laws, regulations and agreements.
4. Reduce global environmental impact by saving energy and resources, reducing waste and emissions of ozone depleting substance and global warming substances and toxic substance and promoting recycling.
5. Conduct an environmental audit, and disclose information in environmental reports that include our environmental policies and necessary costs for environmental protection.
6. Carry out awareness-raising programs on environment issues in order for all employees to understand environmental policies through in-house environment education and publication. We also work positively on outside environmental activities to improve their awareness on the importance of environmental problems.
7. Support NGOs dealing with recycling and environmental protection and take part in social activities.
8. Pay full attention to environmental protections in our overseas activities.

# Kirin Brewery's EcoBalance

In the process of making beer, Kirin Brewery uses various resources and discharges various substances into the environment. In order to do all we can to minimize the environmental impact of our operations, it is necessary for us to understand the impact made over the product life cycle.



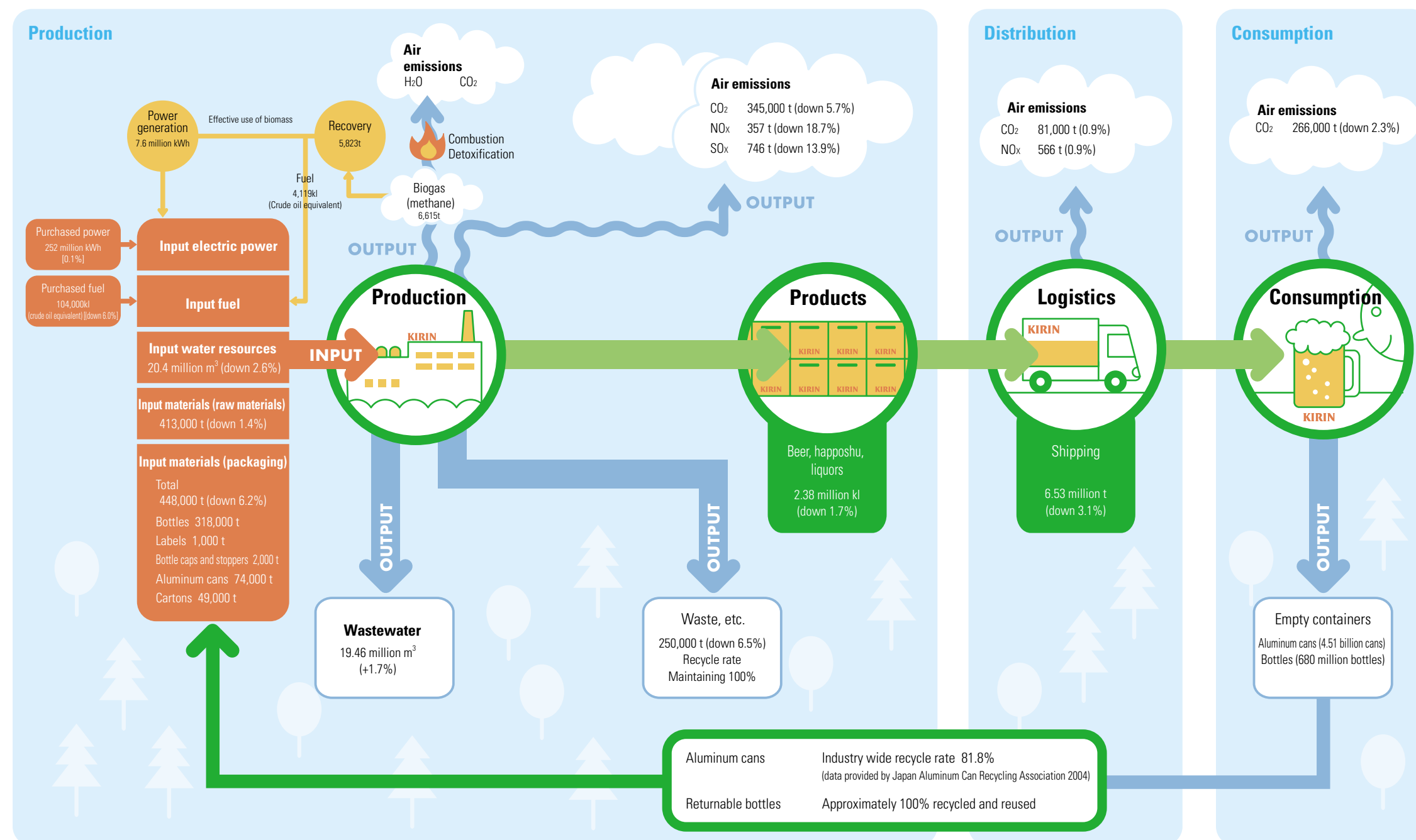
## The making of beer

Do you know how beer is brewed? If you visited a brewery, you might be surprised by the rapid speed at which the production line operates. But no matter how highly automated beer production has become, some things will always remain the same.

The bounties of nature are the raw materials from which beer is made, through the natural process of fermentation. In addition to this natural process, beer goes through the processes of preparation, storage, filtration and packaging before it becomes a product that can be delivered to customers. These processes use energy as the raw materials and the product are heated and cooled, the production line is moved, and washing, sterilization and wastewater treatment are carried out.

Environmental protection measures undertaken by Kirin Brewery in the process of producing beer include using as little energy and water as possible, purifying used water before returning it to nature, using packaging that causes the least environmental impact, and so on.

## Kirin Brewery material flow



## Kirin Brewery's EcoBalance

This chart shows the environmental burden in terms of material flows at each of the stages of beer production, logistics, consumption, and waste. This is a type of EcoBalance and shows the inputs of raw material and the outputs to the environment for each process.

You can see that beer operations impact the environment due to CO<sub>2</sub> emissions from the production and logistics processes, and due to disposal of empty containers after consumption. At Kirin Brewery, we are developing proactive measures particularly around these two processes in order to progress with effective environmental protection activities.

As one method to control the generation of greenhouse gases, we are actively utilizing biomass. Anaerobic processes are utilized in the treatment of wastewater; then methane gas is recovered from the

biomass and used to heat the boilers and in the in-house power generation facilities.

### <Production>

For every 2.38 million kl produced, inputs include 413,000 tons of raw materials, 20.37 million m<sup>3</sup> of water, 252 million kWh of electricity, 104,000 kl of fuel (crude oil equivalent), and 448,000 tons of packaging materials including bottles, labels, caps, aluminum cans and so on.

Discharge to the environment includes 250,000 tons of solid waste, as well as 345,000 tons of CO<sub>2</sub>, 746 tons of sulfur oxides and 357 tons of nitrogen oxides to the atmosphere, and 19.46 million m<sup>3</sup> of treated wastewater.

With the introduction of anaerobic wastewater treatment facilities, fuel purchased was cut by 4,119 kl

(crude oil equivalent), and electricity purchased was cut by 7.6 million kWh.

### <Logistics>

To transport 6.53 million tons of product, we emit 81,000 tons of CO<sub>2</sub> and 566 tons of nitrogen oxides.

### <Consumption>

266,000 tons of CO<sub>2</sub> are emitted due to decomposition of alcohol and so on.















### <Waste>

A total of 680 million empty bottles and 4.51 billion empty cans are disposed of. Of these, almost 100% of beer bottles are collected and reused. Industry-wide, 81.8% of aluminum cans are collected, and 63.7% are recycled.

# Targets and Results

At the Kirin Group we have established a three-year environmental management plan as part of the 2004 medium-term management plan, and each fiscal year we will evaluate our performance and reflect our results in the operational plan for the following year.

## Environmental management plan and results


Area	Main theme	Medium-term management plan (2004 to 2006)	Results for 2004	Assessment	Plan for 2005
Production and operations	Efficient use of water and energy	<b>Accomplishment of per-unit target for FY 2010 which is a 15% improvement compared to 1990</b> • Water: accomplished targets in 2003	• Water use: Total volume down 4%, per unit down 0.8% compared to 2003 (Total volume down 44.7%, per unit down 17.5% compared to 1990) <See page 44>		<b>Accomplishment of per-unit target which is a 1% improvement compared to the previous year</b>
		<b>Accomplishment of per-unit target for FY 2010 which is a 5% improvement compared to 1990</b> • Electricity: plan to accomplish targets in 2006	• Electricity: Total volume down 2.8%, per unit up 0.5% compared to 2003 (Total volume down 29.8%, per unit up 4.7% compared to 1990) <See page 50>		<b>Accomplishment of per-unit target which is a 0.5% improvement compared to 2003</b>
		<b>Accomplishment of per-unit target for FY 2010 which is a 15% improvement compared to 1990</b> • Fuel: plan to accomplish targets in 2004	• Fuel: Total volume down 7.2%, per unit down 4.1% compared to 2003 (Total volume down 47.6%, per unit down 21.9% compared to 1990) *The fuel target for 2004 was accomplished in 2004 as predicted. <See page 50>		<b>Accomplishment of per-unit target which is a 1% improvement compared to the previous year</b>
	By-products and wastes	Maintenance of 100% recycling rate at all breweries and head offices	• Discharge of by-products and wastes, down 6.5% compared to 2003		Maintenance of 100% recycling rate at all breweries and head offices
	Greenhouse gases	<b>Reduction of CO<sub>2</sub> emissions in total and per unit of beer production and distribution</b> • Reduction of CO <sub>2</sub> emissions by more than 25% compared to 1990 level by 2007 (i.e., the original 2010 targets will be achieved three years early) • Actual measures to be introduced include conversion to biogas electricity generation, conversion to gas fuels and gas co-generation. (Since FY 2004 the focus has been on management of CO <sub>2</sub> emissions associated with the use of fuel and purchased electricity.)	• Total amount down 5.7%, per unit amount down 2.6% compared to the previous year (Total volume down 43.4%, per unit down 15.5% compared to 1990) • Introduction of biogas electricity generation facilities (1 brewery, 3 breweries in total) • Implementation of fuel conversion (conversion to gas: 1 brewery in 2004, 4 breweries in total so far) <See page 50>		• Reductions in per-unit emissions of CO <sub>2</sub> in beer production (down 21% compared to 1990) • Fuel conversion (conversion to gas) and gas cogeneration • Introduction of NAS batteries, etc. (production divisions) • Modal shift (logistics divisions)
Management	Environmental management system	Acquiring ISO 14001 certification at the Kirin head offices and the main production sites	• For the Kirin head offices, the scope of application expanded from office management to the planning management division. • Takeda-Kirin Foods Corporation's Takasago Plant acquired certification.		• Expansion of the certified sites at Kirin head offices • Acquiring certification in 4 group company offices
		Acquiring EA21 (EcoAction 21) certification at research centers, sales offices and marketing divisions	• Metropolitan Regional Sales & Marketing Division, Yokohama Arena Co., Ltd., and Kirin Dining Co., Ltd. acquired EA21 certification.		• EA21 certification planned for major Kirin research labs, the Frontier Technologies Research Laboratories, Plant Laboratory, Pharmaceutical Research Laboratory, Pharmaceutical Development Laboratories • 3 sales locations to be certified within the year; Kinki Regional Sales & Marketing Division, Kyushu Regional Sales & Marketing Division and Kirin Beverage Co., Ltd.
		Accreditation of Green Management in logistics and storage divisions (Traffic Ecology and Mobility Foundation)	Introduced in major logistics companies (15 companies in total)		
		Introduction of a simple EMS* at the group head offices and small-scale offices	Introduced in 1 group company		EMS to be implemented for 18 group companies
	Environmental accounting	Establishment of internal management (environmental accounting) in breweries	Collected data at each brewery (total of 11 sites)		Establishment of internal management (environmental accounting) in breweries
	Green procurement	• Green procurement rate for office supplies of at least 80% (by cost) • Accomplished at all Kirin sites and 17 group companies	Results for green procurement rate at Kirin Breweries and research centers: 90.0%; Office supplies for the Head offices: 95.9%, Proportion of materials that are reused: 73%		• Green procurement rate for office supplies of at least 80% (by cost). • Accomplishment at all Kirin sites and 8 group companies.
Environmental communication	Protection of the natural environment	• Protection of the local natural environment • Continuation of tree-planting at sources of water near breweries (11 breweries in 11 years)	• Continuation of Kanagawa Suigen no Mori Project • Tree-planting activities undertaken at sources of water near 2 worksites: Shiga Brewery (eastern part of Lake Biwa), Toride Brewery (foot of Mount Tsukuba) • Brewery vegetation rate: 17.8%		Continuation of tree planting activities at 3 locations: Nagoya Brewery (southern region of the Kiso River), the Hokuriku Brewery (Shiroyama City, Ishikawa Prefecture) and the Chitose Brewery
	Environmental report	• Continued production and issuance each fiscal year • Publication of site reports for all breweries	• 2004 Environmental Report published in June (web version also produced) • Publication of site reports for all breweries		• Changing name to "The Kirin Group CSR Report" and expanding scope and content • Publication of site reports for all breweries
	Environmental publicity	• Production and issuance of environmental publicity materials	• Planned recruitment for Ministry of the Environment's Kodomo Eco Club partnership program "Kankyo no Uta" ("Song of the Environment") • Dispatched environmental educational information via our web site and advertisements using Kirin's environmental mascot, "Ecojiro"		• Production and issuance of environmental publicity materials

### <About our goals and assessments>

As part of our mid-term business plan, we set ourselves a variety of goals to be attained within a three-year period. The degree of progress with regard to these goals is assessed on an annual basis.

The performance indicators upon which we base this annual assessment of our mid-term business plan are detailed to the right.

\*The Kirin Group uses its own proprietary, straightforward environmental management system.

: Excellent progress : Progressing according to plan : Behind plan



## Independent Verification and results for FY 2004

The results of Kirin's environmental protection activities are detailed in the Kirin Group CSR Report 2005; please turn to page 43 to see the results of our environmental accounting based upon the environmental performance indicators listed to the right. This time, the indicators have been applied to two new members of the Kirin Group: Nagano Tomato Co., Ltd. and Kirin Distillery Co., Ltd.

Since 1994, Kirin Brewery has published a corporate environmental report that discloses our environmental information (the content and results of our corporate initiatives). Moreover, since the Environmental Report 1999 edition we have undergone independent reviews by AZSA Sustainability Co., Ltd. Since 2002 independent verifications have been conducted.

The items covered by the verification are our environmental performance indicators (including the relevant environmental performance indicators detailed in pages 38 to 57 of our Environmental Report) listed to the right, in addition to our environmental accounting as disclosed on page 43. With regard to the environmental performance indicators for Nagano Tomato Co., Ltd. and Kirin Distillery Co., Ltd., their activities during FY 2004 shall be subject to the independent verification. Please refer to page 59 of this report for the calculation policy that governs our environmental performance indicators and our environmental accounting; it is important that our stakeholders understand and are aware of our level of transparency.

Please refer to "Independent Verification Report" on page 58 for the results of our independent verification. In addition to these results themselves, our report also details how this verification process is carried out and indicates areas where special attention is referred.

Going forward, in addition to environmental information, we will be looking to disclose non-fiscal information, such as our sustainability indicators, in order to redouble our efforts to communicate with stakeholders and engender a sense of trust among them.

### Date and personnel for verification

Head offices	96 man-days
Nagoya Brewery	5 man-days
Chitose Brewery	5 man-days
Kirin Distillery Co. Ltd.	2 man-days
Total	108 man-days

### Kirin Brewery Company, Limited

Environmental performance indicators		Units	2002	2003	2004
Inputs	Total energy input	TJ	8,114	7,402	7,185
	Breakdown				
	Fuel (crude oil equivalent)	10,000 kl	12.6	11.6	11.0
	Electricity purchased	1,000 MWh	327.9	293.9	297.1
Outputs	Total materials input	10,000 t	104.2	89.6	86.1
	Water resource input	10,000 m³	2,464	2,135	2,078
	Production volume	10,000 kl	258.7	242.2	238.0
	By-products and waste generated	10,000 t	30.3	26.8	25.0
Breakdown	Total water discharge	10,000 m³	2,113	1,941	1,973
	CO <sub>2</sub> emissions	10,000 t	42.9	39.0	37.1
	Fossil fuels	10,000 t	30.7	28.1	26.1
	Electricity purchased	10,000 t	12.2	10.9	11.0
Outputs	CO <sub>2</sub> emissions (logistics)	10,000 t	7.1	8.0	8.1
	Total nitrogen oxide emissions	t	473	449	363
	Total nitrogen oxide emissions (logistics)	t	496	561	566
	Total sulfur oxide emissions	t	1,257	875	752

### Kirin Beverage Corporation

Environmental performance indicators		Units	2002	2003	2004
Inputs	Total energy input	TJ	632	692	642
	Breakdown				
	Fuel (crude oil equivalent)	10,000 kl	0.9	1.0	1.0
	Electricity purchased	1,000,000 kWh	28.3	30.8	27.8
Outputs	Water resource input	10,000 m³	157	165	148
	By-products and waste generated	10,000 t	1.1	1.2	1.2
	Total water discharge	10,000 m³	111	95	92
	CO <sub>2</sub> emissions	10,000 t	3.3	3.6	3.3
Breakdown	Fossil fuels	10,000 t	2.2	2.4	2.3
	Electricity purchased	10,000 t	1.1	1.2	1.0

### Kirin Distillery Co., Ltd.

Environmental performance indicators		Units	2002	2003	2004
Inputs	Total energy input	TJ	282	304	327
	Breakdown				
	Fuel (crude oil equivalent)	10,000 kl	0.5	0.5	0.5
	Electricity purchased	1,000,000 kWh	9.6	11.5	14.6
Outputs	Water resource input	10,000 m³	82	86	94
	By-products and waste generated	10,000 t	0.4	0.3	0.3
	Total water discharge	10,000 m³	27	34	41
	CO <sub>2</sub> emissions	10,000 t	1.7	1.8	1.8
Breakdown	Fossil fuels	10,000 t	1.3	1.3	1.3
	Electricity purchased	10,000 t	0.4	0.4	0.6

### Nagano Tomato Co., Ltd

Environmental performance indicators		Units	2002	2003	2004
Inputs	Total energy input	TJ	390	421	466
	Breakdown				
	Fuel (crude oil equivalent)	10,000 kl	0.5	0.6	0.6
	Electricity purchased	1,000,000 kWh	18.0	19.8	23.0
Outputs	Water resource input	10,000 m³	122	131	157
	By-products and waste generated	10,000 t	0.7	0.7	0.7
	Total water discharge	10,000 m³	59	64	75
	CO <sub>2</sub> emissions	10,000 t	2.2	2.3	2.5
Breakdown	Fossil fuels	10,000 t	1.5	1.6	1.7
	Electricity purchased	10,000 t	0.7	0.7	0.9



# Driving Environmental Management

In order to be a sustainable corporation and contribute to building a sustainable society, the Kirin Group recognizes that it is imperative that we work towards the preservation of the global environment. For us, environmental management means seeking optimal efficiency while maintaining a balance with our fiscal imperatives as a company.



## Structure and advancement of environmental management systems

Across the Kirin Group, we have implemented environmental management systems that best fit each company's particular business content, scale, and so on. As part of our mid-term business plan for 2004, approximately 30 companies across the Kirin Group plan to establish and implement an environmental management system. At the same time, we have plans to expand the systems to our 10 regional sales head offices.

certification. With regard to corporate administration, our Shinkawa Head Office also acquired the certification in 2000. Across the entire Kirin Group, ISO certification continues to grow. The Maizuru Plant of Kirin Beverage Corporation acquired ISO certification in 1999 and currently 12 plants have attained the certification. Moreover, in 2005 we expect Koiwai Dairy Products' Tokyo Plant and Nagano Tomato Co., Ltd. to receive the certification.



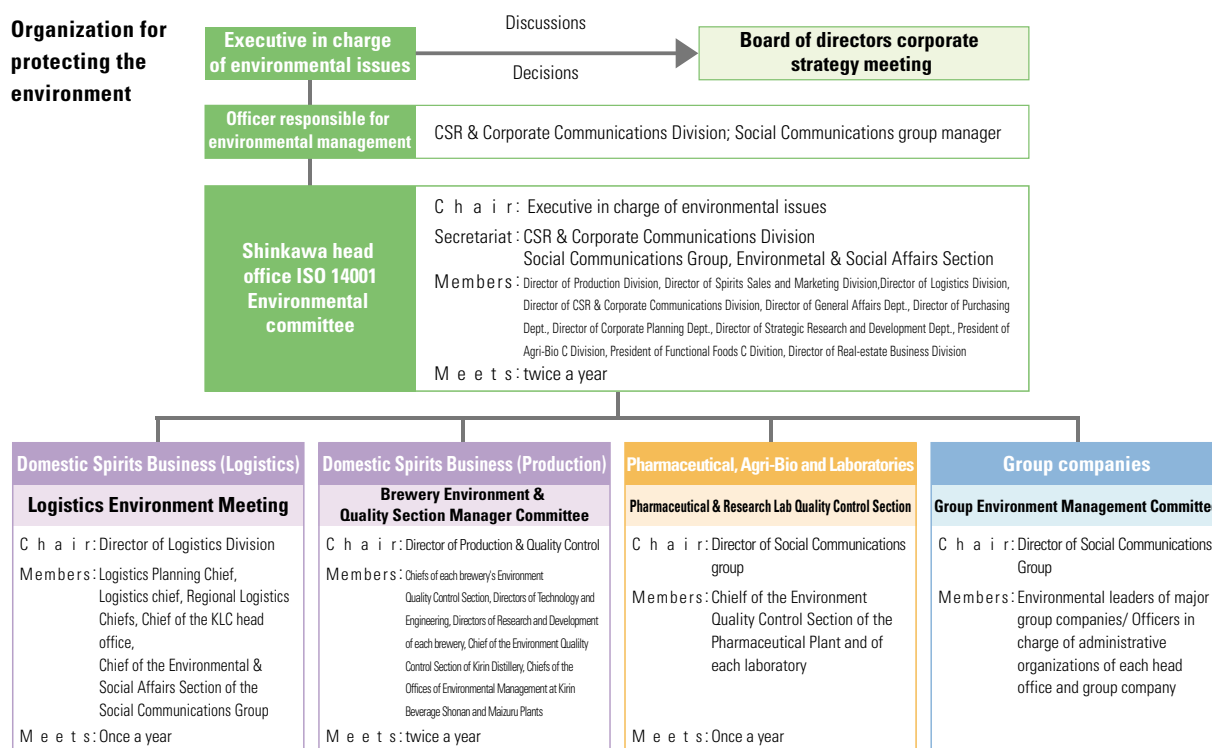
## ISO 14001 certification

In 1997 Kirin Brewery's Hokuriku Brewery was the first location in the food and beverage industry to obtain ISO 14001 certification. By 1999 all of our breweries had obtained the

## Organization for protecting the environment

Our environmental protection activities encompass matters such as resource and energy management and the issue of waste. Every aspect of our business can contribute to solving these issues, which is why we have implemented a management system that will help build a sustainable society.

### Organization for protecting the environment



Our domestic alcoholic beverage business, our pharmaceutical and agribio business divisions and research laboratories and our group companies all report their initiatives back to the Head Office Environment Committee.



## Environmental management indicators: environmental impact intensity

Kirin Brewery uses “environmental impact intensity” as one of its environmental management indicators. This indicator is used to calculate the environmental impact for the emissions or use of materials when as a company we add value to our products. We are looking to improve on this indicator by using it to increase our added value and at the same time reducing our environmental impact. (Refer to page 59 for the method of calculating the degree of environmental impact).



## Environmental accounting

Environmental accounting is used to aggregate the environmental mitigations achieved in one year by the company as a whole and each site\*. It also helps us monitor what measures have been taken and their cost, and the effect of these measures is then aggregated.

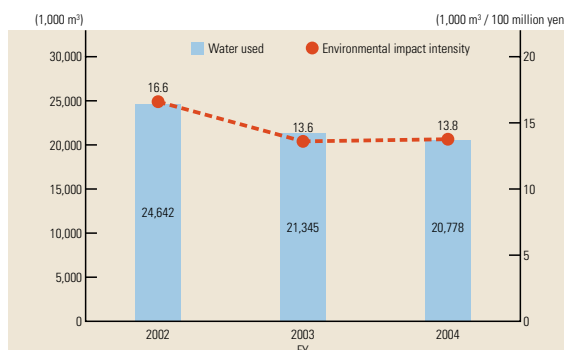
\* This refers to the business areas in which each brewery or office does business.

### Environmental protection costs (investments and expenses)

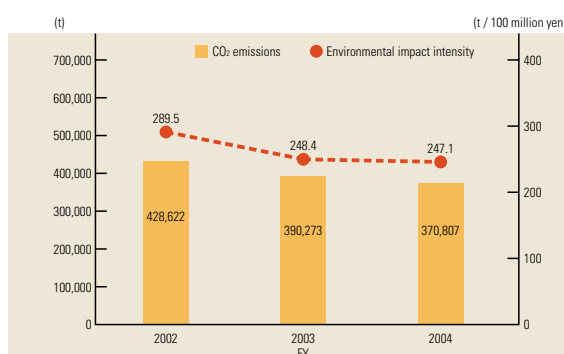
Units: million yen

Breakdown of environmental costs	Investments			Expenses		
	2002	2003	2004	2002	2003	2004
(1) Environmental protection costs to control environmental impact resulting in the business area from production and services performed	4,183	1,991	1,360	8,462	5,707	7,914
i. Pollution prevention costs	1,533	1,198	1,015	3,717	1,204	3,458
ii. Global environmental protection costs	1,686	436	254	1,623	1,609	1,505
iii. Resource recycling costs	964	357	91	3,122	2,894	2,950
(2) Upstream/downstream environmental impact curtailment costs from production and service activities	—	—	—	44	51	51
(3) Environmental protection costs from management activities	—	—	—	374	273	300
(4) Environmental protection costs from research and development	—	—	—	242	222	192
(5) Environmental protection costs from community activities	51	16	10	701	666	637
(6) Costs for environmental remediation	—	—	—	—	—	—
(7) Other environmental protection costs	—	—	—	—	—	—
<b>Total</b>	<b>4,234</b>	<b>2,007</b>	<b>1,370</b>	<b>9,823</b>	<b>6,919</b>	<b>9,094</b>

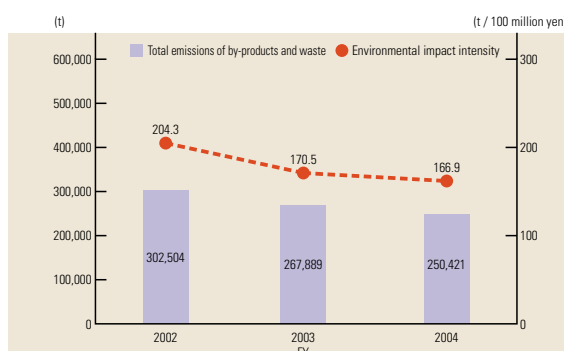
### Total water use and environmental impact intensity



### Total CO<sub>2</sub> emissions and environmental impact intensity



### Total emissions of by-products/waste products and environmental impact intensity



# Water Initiatives

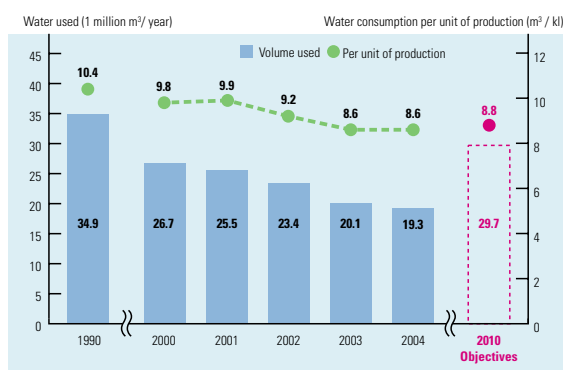
With the exception of the Hokuriku Brewery, which uses subterranean water from Mt. Hakusan, Kirin's 11 Japanese breweries use surface water. Beer making needs a certain amount of water. In order to secure enough water for the process, it is important for us to give ample consideration to an area's water resources.



## Water conservation

Because we use a certain amount of good quality water, we do our best to ensure that through water conservation, none of this precious water is wasted. At the breweries, water is used more for cleaning tanks and pipes than as a raw material. As part of our water conservation efforts, the electricity consumption of the pump that sends the water through the pipes has been cut and the same goes for the energy used to increase the temperature of the water. There has been a reduction in total water use of 44.7% compared with 1990, and a reduction of 17.5% in usage per unit of production over the same period.

### Total volume of water used and usage per unit of production\* (Kirin Brewery)



\* Consumption per unit of production : volume of water required to produce 1 kiloliter of beer or happo-shu.



## Water recycling

In order to reduce the total amount of water used, we are putting efforts into reusing water. The Kobe Brewery has a water recycling system where the water used as the final rinse water when cleaning the facilities of the plant is reused as the initial cleaning water for the next round of cleaning. Thanks to the implementation of this water recycling system, the amount of water used to manufacture beer has been cut by half.

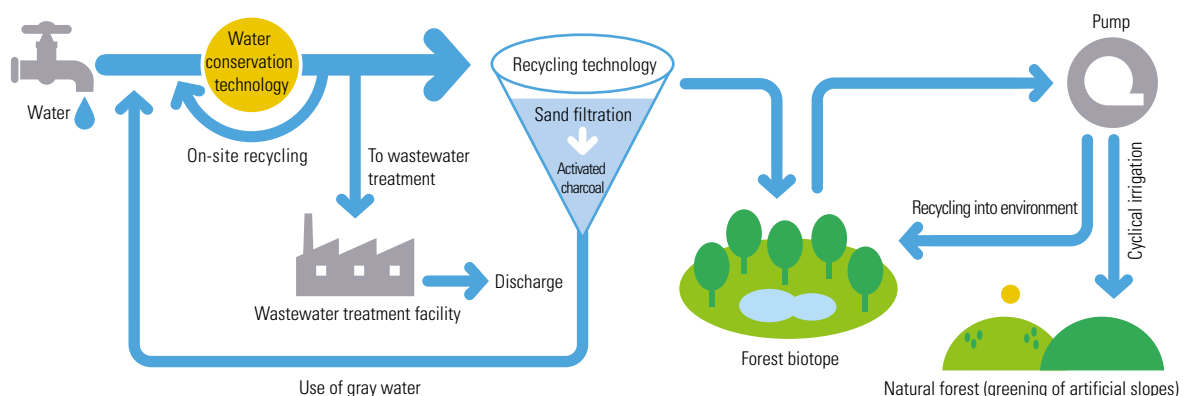
Moreover, using water-processing techniques such as sand filtration, water can be cleaned and used in the brewery's biotope (a place for raising wild flora and fauna) and forestry locations near our breweries.



## Water protection

Quality beer cannot be made without clean water. Forests play an important role in the provision of clean water for our breweries. Kirin Brewery makes efforts to preserve forests in order to ensure that quality beer can be made in the future. In 1999, Kirin began a program aimed at preserving the sources of water near our breweries, called the "Kirin Brewery Suigen no Mori-zukuri." The program addresses one site a year, so under the plan, all 11 breweries would be addressed over 11 years,

### Water recycling system



but in fact in the year since 2004, activities have taken place at more than one site. In addition, this is taking place not only at breweries, but also across the group as a whole. The program aims to promote water protection activities along with preservation of Japan's important sources of water.

The reason behind accelerating this program of initiatives is primarily to encourage our employees to re-acknowledge the importance of water in the beer-making process and to motivate them to work day to day on their environmental protection activities. Moreover, this program encourages our employees in each location to preserve the important sources of water by working alongside members of the local community.

Clean water is only possible when there is a healthy forest ecosystem, in which falling leaves decompose into nutrients for microorganisms and small animals, which in turn feed larger living things. Through its water protection activities, Kirin Brewery is advancing a number of initiatives to promote wildlife diversity.

#### Area planted at water sources for each brewery

Brewery	Forested area (ha)	No. of trees
Yokohama	Approx. 1.4	2,000
Kobe	Approx. 1.0	150
Sendai	Approx. 1.0	1,000
Okayama	Approx. 1.0	1,000
Tochigi	Approx. 1.4	4,000
Shiga	Approx. 1.2	500
Toride	Approx. 1.0	540
Nagoya	Approx. 1.5	1,000
Hokuriku	Approx. 1.0	700

#### Nagoya Brewery watershed afforestation

As part of our project "Suigen no Mori-zukuri" for Kirin's Nagoya Brewery water source located in the southern basin of the Kiso River, Aichi Prefecture, employees from the Nagoya Brewery, Tokai District Head Office and group companies, along with their families and members of the local community, have come together to plant approximately 1,000 trees: yamazakura cherry, konara oak, mountain chestnut and maple saplings, all under the guidance of the Sakurado Ryokuchiseibi Volunteer Group.

The Suigen no Mori-zukuri program began by planting trees and continues nurturing the trees afterwards. Going forward, we hope to cooperate in this endeavor with the local community and progress with our activities in and around the Nagoya Brewery. We are also contributing to the "Green Fund" promoted by the National Land Afforestation Promotion Organization, as part of our contribution to forestry preservation across Japan.



Commemorative photograph taken with program participants



Planting trees with members of the local community

#### Signing of the Biwako Sinrinzukuri Partner Kyotei (Lake Biwa afforestation partnership agreement)

Witnessed by the Governor of Shiga Prefecture, Kirin Brewery entered into the Biwako Sinrinzukuri Partner Kyotei (Lake Biwa afforestation partnership agreement) with the Otaki Forestry Association (Town of Taka, Inukami County, Shiga Prefecture) on January 19, 2005. This Agreement governs the forest located in an area spanning 820 hectares, located on the upper reaches of the Inukami River on the eastern side of Lake Biwa, an area administered by the Otaki Forestry Association. The agreement shall support these forestry efforts for 10 years. Moreover, this was the first example of an initiative taken in partnership between a business and forest owners, in keeping with the basic principles of the "Lake Biwa Afforestation Ordinance" enacted in April 2004 by the government of Shiga Prefecture.

Following the signing of the Agreement, Shiga Prefecture, the Otaki Forestry Association and Kirin Brewery started work on our forestry project and provided educational activities for residents living near Lake Biwa's Yodo River basin.

Moreover, this agreement governs activities in western Japan, so we are looking to expand our activities in eastern Japan in the future.

#### Activities in each region

Kirin Brewery support the zero emissions plan on the island of Yakushima, a part of Kagoshima Prefecture that has been registered as a World Natural Heritage Site, and in Kochi Prefecture we are working to protect the Shimanto River. There are many examples all over Japan where our activities are helping preserve sources of water.

# Packaging Initiatives

Packaging and handling products results in an environmental impact. Kirin Brewery is working towards manufacturing thinner and lighter containers and promoting the 3 R's (Reduce, Reuse, and Recycle) as part of our efforts to realize a sustainable and recycling-based society.



## Choosing containers by LCA and social cost reduction

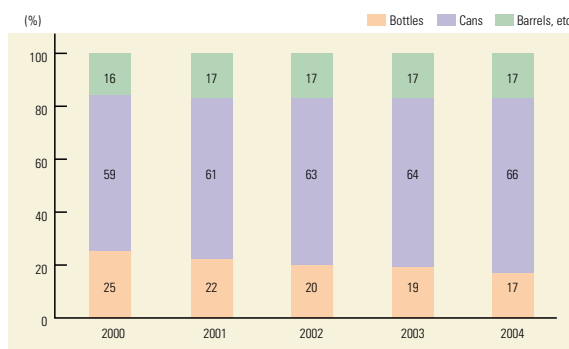
Containers should be selected based upon LCA (Life Cycle Assessment)\* and reduction of social costs. Before deciding on materials and logistics, we need to consider the particular qualities of the product, how much customers purchase at one time, retailers and how they operate and how empty containers can be collected.

\* This is an approach that analyzes and evaluates the total environmental impact of the product over its life cycle, from the sourcing of the raw materials through to disposal.

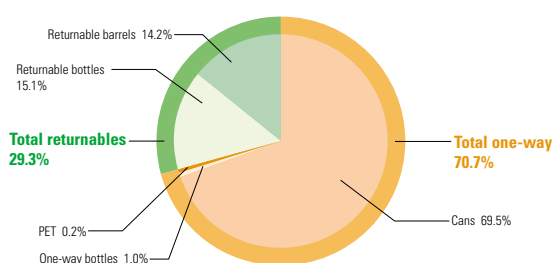
### Distribution by container type

Cans make up two-thirds of the sector and this figure is increasing gradually. Moreover, due to changes in people's lifestyles, the decreasing trend of returnable bottle use continues.

#### Distribution by container type (for the entire beer industry)



#### Sales by container 2004 (Kirin Brewery)



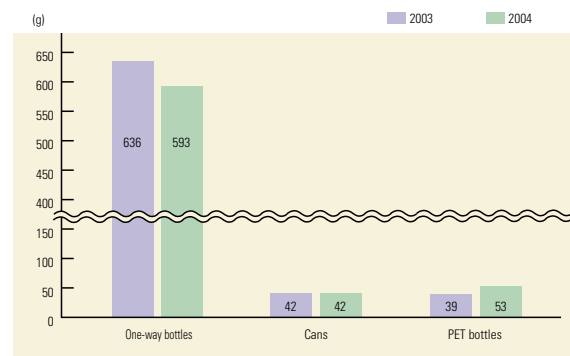
## Designing lightweight, eco-friendly packaging

In order to promote the preservation of the earth's natural resources and to reduce the environmental impact, we have adopted Guidelines for Designing Environmentally Friendly Packaging. Kirin Brewery is addressing not only packaging but also sales promotion tools and is working to develop packaging with a low environmental impact.

### Implementing the per-container environmental impact philosophy

"How much glass, aluminum and PET (polyethylene terephthalate) are consumed when a one-liter one-way container is sold?" Taking this as a unit of measure, we introduced the concept of the "per-container environmental impact." In terms of resources, a glass bottle uses roughly 600g; an aluminum can and a PET bottle use around 40g.

#### Per-container environmental impact



### A 21% lighter returnable large bottle

Since 1993, the exterior of Kirin Brewery's glass bottles has been covered with a ceramic coating that allows us to reduce the resources used for large-size bottles by 21%, from 605g to 475g. This lighter bottle was introduced in Hokkaido and its use spread from region to region. By June 2003, we had switched to the new, lighter bottle throughout Japan.



In December 2004, at an event called EcoProducts 2004 (hosted by the Japan Environmental Management Association for Industry and the newspaper the Nippon Keizai Shinbun), the new, lighter bottle won the EcoProducts Commissioner's Choice Award for its contribution to resource and energy conservation. Praise was given also for the successful switch to this new bottle across the whole of Japan.



The old (left) and new (right) bottles, with cross-sections shown below



This logo has been approved for use when advertising or promoting prize-winning products and services.



Packaging development researchers Amano (left) and Oda (right)

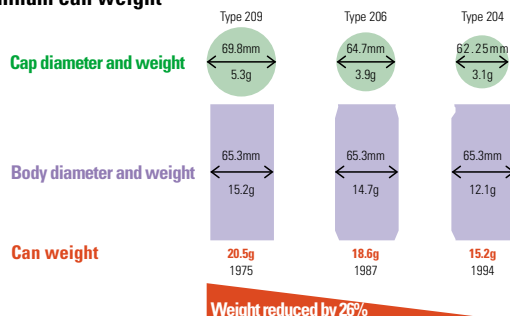
## Making cans lighter and conserving resources and energy

As can production increases, reducing the weight of cans has become more and more of an issue. In order for these cans to keep strong, we need to pay attention not only to the barrel of the can, but also to the top. By reducing the diameter of the top of the can, we have reduced the can's weight by 26%. Accordingly, using these cans results in a total electricity saving in the aluminum manufacturing process equivalent to 4.7 days of household electricity consumption of the Tokyo urban region and in savings of 26,000 tons of aluminum annually.



Lighter can by reducing top diameter

### Aluminum can weight



## Using lightweight bottles for chilled beer

We currently sell three different types of chilled products, which are directly transported from brewery to retailer at below 10° C. As it is difficult for shop owners to collect empty containers sold as separate units, we are using a one-way bottle weighing just 170g. This is approximately 50% of the weight of the same volume of returnable small bottles (351g).

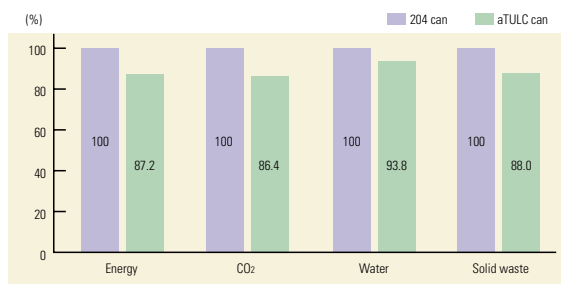


(from left)  
Maroyaka Kobo, Hojyun,  
White Ale

## Expanding use of eco-friendly aTULC cans

In 2002, the happoshu "Gokunama" went on sale in environmentally friendly aluminum aTULC cans. Both the inside and outside of the cans are laminated with polyester film in order to keep the can strong. This is our way of reducing the amount of aluminum used. As a result, the environmental impact has decreased across the board, with CO<sub>2</sub> down approximately 14%, water use down approximately 6% and solid waste down approximately 12%, according to an analysis and evaluation system developed by Prof. Itaru Yasui, a former member of Institute of Industrial Science, University of Tokyo.

### LCA Comparison (204 can vs. aTULC can)



Newly developed eco-friendly aTULC cans

### Promoting separation sales of canned beer

The 350ml and 500ml cans of Lager Beer and Ichiban Shibori are sold in two package forms: 24 cans bulk-packed in a cardboard case, and four paper six-packs in a cardboard case (which is labeled as "4 six-packs."). We ask our retail partners to sell the case with 24 cans in bulk to customers who come in looking to buy a whole case. Happoshu beers like Gokunama and Namaguro do not come in the case of four six-packs but only in cases of 24 bulk-packed cans. We have run a retailer promotion poster campaign that showed the new carton design and also highlighted our concern for the environment.



Labeled as "4 six-packs"



Labeled "24 cans"  
(does not have paper six-packs)

### Developing Japan's lightest PET bottle

Kirin Beverage Corporation in June 2003 introduced the "Pecology Bottle," the lightest bottle available in Japan, used for our 2-liter bottle of Kirin Alkali-Ion-no Mizu, .

The "Pecology Bottle" is made from PET resin at Kirin Distillery's Gotemba Plant. It is a super-light material that is having a significant effect on resource conservation. The weight of one bottle is a mere 42g, two-thirds the weight of a regular bottle. Moreover, in addition to helping reduce the environmental impact that stems from transporting the bottles and assisting with the energy conservation of the production process, these bottles also make for easier recycling, as they can be simply crushed during treatment.



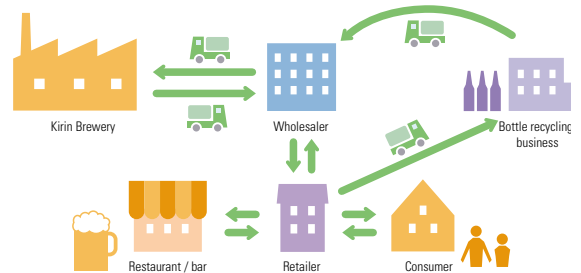
Kirin Alkali-Ion-no Mizu



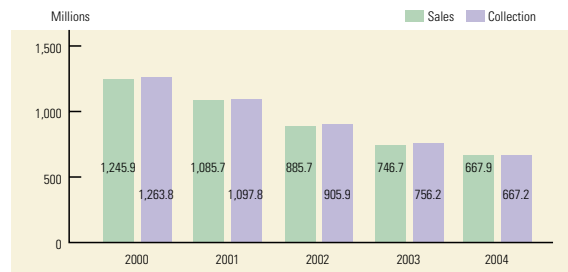
### Initiatives for returnable bottles

Due to changes in lifestyle and logistical structures, a wide variety of products are being bought in small lot sizes. For this reason, the number of bottles being sold and returned by the box continues to decline.

#### How the returnable system works



#### Major container sales and returns

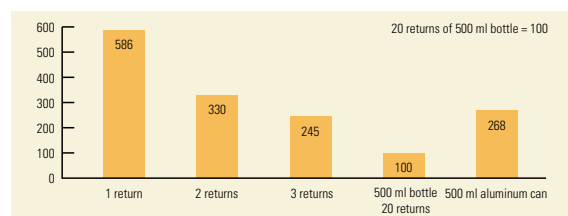


### Returnable bottles and environmental impact

The average lifespan of a beer bottle is approximately eight years. A bottle is returned three times a year, so that makes 24 returns over a period of eight years. The environmental impact depends heavily on the rate of return.

If we set the CO<sub>2</sub> emission value for a medium-sized bottle that has been used 20 times as 100, then for a bottle that is returned only once, the CO<sub>2</sub> emissions would be six times this value; for a bottle that is returned twice it would be three times as much. In these latter two examples, the environmental impact is greater than that of the 500ml aluminum can.

#### A comparison of CO<sub>2</sub> emissions of major containers (simulation of number of returns)

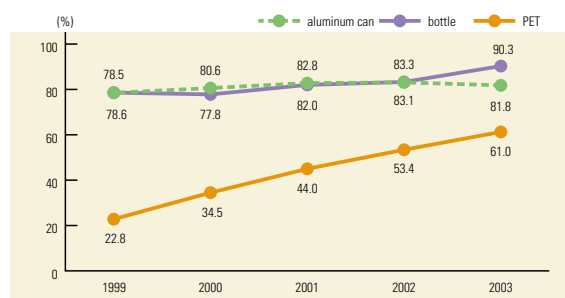




## Promoting container recycling with the cooperation of the community

For products where using a returnable container is difficult, one-way bottles or cans are used. However, rather than dispose of these items as soon as they have been used, we have prepared a number of incentives with the cooperation of the local community to ensure that these containers are returned for recycling.

### Container recycling rates



## Recycling of glass bottles

In order to promote the uptake of glass bottle recycling, Kirin Brewery has joined the Glass Bottle Recycling Promotion Council and we are working towards greater recycling of our glass bottles, while organizing educational activities for the consumer to return these glass bottles for recycling. Approximately 80% of collected bottles are reused as bottles. The remaining 20% are used as road construction material, glass fiber or tiling material.

Glass Bottle Recycling Promotion Council web site:  
<http://www.glass-recycle-as.gr.jp/>

## Recycling aluminum cans

Kirin Brewery is a member of the planning council of Japan Aluminum Can Recycling Association. The Association presents awards to organizations that do outstanding work for recycling and it supports activities to encourage people to return cans. Kirin Brewery and the Kirin Beverage Corporation support the can collection activities of neighborhood groups, volunteer organizations and elementary and junior high schools. Aluminum cans have a very high recycling rate of over 80%, of which almost 70% is recycled into aluminum soft drink cans. The other 30% is used for car wheels, and lightweight aggregate and other materials for the construction industry.

The Japan Aluminum Can Recycling Association web site:  
<http://www.alumi-can.or.jp/>

## Recycling PET bottles

Through the Japan Distiller's PET Bottle Recycle Association, Kirin is a member of the Council for PET Bottle Recycling. The Council encourages the recycling of PET bottles, carrying out a variety of research and surveys.

In 2003, Teijin Ltd. developed a process whereby PET bottles could be returned to their original resin state through a chemical decomposition process. In 2004 they started a "bottle-to-bottle" PET bottle recycling operation.

The Council for PET Bottle Recycling web site:  
<http://www.petbottle-rec.gr.jp/top.html>



## Working to prevent drink container litter and beautify the environment

Six national organizations, including the Japan Soft Drinks Association and the Brewers Association of Japan, have been working under the umbrella of the Beverage Industry Environment Beautification Association for the past 30 years to prevent beverage can litter through various educational and other activities. We have also established an award system for schools excelling in environment beautification education and we distribute our general teaching guide "Town Beautification and Recycling" for elementary and middle schools free of charge. We also promote the environment beautification "Adoption Program" with its 450,000 participants from 6,500 organizations in 210 municipalities.

Kirin Brewery's Toride Brewery participates in an adoption program for public facilities in Toride City, Sendai Brewery participates in the Miyagi Smile Port Program in Miyagi Prefecture and Kirin Beverage's Maizuru Plant participates in the Maizuru City "Adoption program Maizuru."

Beverage Industry Environment  
 Beautification Association  
 Web site:  
<http://www.kankyobika.or.jp/>



Beautification activities undertaken by employees from Sendai Brewery



Signboards at the Toride Brewery



Signboards at the Maizuru Plant of Kirin Beverage Corporation

# Initiatives to Prevent Global Warming

Since the enforcement of the Kyoto Protocol, corporations have been needed to step up their initiatives to prevent global warming. At the Kirin Group, as part of our social responsibility, we have adopted a number of policies to prevent global warming, starting with our efforts to reduce energy consumption.



## Reducing energy usage and CO<sub>2</sub> emissions

Greenhouse gas emissions of the Kirin Group, when converted to CO<sub>2</sub> emissions, make up less than 0.1% of the total emissions of Japan. However, in order to protect the global environment and to develop and maintain a sustainable society, we need to make long-term efforts to cut the greenhouse gas emissions, not just short-term ones. All individuals need to be involved in these initiatives in their ways.

The Kirin Group considers energy is a limited resource, which means that we are promoting initiatives that conserve it.

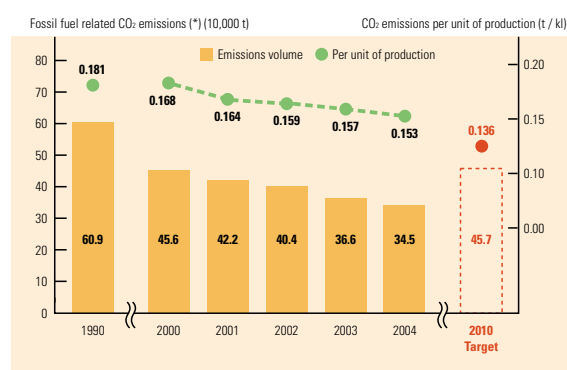
At the start of the year, our mid-term business plan goals reflect this stance and the goals for the year are linked to specific action plans that are executed and undergo regular evaluation and follow-ups throughout the year. Each business location has an energy conservation committee that promotes a variety of energy conservation activities.

Starting with each and every employee's daily commitment to energy conservation, we are proactively working to reduce CO<sub>2</sub> emissions in the specific areas of brewing that can be examined from an energy point of view, such as harnessing the surplus heat generated during the beer making process.



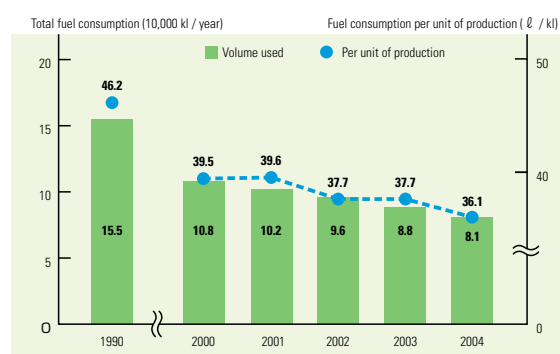
Group Environment Management Committee (opened at the Kirin Brewery Head Office)

## Volume of CO<sub>2</sub> emissions and per-unit emissions (breweries)

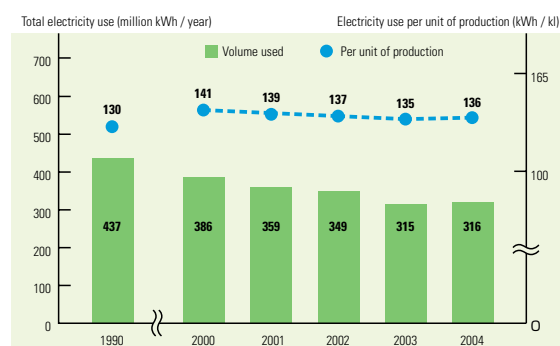


\*Fossil fuel-related CO<sub>2</sub> emissions: the total for fossil fuels plus the CO<sub>2</sub> emissions released during the generation of purchased electricity. The information in this calculation pertaining to the amount of CO<sub>2</sub> emissions released during the generation of the purchased electricity is supplied by our electricity suppliers.

## Total fuel use and per-unit use (crude oil equivalent)



## Total electricity use and per-unit use (including internally generated electricity)



## Total CO<sub>2</sub> emissions from brewing process

CO<sub>2</sub> emissions during FY 2004 stemming both from CO<sub>2</sub> released during the generation of purchased electricity supplied to the plants and from the consumption of fossil fuels were down 5.7% on the previous year in total, while per-unit emissions were down 2.6%. Each business location can show positive results stemming from these initiatives to conserve energy.

## Volume of energy used in brewing processes

Fuel usage during FY 2004 was down 7.2% on the previous year in total and per-unit usage were down 4.1%. Electricity usage was down 2.8% on the previous year in total and up 0.5% per unit.



## What the Kirin Group can do towards achieving a sustainable planet

### Utilizing nature's bounty in energy usage

Kirin Brewery has been proactive in harnessing the energy that is a gift from the earth: biomass energy.

There are two approaches to wastewater processing. One is an aerobic process, in which air is provided so that microorganisms will break down organic matter. The other is an anaerobic process, in which the same happens without a supply of air. In the past, wastewater processing at breweries used mainly the aerobic approach, but the anaerobic process does not require electricity to supply air. This reduction in energy use has prompted us to implement the anaerobic process.

Currently, 10 plants across the country are using the anaerobic process and are recovering biogas (methane) from the biomass. This biogas is equivalent to a reduction of 4,199kl of crude oil, which translates to a reduction of 7.6 million kWh of electricity. Biogas is used for making steam or electric power, and in the future we plan to use high efficiency biogas engines at all major plants.

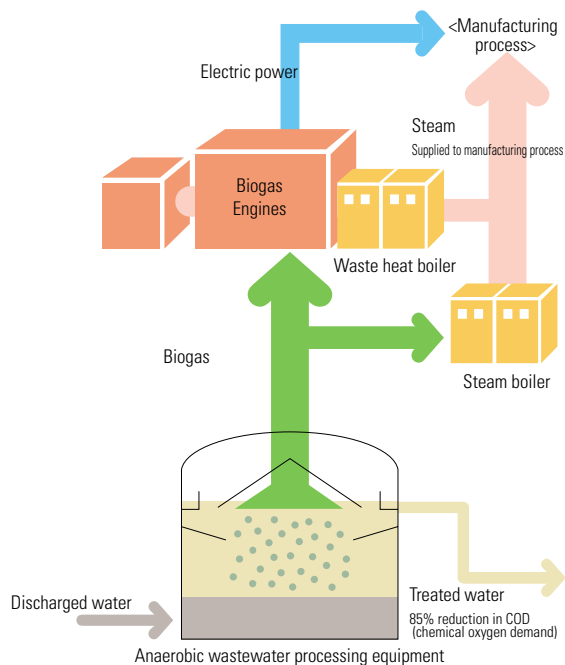
## Installation of anaerobic processing facilities and biogas boilers.

The anaerobic process converts the organic matter in the untreated water into biogas. Using the collected biogas, we can recover the steam used to run boilers and recover the electricity generated by gas engine generators. Moreover, because the amount of excess sludge generated by the anaerobic process is very small, the environmental impact can be drastically reduced.

## Introduction of biogas engine cogeneration system

Using the biogas generated from the anaerobic approach to plant water processing as fuel for the boiler is a big step towards energy conservation. However, this approach has one drawback: when the process results in too much biogas being generated, more than the boiler needs, then the methane is simply burned off into the atmosphere. Besides, with many energy conservation strategies resulting in further reductions to the amount of steam required for the brewing process, this will lead to more excess reserves of biogas. To recover the biogas to generate more valuable electricity, we have installed highly efficient biogas cogeneration systems. Our Kobe Brewery (730kWh, installed 2002) and our Yokohama Brewery (920kWh, installed 2004) are generating electricity this way.

### Anaerobic processing facility and biogas cogeneration system





### Introduction of fuel cell cogeneration system

Another approach to using biogas to generate electrical energy is through its use in fuel cells. In 2003, at the Toride Brewery, we received the support of NEDO (the New Energy and Industrial Technology Development Organization) in installing a fused carbonate fuel cell, which generates 250kWh of electricity. This type of fuel cell generates electricity with great efficiency, and can use a wide variety of fuels, ranging from natural gas, LPG and waste gases, and others.

At the Toride Brewery, all the electric power generated by biogas from the wastewater facility and all the steam created by recovering the exhaust heat is used to supply energy to keep the plant running.

### Structure of the heat cascade

Brewing requires heat during the process itself, then a cool place for storage. Each stage requires a specific temperature. Even during the hot and cold processes, the temperature will always tend to revert to the ambient temperature, so excess heat is generated when the temperature is lowered (or even raised). This excess heat is not wasted, but recovered and used in subsequent processes. This system is called heat cascading. The system has been implemented at our plants, and the end

result is a dramatic reduction in the energy used in making beer.

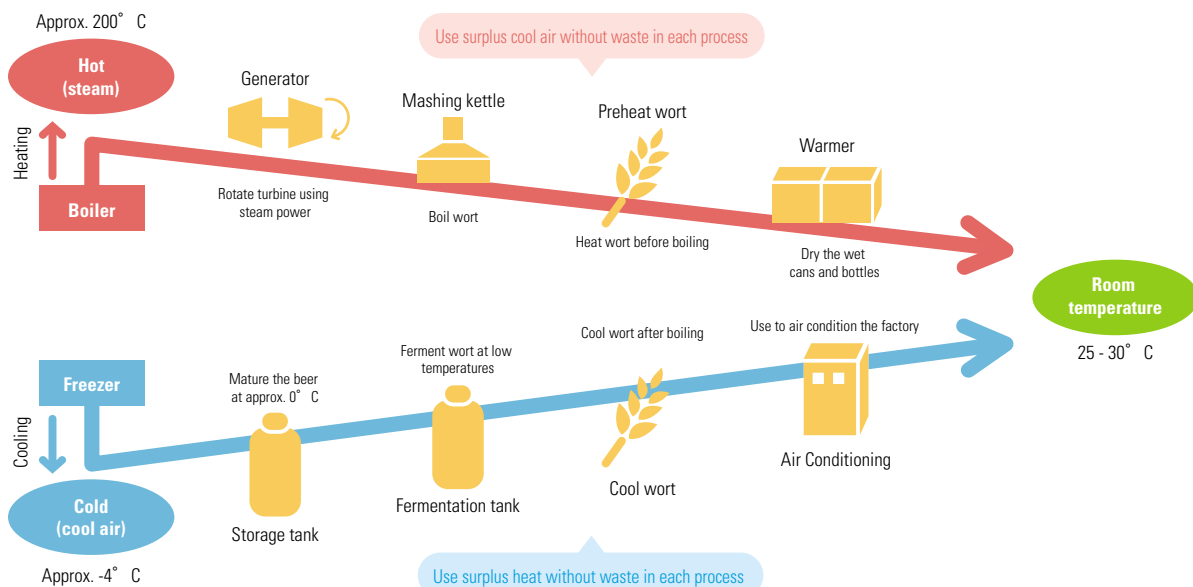


### Larger trucks limit CO<sub>2</sub> emissions

Kirin Brewery has changed its trucks used for transporting beer from 20 ton models to 25 ton models as part of our efforts to reduce CO<sub>2</sub> emissions. The change to using the larger trucks has led to a reduction of the number of trucks in use, another reason for the reduction in CO<sub>2</sub> emissions. In 2004 we converted to 43 more large trucks for a total of 248, bringing our conversion rate to 84%. We expect to progress further with this program in 2005.

Currently, we have acquired certification under the Green Management Auditing System, an environmental management system for the logistics industry (certification and registration by the EcoMo Foundation) and are working to protect the environment in our logistics. Furthermore, we are effecting a modal shift, from truck transport to rail container transport, another way for our logistics to cut their CO<sub>2</sub> emissions.

### How heat cascading is used





## Promotion of mini cars for the sales force

Mini cars have a much smaller environmental impact than regular automobiles, due to their lower fuel needs and reduced exhaust gases. Kirin Brewery, as part of its environmental initiatives, began to convert all of its sales vehicle fleet to mini

vehicles in January 2003. Currently, we have 2,322 cars being used by the sales force around the country. Of these, 1,365 are standard-size automobiles and the other 957 are mini vehicles. Going forward, when we expand and replace our vehicles, we will introduce only mini cars, part of our plans to reduce our environmental impact. Moreover, we have also begun to use hybrid vehicles (which combine the best features of two different energy sources, one of which is electric power) depending on the usage. Currently we are running 23 hybrids.

### Vehicle conversion status

Logistics trucks	Regular (20 ton) trucks: 47	Large (25 ton) trucks: 248	Conversion rate: 84%
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Sales vehicles	Standard-size cars: 1,365	Mini cars: 957	Conversion rate: 41%
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### Brewery + logistics CO<sub>2</sub> emissions

(units: 10,000t)

	Logistics	Plant	Emissions due to fermentation	Purchased CO <sub>2</sub>	Emissions from wastewater processing
2000	8.6	45.5	8.5	4.4	6.7
2001	7.3	42.2	7.9	4.1	6.2
2002	7.1	40.4	6.9	4.2	6.6
2003	8.0	36.6	5.6	4.3	6.0
2004	8.1	34.5	5.6	4.3	6.3



## CFC strategies emphasize total environmental impact

Kirin Brewery uses high efficiency refrigeration units with the least possible global warming effect. These units were assessed comprehensively, looking not only at the global warming potential of the refrigerant but also its refrigerating potential. At the end of 2002 we eliminated all refrigeration units that used CFCs, the compound that is connected to the destruction of the ozone layer.

### Major energy-saving facilities and their installment at breweries

Process	Energy saving facilities	Effect (energy conservation, etc.)	Chitose	Sendai	Tochigi	Toride	Yokohama	Nagoya	Hokuriku	Shiga	Kobe	Okayama	Fukuoka
Power	<b>Cogeneration equipment</b>	A system which produces heat and electricity at the same time. The system produces electricity by burning fuel to rotate turbines and engines. As the system uses the exhaust heat, the combined efficiency rises to 80%.		●	●		●	●		●			●
	<b>Thermal storage refrigeration system</b>	Using nighttime electricity, this facility stores ice and cold water for use during the daytime, when the refrigeration impact is high. Electric consumption is thus flattened over a 24-hour period.										●	
	<b>Ammonia refrigeration system</b>	Refrigeration equipment using ammonia rather than CFCs with high global warming potential			●					●		●	●
Mashing	<b>Vapor recompression system (VRC)</b>	A type of high thermal efficiency heat pump that mechanically compresses low pressure steam from mashing and reuses it.	●								●	●	●
Fermentation	<b>Fermentation CO<sub>2</sub> recovered</b>	The CO <sub>2</sub> gas produced as yeast metabolizes sugars during fermentation is captured, refined and liquefied for use in packaging and other operations. This reduces CO <sub>2</sub> emissions.		●	●	●	●	●		●	●	●	●
Waste water	<b>Anaerobic wastewater processing equipment</b>	A method for treatment of wastewater using the metabolic activity of anaerobic bacteria. It decomposes organic matter and purifies the water efficiently, while minimizing energy consumption and the production of excess sludge.	●	●	●	●	●	●	●		●	●	●
	<b>Fuel cell</b>	A system for efficiently generating electricity through electrochemical reaction of hydrogen and oxygen extracted from such sources as biogas. Different types use phosphoric acid, molten carbonate fuel, and so on.				●							
	<b>Biogas boiler</b>	A boiler that uses the biogas, such as methane, produced by anaerobic wastewater processing equipment. It reduces fuel consumption.	●	●	●	●	●	●	●		●	●	●
	<b>Biogas engine cogeneration</b>	The generation of electricity with an engine using methane or other biogas as fuel, and the use of that electricity.			△	△	●	△			●	○	○

● Working ○ Under construction △ Planning

# Resource Recovery Initiatives

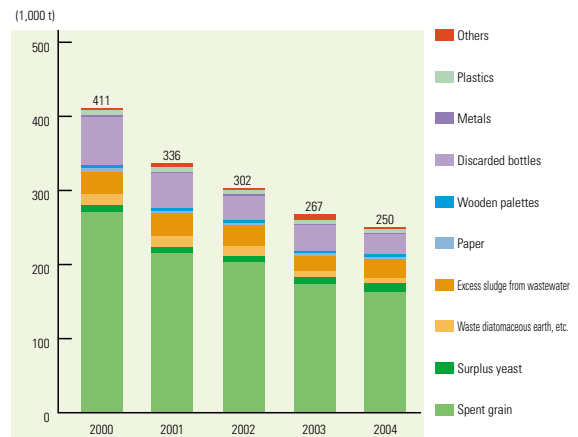
Natural resources are limited bounties. In order to use them wisely and to make them last, the Kirin Group uses the by-products and waste that are generated in the manufacturing process, instead of discarding them.



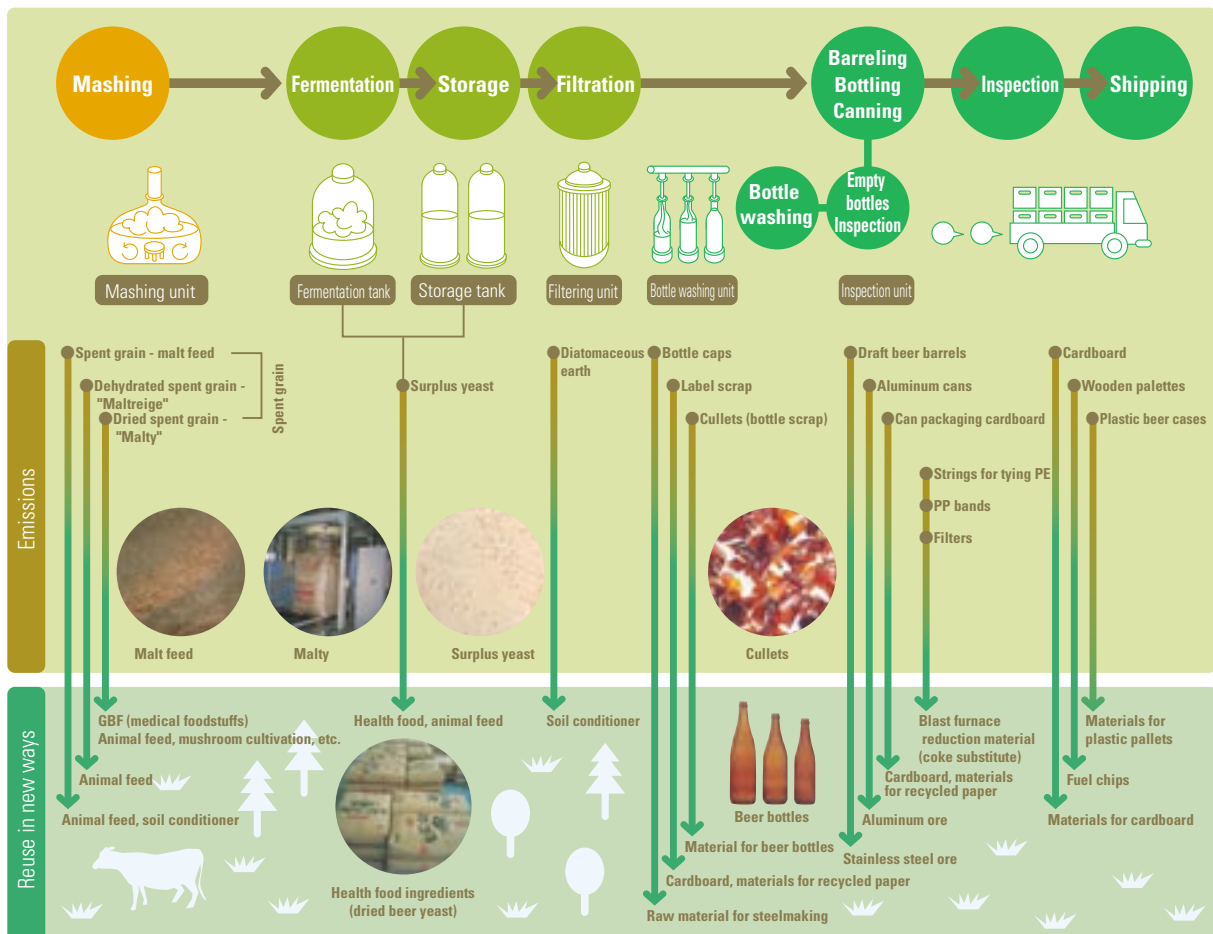
## Seeking to make beer without generating waste

Beer making generates various by-products and waste, such as spent grain and paper scrap. At Kirin Brewery, we endeavor to avoid generating excessive waste to begin with. To the best of our ability, we recycle unavoidable by-products and waste. In this way, we avoid sending them to landfills. As a result, we achieved 100% recycling in all of our breweries in 1998. We have continued to achieve this through 2004.

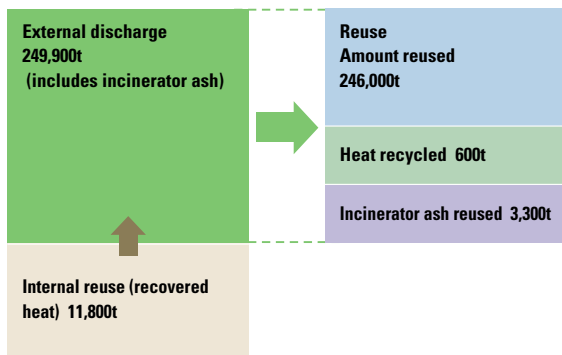
By-products and wastes generated at breweries



Waste from beer production and methods of reuse



## By-product/waste material flow



## By-product/waste management system

Kirin Brewery has introduced an environmental information system which enables us to dispose of waste properly and reuse it more effectively. With this system, we manage our resources uniformly all the way through to final disposal.



## System in place for carefully sorting waste

At Kirin Brewery, we display samples of actual waste objects next to the trash collection boxes. This provides a work environment which helps everyone understand how to dispose of waste. It is important to continue to carefully sort waste. We use about 40 categories. At the Shinkawa and Harajuku Head Offices, we place emphasis on educating personnel on the main points of sorting and recycling. This education session is repeated as personnel are transferred.



Sorting trash at Shinkawa Head Office



## Advancing waste recycling with new equipment

Since human efforts alone have limited effect, Kirin Brewery is introducing equipment in our quest for 100% recycling of the many substances generated from breweries. The breweries now have compacting systems for, among other things, rolling up packaging film and crushing cans.

## Sorting



### Sorting cans

Cans that are being discarded as waste are separated into aluminum and steel and then compressed. This simplifies storing and transporting the cans.



### Piling up rejected bottles

Bottles that cannot be used as returnable because of breakage or scratches are separated and processed into glass cullets (bottle scrap).

## Recycling



### Truck oil recycler

A device for collecting old truck oil for recycling.

## Pretreatment



### Dehydrator

We reuse sludge from wastewater as fertilizer or as a soil conditioner.

Dehydrating it simplifies storing and transporting.



### Drying equipment

Drying the recovered yeast makes it keep longer and improves efficiency of handling.

## Compacting



### Rolling up film

For reuse, we roll up plastic film that has been used for packaging and stabilizing cargo. Compacting makes it easier to store and improves efficiency of handling.



### Crusher

Bottles that cannot be used as returnable because of breakage or scratches are pulverized and reused as cullets.



## Seeking better ways to recycle

By-products of the process of making beer are reborn for many different uses.

Since 1993, as part of our efforts to become more eco-friendly, the Functional Food Division's laboratory has been hard at work to create high value added materials from the ingredients and by-products of beer production. Products we have developed include: nutrients for mushroom beds (product name: Gen-kinoko) from spent grain, a water-retention improving agent for mushroom beds (product name: Ogamalt), and food for the sick (product name: Germinated Barley Foodstuff (GBF)), which has been approved by the Ministry of Health, Labor and Welfare for use by patients with ulcerous colitis.

In addition, using the miniature scale cultivation technique that we acquired while developing Gen-kinoko, we succeeded in 1998 in cultivating *Mycleptodonoides aitchisonii* (bunaharitake) mushrooms in mushroom beds.

This is an edible fan-shaped mushroom that clusters on, among other places, fallen beech trees. Studying the properties of wild mushrooms has been very challenging in the past, as it requires samples in large quantities. Artificial cultivation has become possible due to various kinds of research, and as a result, the blood pressure lowering property of *Mycleptodonoides aitchisonii* extract using hot water was discovered. We offer the extract as a special health food product.



Kirin Beverage Corporation put "b-flat" on the market in June of 2004. This soft drink contains an extract of *Mycleptodonoides aitchisonii*, which we were the first in the world to succeed in cultivating artificially. b-flat was approved as a "special health food" suitable for consumption by people who have moderately high blood pressure.

Kirin Noale is a dietary supplement that uses *Lactobacillus paracasei* KW3110. It is recommended for people who are very sensitive to allergens. To suit our customers' preferences and lifestyles, we have prepared four versions: tablet, capsule, powder and lemon tablet.



## Managing chemical substances

In accordance with the Pollutant Release and Transfer Register Law, the Kirin Group manage substances that may have adverse effects on people's health and on the ecosystem.

We have replenished a total of 1.1 tons of 2,2-dichloro-1,1,1-trifluoromethane used as refrigerant in refrigerating machines in our beer making process. We also use dioxin-like substances at a concentration of 0.1 mg-TEQ to operate fluidized bed boilers (for heating), and emit 1.3 tons of acetonitrile and 2.5 tons of chloroform used for material extraction in our laboratories.

As for group companies, Takeda-Kirin Foods discharges 4.3 tons of trichloromonofluoromethane replenishing refrigerants, its laboratories discharge 10 tons of toluene for example to extract substances, and during materials incineration Kirin Beverage Corporation discharges dioxin-like substances at 1.7 mg-TEQ.



## Compliance and prevention of environmental damage

Kirin Brewery has established, and we are following, voluntary standards that are stricter than those of the Basic Environment Law and other laws and regulations pertaining to the environment, and that are tougher than those established in agreements with neighboring municipalities. We work to prevent environmental damage and pollution through measures such as in-plant patrols. Incidents reported in 2004 in the neighborhood of the 15 sites belonging to the group's 9 companies with manufacturing bases, each brewery, and the Takasaki Pharmaceutical Plant are shown in the table below. We have formulated appropriate plans for improvement in facilities and operational methods, and quickly handled each reported incident.

### Incidents reported in 2004

Atmospheric pollution	None	
Water contamination	At breweries: none	At group companies: 1
Noise/vibration	At breweries: 1	At group companies: 2
Other	At breweries: 3	At group companies: 2

# Environmental Communication

In order to make sure that disclosure of environmental information is not a one-way street, and to promote two-way communication, we have established opportunities for people to voice their opinions through our web site, events and brewery tours.



## Disclosure of environmental information

### Ecojiro, Kirin Brewery's environmental character

Kirin Brewery's environmental character, Ecojiro, was fashioned from the foam that forms when you pour beer. We use him to help disseminate environmental information so that everyone, children and adults alike, can easily understand it.



### Placement on our web site

Kirin Brewery profiles its environmental initiatives on its web site. We describe activities including can recycling, bottle recycling and environmental reporting. "Ecojiro's Environment Table" is especially popular with kids, because it makes it fun to learn about the environment. We also seek to communicate with our overseas customers. To this end, we have placed environmental information on our English language web site.



<Ecojiro's Environment Table web site>  
<http://www.kirin.co.jp/active/env/eco/index.html>

## Presentation at environmental exhibitions

Kirin Brewery familiarizes its customers with our environmental initiatives by participating in environmental exhibitions and



"Environmental Messages" from attendees

local events. In 2004, we exhibited at the 16th Nationwide Lifelong Learning Festival in Aichi Prefecture and communicated with attendees on the theme of the environment through activities such as the "Ecojiro Quiz."

## Presenting information at brewery tours

Kirin Brewery holds activities such as our "Environmental Plant Tour" focusing mainly on environmental facilities and we have set up an area where participants can learn about the environment in a fun way with Ecojiro. Through these public relations activities we inform the public of our environmental protection activities.



Kobe  
 Brewery Ecojiro Plaza



## Local clean-up campaigns



Tochigi Brewery  
 Participating in the "Kinugawa Clean Campaign"

The Kirin Group proactively participates with local communities in clean-up campaigns held close to our work sites and at tourist attractions.



# Independent Verifications



## Independent Assurance Report

To the Board of Directors of Kirin Brewery Company, Limited

We have examined Kirin Group CSR Report 2005 (the "CSR Report 2005"). The purpose of our examination is to report to the Company whether the Environmental Performance Indicators and the Environmental Accounting Indicators for the year ended December 31, 2004 described on pages 41 and 43 of the CSR Report 2005 (collectively, the "Indicators") have been rationally identified, aggregated and disclosed, in all material respects and in accordance with the Company's policies described on page 39. The CSR Report is the responsibility of the Company's management. Our responsibility is to independently report the results of our examination. Our examination was conducted in accordance with International Standard on Auditing 100, "Assurance Engagements", issued by the International Federation of Accountants.

### Our examination procedures included:

- Made inquiries of responsible personnel regarding the Company's reporting policy for the CSR Report 2005.
- Obtained an understanding of the Indicators to be disclosed, made inquiries regarding the methods of identifying Indicators and the process of aggregating them, and evaluated the design of and compliance with the Company's relevant internal controls.
- Verified whether or not the Company's procedures used for the identification, aggregation and disclosure of the Indicators actually complied with the policy:
  - Performed analytical procedures such as comparative analysis among sites and between years by site for each Indicator, made inquiries of the Company personnel regarding significant fluctuations, and ascertained the appropriateness of their answers by tracing the supporting documentation.
  - Made inquiries regarding the outline of the environmental management system and identified significant environmental information through reviewing the internal audit report on environment issues at each site we inspected.
  - Reviewed non-conformance and corrective action reports and external communication reports for important non-compliance with relevant laws and regulations or complaints relating to environmental issues.
  - Examined, at each site we inspected, accuracy and timeliness of the indicators by tracing on a sample basis to their original supporting documents such as manifests, measurement certification reports, measurement instrument calibration records, estimates and invoices.
  - Assessed the appropriateness of the coefficients used for environmental performance indicators and the method of identifying the environmental conservation cost and offset for environmental accounting.
  - Reviewed reports of the Indicators prepared by site, verified the accuracy of aggregation of the Indicators made in the head office, and assessed appropriateness of their disclosure in the CSR Report 2005.

We believe that the procedure performed provide a reasonable basis for the following:

In our opinion, the Environmental Performance Indicators and Environmental Accounting Indicators disclosed on pages 41 and 43 in the CSR Report 2005 of the Company are fairly identified, aggregated and disclosed in accordance with the Company's policies described on page 39.

*AZSA Sustainability Co., Ltd.*  
AZSA Sustainability Co., Ltd.

Tokyo, Japan  
June 10, 2005



AZSA Sustainability Co., Ltd.  
Manager/Certified Public Accountant  
Ms. Maho Yao

Kirin Brewery has published environmental reports annually since 1994. Starting from 1999 edition the reports were subjected to independent reviews and subsequently independent verifications from 2002 edition. A "verification" covers a broader spectrum of procedures, and therefore it provides higher assurance level of a "review."

AZSA Sustainability Co., Ltd. (former Environmental Management Consulting of Asahi & Co.) has conducted seven reviews and verifications to the reports, including this edition. Over the previous reviews and verifications, we confirm that Kirin Brewery's management of environmental performance indicators is essentially trustworthy, and its collection and disclosure of environmental information has been increased in accuracy from year to year.

We still point out that Kirin's environmental accounting, which measures environmental protection activity in monetary terms, would not be effectively utilized in particular to effective indicators such as environmental impact intensities and eco-efficiency indexes.

Therefore, it would be worthwhile for Kirin Brewery to develop a scheme that is enable to compare measures taken by the 11 breweries for their investment and environmental protection effectiveness, so that it will inspire them to get more proactively involved. In addition, it can be used to examine and compare the group-wide measures.

Regarding the upcoming CSR reports, we expect to see information on business sites introducing EcoAction 21, as well as information on actions and results of the group-wide environmental managements, an area that is not sufficiently covered in this CSR report.

## Looking ahead to next year's report

We have thus far subjected ourselves to review by a third party in order to increase transparency in our disclosure of environmental information. Through this process, we have had our environmental process verified objectively, allowing us to improve the quality of our day-to-day operations. We have established a framework to gather and manage environmental information from each location efficiently through an environmental database that includes electronic manifest management. We believe that this has proven effective.

The internal application of environmental accounting that has been recommended is a topic we would like to examine carefully and put to use. Also, we intend to develop an environmental management system for the group by specifying target companies and taking relevant steps in our 2004 - 2006 Medium-Term Strategic Plan. We will continue to apply the perspectives of both experts and society at large, take on environmental protection aggressively, and report on the results.



CSR & Corporate Communications Division  
Manager, Environmental and Social Affairs  
Section, Social Communications Group  
Yoshiyuki Yamamura

# Standards for computing environmental performance and for environmental accounting

## [1] Period covered

January 1, 2004 through December 31, 2004 (except April 1, 2004 through March 31, 2005 for disclosure data related to the PRTR Law)

## [2] Covered organizations

Kirin Brewery Company, Limited = All breweries, Takasaki Pharmaceutical Plant, Pharmaceutical Research Laboratory, Pharmaceutical Development Laboratories, Plant Laboratory, Central Laboratories for Key Technology (Currently the Frontier Technologies Research Laboratories), Head Offices

Kirin Beverage Corporation = Shonan Plant, Maizuru Plant

Kirin Distillery Co., Ltd.

Nagano Tomato Co., Ltd.

(Some environmental performance indicators and environmental accounting for group companies are not included)

## [3] Standards for computing environmental performance

We have used as a reference the FY 2003 version of the Ministry of the Environment's Environmental Reporting Guidelines and the Global Reporting Initiative's (GRI) FY 2002 version of the Sustainability Reporting Guidelines.

Environmental performance indicators			Units	Computation method
Inputs	Total energy input		TJ	Yearly electric consumption (kWh) x unit input heat quantity (*1) + ∑ [yearly consumption of each fuel x each unit heat generated (*2)] *1: 9.83 MJ/kWh from Enforcement Regulations for the Law Concerning the Rational Use of Energy (amended December 27, 2002) *2: As per units of heat release classified by energy source, Agency for Natural Resources and Energy Heavy oil A: 39.1 GJ/kg; heavy oil C: 41.7 GJ/kg; kerosene: 36.7 GJ/kg; city gas (12A/13A): 45.9 MJ/m³N; LPG: 50.2 GJ/t
	Breakdown	Fuel utilization (crude oil equivalent)	10,000 kl	∑ [yearly consumption of each fuel x fuel crude oil conversion factor at each facility (*)] *: As per crude oil conversion factor, the Law Concerning the Rational Use of Energy Heavy oil A: 1.01 kl/kg, heavy oil C: 1.06 kl/kg, kerosene: 0.96 kl/kg, city gas: 0.00119 kl/m³N
		Electricity purchased	1,000 MWh	Yearly electric consumption (1,000,000 kWh)
	Total materials input		10,000 t	Yearly input of raw and packaging materials (10,000 t)
	Water resource input		10,000 m³	Yearly consumption of municipal, well and industrial water (10,000 m³)
Outputs	Production volume		10,000 kl	Yearly production volume of beer, happoshu and liquors (10,000 kl)
	By-product and waste generated		10,000 t	Yearly total emissions (*) (10,000 t) = valuable resources (10,000 t) + waste (10,000 t) (excluding industrial waste subject to special control) *: Emissions when carried out at the place of business (10,000 t)
	Total water discharge		10,000 m³	Yearly water discharge (10,000 m³)
	Carbon dioxide	fossil fuels emissions	10,000 t	CO₂ emissions (10,000 t) = ∑ [yearly consumption of each fuel x CO₂ emission factor of each fossil fuel (*)] *: As per the Enforcement Regulations for the Law concerning the promotion of the Measures to Cope with Global Warming (amended December 2002) Heavy oil A: 2.710 t-CO₂/kg, heavy oil C: 2.982 t-CO₂/kg, kerosene: 2.489 t-CO₂/kg City gas (2.188 kg-CO₂/m³) : calculated according to unit heat release classified by energy source, Agency for Natural Resources and Energy and C emissions factor from the enforcement regulation
		Electricity purchased	10,000 t	Yearly electric consumption (10,000 kWh) x emissions factor (*) x 10³ *: Emissions factor for each electric power company (except Kirin Brewery Head Offices, Takasaki Pharmaceutical Plant and Laboratories and group companies, for which emission factor for general electric power suppliers (0.378 kg-CO₂/kWh))
	(Logistics)		10,000 t	Total transportation CO₂ emissions for Kirin Brewery (10,000 t) = CO₂ emissions of vehicles owned by each Kirin Logistics group company (t) (*1) x (total transportation distance of each Kirin Logistics Group company (km) / transportation distance of vehicles owned by each Kirin Logistics group company (km)) x (total transported volume for Kirin Brewery of each Kirin Logistics group company (t) / transported volume of each Kirin Logistics group company (t)) x 10⁻⁴ *1: CO₂ emissions of vehicles owned by each Kirin Logistics group company (t) = Fuel (diesel fuel) consumption (kl) x CO₂ emission factor (*2) *2: CO₂ emission factor is diesel fuel subject to the “fuel usage” category: 2.619 t-CO₂/kg
	Total nitrogen oxide emissions		t	∑ [nitrogen oxide emissions for each target facility (t)] Nitrogen oxide emissions for each target facility (t) = (1/number of nitrogen oxide measurements) x ∑ [nitrogen oxide concentration (ppm) at each site x dry emitted gas at each site (m³N/h) / fuel consumption per unit at the time of nitrogen oxide measurement (fuel consumption per hour)] x yearly fuel consumption x (46/22.4)
	(Logistics)		t	Total nitrogen oxide emitted in all transportation for Kirin Brewery (t) = nitrogen oxide emissions of vehicles owned by each Kirin Logistics group company (t) (*1) x (Total transportation distance of each Kirin Logistics Group company (km) / transportation distance of vehicles owned by each Kirin Logistics group company (km)) x (Total transported volume for Kirin Brewery of each Kirin Logistics group company (t) / total transported volume of each Kirin Logistics group company (t)) *1: Nitrogen oxide emissions of vehicles owned by each Kirin Logistics group company (t) = Fuel (diesel fuel) consumption (kl) x nitrogen oxide emission factor (*2) x 10³ *2: Nitrogen oxide emission factor is from Ministry of the Environment’s Environmental Activity Evaluation Program (March 2001) Light oil: 18.3kg/kg
	Total sulfur dioxide emissions		t	∑ [fuel consumption of each fossil fuel (l) x density (g/l) x sulfur content (wt%) / 100 x 64/32 (SO₂/S) x 10⁻³] However, emissions from fluidized bed boilers are calculated as follows: ∑ [fuel consumption at each site (kg) x solid content (wt%) / 100 x sulfur content (wt%) / 100 x 64/32 (SO₂/S) x 10⁻³]
	Chemical substance releases and transfers		t	Emissions and displacement of applicable chemical substances in offices that must report according to the “Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvement in Their Management (PRTR Law),” in (t)

## [4] Standards for environmental accounting

### 1. Environmental accounting concepts

We compute and disclose costs and impacts according to the concepts found in the Ministry of the Environment's "Environmental Accounting Guidelines (2005 Edition)."

### 2. Environmental protection cost (investment) concepts

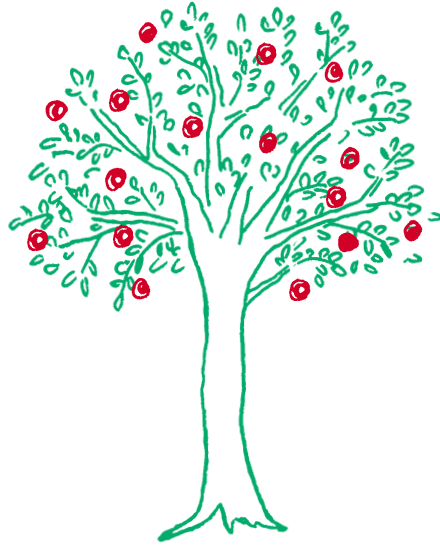
In breweries, we have instituted environmental protection departments that perform only environmental protection duties. We accept the capital outlay for these departments as 100% allocated to environmental protection and recognize that amount as environmental protection costs (investments).  
For departments other than environmental protection departments, we have specified "environmental facilities" which contribute directly to environmental protection and set 100% of the investments in these facilities as environmental protection costs (investments).

### 3. Environmental protection cost (expense) concepts

- Costs associated with maintenance of specified facilities
- Depreciation of specified facilities
- Cost of labor for the environmental protection division and activities such as environmental education, and cost of personnel assigned to tasks for which the objective is environmental protection.
- Research and development costs divided proportionately using simple rule of thumb based on subject of research.

### 4. Method for computing environmental impact intensity

This shows the environmental impact of creating 100 million yen of added value.  
Environmental impact intensity = amount of substances with environmental impact emitted and consumed ÷ added value  
Added value = operating income + labor costs + depreciation



**KIRIN**