TOSHIBA
Leading Innovation

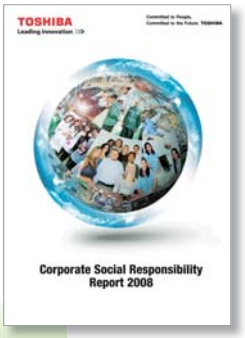
Committed to People,
Committed to the Future. TOSHIBA

Toshiba Group Environmental Report 2008

The Purpose and Editorial Policy of This Report

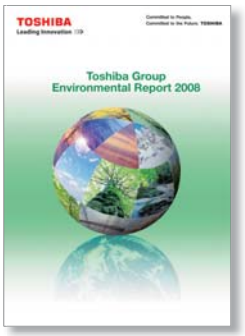
Toshiba Group had published annual environmental reports until fiscal year 2003, while since fiscal year 2004, we provided environmental information in our annual CSR reports instead. However, in response to the growing criticality of recent global environmental problems, we decided to deliver a booklet entitled “Environmental Report” to our stakeholders from fiscal year 2008, which focuses on detailed information concerning the environmental activities of Toshiba Group.
The information in this booklet is also disclosed on our website, to which we are adding further information as required.

Toshiba Group CSR Website and CSR Report 2008 booklet



(http://www.toshiba.co.jp/csr/en)
See our website and the booklet for details

Toshiba Group Environmental Website and Environmental Report 2008 booklet



(http://www.toshiba.co.jp/env/en)

Organizations covered

In principle, Toshiba Group (Toshiba Corporation and its 550 consolidated subsidiaries in Japan and overseas). For each item whose scope is not Toshiba Group, the individual scope is indicated.
✻ “Toshiba” in this report means Toshiba Corporation.

Reporting period

This report focuses on the results of activities in fiscal 2007 (from April 1, 2007 to March 31, 2008) but includes some activities continuing from before and more recent ones.

Publication

Current issue: November 2008
Next issue: Scheduled for August 2009

Reference Guidelines

Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G3)
✻ The GRI content index is available on the Toshiba website.
Environmental Reporting Guidelines (Fiscal Year 2007 Version), Ministry of the Environment of Japan
Environmental Accounting Guidelines 2005, Ministry of the Environment of Japan

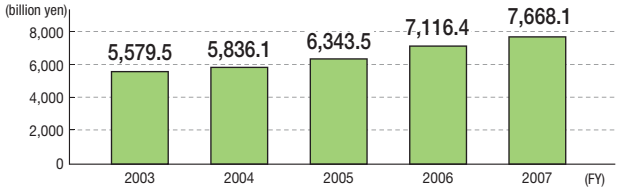
Contents

Company Overview (as of March 31, 2008)

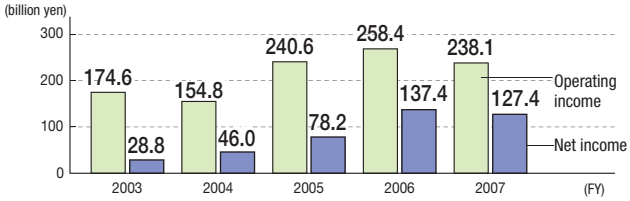
Company name	Toshiba Corporation
Headquarters address	1-1, Shibaura 1-chome, Minato-ku, Tokyo
Founded	July 1875
Paid-in capital	280.1 billion yen
Consolidated net sales	7,668.1 billion yen
Number of employees (consolidated)	197,718
CSR-related international charters/guidelines Toshiba endorses	United Nations Global Compact Global Reporting Initiative (GRI)
Number of shareholders	375,115
Number of shares issued	3,237,031,486 shares
Number of consolidated subsidiaries	550 (257 in Japan, 293 overseas)
Number of affiliates accounted for by the equity method	193
Stock exchange listings	Tokyo, Osaka, Nagoya, London

Financial Results (Consolidated)

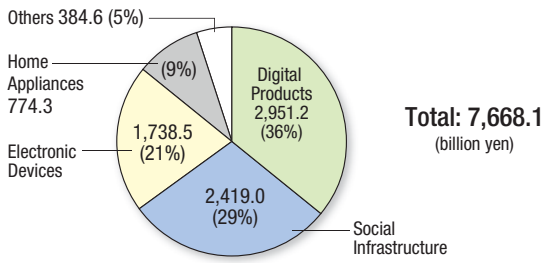
Net Sales



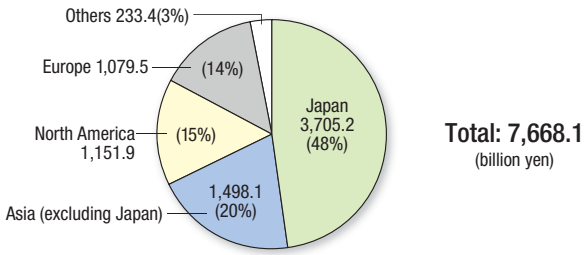
Operating Income & Net Income



Composition of Sales by Business Segment (FY2007)



Composition of Sales by Region (FY2007)



Principal Products/Services

"Toshiba delivers technology and products remarkable for their innovation and artistry - contributing to a safer, more comfortable, more productive life."

Electronic Devices

Toshiba's semiconductor business centers on three main stream products — discrete devices, system LSIs, and NAND flash memory. We also manufacture and sell high-resolution LCDs for mobile phones and mobile PCs. Development of fuel cells for mobile equipment is underway with a view to commercialization.

Social Infrastructure Systems

We support social infrastructure through our energy supply systems, including power systems and fuel cells, traffic control systems, security and automation systems for the financial and logistics industries, digital broadcasting systems, etc. We also offer a wide range of industrial systems and equipment, such as elevators and medical equipment.

Digital Products

Our principal digital products are visual equipment, such as LCD TVs with automatic picture adjustment according to the viewing environment, DVD recorders with large-capacity hard disk drives, and digital audio players supporting one-segment broadcasting, mobile phones for the broadband era, notebook PCs with superior environmental performance, and POS systems for stores.

Home Appliances

We manufacture and sell home appliances, such as refrigerators, washing machines, vacuum cleaners, and rice cookers, as well as energy-saving air conditioners and lighting equipment. Other consumer-related products include automated vending machines.

Outline of Environmental Impacts

Since Toshiba Group's products and services range from home appliances and information and communications equipment to semiconductor devices, electronic components and heavy electrical apparatus, their environmental impacts vary. By clarifying and analyzing the environmental impacts throughout the Group, we are working to enhance eco-efficiency.

The figures below show inputs of energy, water and chemical substances, and outputs of environmental pollutants and waste discharged to water and air. Also shown are the material inputs and the amount of major products shipped. Whereas the data for fiscal 2004 covered 104 Toshiba Group companies, fiscal 2005 data covers

INPUT

Materials*1			2,502 (thousand t)
Iron	983	Other metals	24
Aluminum	132	Plastics	276
Copper	120	Rubber	20
Nickel	28	Glass	74
Chromium	14	Paper	56
Manganese	13	Others	762

Energy			58,097 (TJ)*2
Electricity	49,983	Kerosene oil	68
City gas	4,161	Light oil	962
LPG	1,132	Others	1,092
Heavy oil A	699		

Water			56,908 (thousand m³)
Industrial water	36,461	Groundwater	12,174
City water	8,272	Other water	1

Chemical substances	(t)
Amount handled	66,748

Energy (Product logistics in Japan)	(kℓ)
Gasoline	214
Light oil	26,530

Energy	(TJ)
Electricity	193,064*3

*3 Excluding industrial systems (Power generation plant, etc.)

Weight of end-of-use products recovered (Weight of items processed)			91,806 (t)
TVs	22,056	PCs	1,476
Refrigerators	24,568	Medical equipment	5,750
Washing machines	18,481	Others	10,897
Air conditioners	8,577		

Business Processes

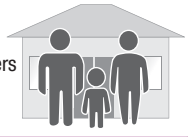
R&D and Design

Procurement

Manufacturing

Distribution and Sales

Use



Recovery and Recycling

OUTPUT

Waste	
Total amount generated	281,518
Amount recycled	243,526

Greenhouse gases	
CO_2	260
PFC	66
HFC	6

Amount of water reused	6,106 (thousand m³)

Environmental impacts on water	(thousand m³)
Total amount of water discharged	49,578
Biochemical oxygen demand (BOD)	378
Chemical oxygen demand (COD)	428
Suspensoid (SS)	220

Chemical substances	
Amount released	2,286

Greenhouse gases (Product logistics in Japan) (ten thousand t-CO_2)	
CO_2	7.6

Greenhouse gases (ten thousand t-CO_2)	
CO_2	768*4

*4 Excluding power generation equipment

Weight recycled			
TVs	17,574	PCs	
Refrigerators	17,125	Medical equipment	
Washing machines	14,561	Others	
Air conditioners	7,200		

*1
Material inputs are calculated based on the Estimation method for Material Inputs using Input- Output Table (EMIOT), a method developed by Toshiba. EMIOT uses ratios of materials, which are prepared based on the inputoutput table, to calculate material inputs. A characteristic is that input-output analysis is applied only to the flow of resources from upstream to downstream and ratios of materials by industrial sector are entered in a database. Using this method, it is possible to calculate weights of input resources by resource type from the data on procurement (monetary value) by resource category, which is gathered by procurement organizations. So, data can be gathered not only on direct materials but also on indirect materials. Previously, it was difficult to clarify the amounts of resources in parts made of compound materials or the amounts of resources associated with services. EMIOT has enabled clarification of the amounts of resource inputs by resource type for such materials.

*2
TJ = 10^{12}J
J (joule) is a unit of energy measuring mechanical work, heat and electricity.
1 J = about 0.239 calorie

Toshiba Corp. and 368 consolidated subsidiaries. As to material inputs, we grasp the amount of rare metals like Nickel and Chromium. Recognizing that further improvement in data accuracy is desirable, we are addressing this issue. We intend to continue collection and analysis of data that can be of help to us in our efforts to reduce environmental impacts.

	(t)
Amount for final disposal	12,748

Amount of major products shipped 502,385t

351 (ten thousand t-CO_2)	
SF_6	18
Others	1

Environmental impacts on air (t)	
SOx	284
NOx	1,285
Particles of Soot	49

Excluding Sigma Power Ariake and Sigma Power Tsuchiura

Amount of water recycled 10,145 (thousand m³)

	(t)		(t)
Total nitrogen	253	Boron	3
Total phosphorous	13	Fluorine	97
N-hexane (mineral oil, animal and vegetable oil and fat)	43	Nitrate-nitrogen and nitrite-nitrogen	127
Dissolved iron	2		

	(t)
Amount transferred	6,752

Environmental impacts on air (t)	
SOx	0.4
NOx	203
Particles of Soot	12

71,268 (t)	
	955
	4,951
	8,902

Waste			20,538 (t)
TVs	4,482	PCs	521
Refrigerators	7,443	Medical equipment	799
Washing machines	3,920	Others	1,996
Air conditioners	1,377		

Indicates a flow of materials shipped as products, recycled and discharged as waste.

Aiming to address global environmental issues and contribute to reducing environmental impacts generated from our production activities, the Toshiba Group has been promoting environmental management focusing on the following key areas:

Energy

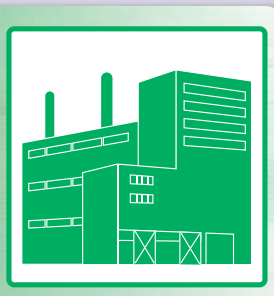
We will supply a variety of power generation facilities and equipment, which will contribute to the stable supply of optimally-mixed energies and the prevention of global warming.
(See pp. 12-15 for the details)

Eco Products

We will develop and provide Eco Products, which help reduce global environmental impacts, via our unique "Factor" indicator, a framework that comprehensively evaluates the values and environmental impacts of products.
(See pp. 16-31 for the details)

Eco Process

We will strictly enforce environmental management in our factories and other facilities to minimize the environmental impacts generated from our business and production.
(See pp. 32-43 for the details)



Eco Program

We will promote activities focusing on communications and solutions, to ensure the safety of our stakeholders.
(See pp. 44-53 for the details)

Environmental Management

We are committed to strictly enforcing environmental management in Toshiba Group to promote the above four key areas: Energy, Eco Products, Eco Process and Eco program.
(See pp. 54-63 for the details)

Executive Commitment

Toshiba Group is committed to promoting environmental management that helps people lead rich lifestyles in harmony with the Earth.

Atsutoshi Nishida
President and CEO
Toshiba Corporation

Introduction

In 1875 the history of Toshiba began with the spirit "Creating what makes people happy, and what helps people of Mr. Hisashige Tanaka, our company founder." Having inherited this spirit, we have been providing the new products to the world which support people's lives, including Japan's first incandescent lamp. When I assumed the presidency in 2005, the year in which the company marked its 130th anniversary and looking back over our history of developing numerous pioneering products, both in Japan and the world, I asked myself what the company needed to become at that time and the answer was a "corporate citizen of planet Earth."

As a global company needed by people, we shall recognize and respect the differences in culture, history and practices among global countries and regions, and be committed to taking a leading role in establishing a better global environment. Following further review of our ongoing environmental management initiative aiming to be a corporate citizen of planet Earth, we developed the "Environmental Vision 2050" in November 2007, which describes the ideal situation that Toshiba Group envisages based on our environmental management.

Environmental Vision 2050

Over the past century, while various technologies have been developed to make our lives more convenient, the need for us to act on global environmental issues, including global warming, has become ever more acute. However, if we are committed to addressing such problems with consistent innovations, we will definitely be able to resolve these global environmental issues as well as creating new values. Based on this belief, we envisaged an ideal situation of "a world with all people leading rich lifestyles in harmony with the Earth," and described this goal and how we would achieve it in the "Environmental Vision 2050."

In order to create rich lifestyles in a world with an ever-increasing population, especially in developing countries, it is crucial to define the ideal situation as a goal, determine how to attain this goal, and completely accomplish what is to be done now. The key measures are to address the prevention of global warming, efficient use of resources and control of chemicals in order to ensure coexistence with the Earth. Based on these underlying principles, we are further committed to delivering technology and products with remarkable innovation and artistry - contributing to a safer, more comfortable, and more productive life, in order to achieve our Environmental Vision 2050.

To Mitigate Climate Change

The 4th Report of the Intergovernmental Panel on Climate Change (IPCC) had an explosive impact on the world. Although the importance of greenhouse gas emissions reduction had been recognized, as shown by the resolution of the Kyoto Protocol in 1997, this report marked a crucial turning point that changed the immediate criticality of global warming to a truly common and globally shared understanding.

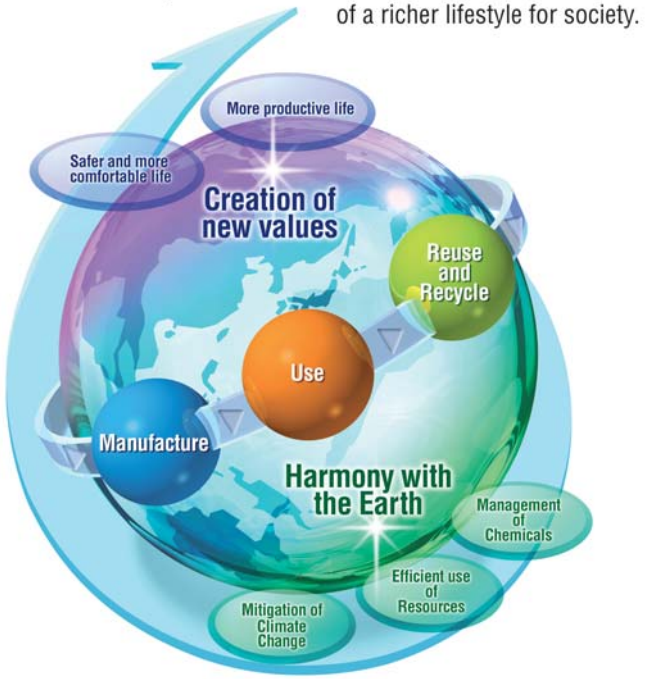
Toshiba Group is one of the few manufacturers whose business stretches from generating energy such as power generation systems, to using energy such as industry and social systems and products for households. We have been contributing to the stable supply of reliable energy and mitigation of climate change by offering nuclear power generation equipment which does not emit CO_2 during generation, super ultrahigh-temperature steam turbine systems with advanced efficiency, geothermal power plants using renewable energy, and other electricity generation related equipment; while providing Eco-Products to the world including semiconductors which support highly efficient devices, traffic information systems to reduce energy loss, a wide range of highly efficient air-conditioning equipment for businesses as well as households, and highly efficient LED lights. As the responsibility of a company which developed Japan's first incandescent lamp, in order to contribute to mitigation of climate change, we decided to terminate the production of regular incandescent lamps by 2010.

Furthermore, in our manufacturing operations, we have been rigorously addressing global warming prevention, not only in the semiconductor business with high energy consumption and greenhouse gas emissions, but also in offices and product distribution. We are striving to further enhance and globally apply activities to reduce greenhouse gas emissions to all processes within the enterprise, including the proactive introduction of highly efficient equipment and managerial improvement through various forms of data collection and utilization.

By developing revolutionary technologies through innovations and pursuing continuous efficiency improvements, we are aiming to contribute to CO_2 reduction by 120 million tons per year in 2025, which would otherwise be generated from the products provided by Toshiba Group. This amount is equivalent to the CO_2 emissions in Tokyo during two years. If we can help the world change towards a more advanced status of mitigation of climate change by providing such technologies, we will be fulfilling a great role as a corporate citizen of planet earth.

Environmental Vision 2050

Toshiba Group practices environmental management that promotes harmony with the Earth, contributing to the creation of a richer lifestyle for society.



For the Next Generations

Scientific forecasts on global warming remain somewhat unclear, but it is certain that the CO_2 generated by human beings is much larger than the amount the Earth can absorb, and that we should thus accelerate our actions immediately. Toshiba Group prioritizes the commitment to environmental issues as part of our business operations. Envisaging the ideal situation of people leading rich lifestyles in harmony with the Earth by 2050, we will strive to further promote our environmental management for the sake of our next generations.

Environmental Vision 2050 - People leading rich lifestyles in harmony with the Earth -

As a Corporate Citizen of Planet Earth

The Toshiba Group aims to advance our environmental commitment more widely and deeply. With this in mind, we have been pursuing wide-ranging environmental protection activities. As part of these practices, we renewed the Voluntary Environmental Plan (voluntary action plan) in 2005, in which we set the goal of doubling the Overall Eco-efficiency, an indicator to integrate the evaluation of our individual activities as the overall efficiency of the Toshiba Group, in fiscal 2010 compared to fiscal 2000.
"A corporate citizen of planet Earth" —represents the CSR management of the Toshiba Group. What does it mean to promote environmental management as a corporate citizen of planet earth? In this rapidly changing world, we feel the need for a long term strategy, which focuses on the distant future.

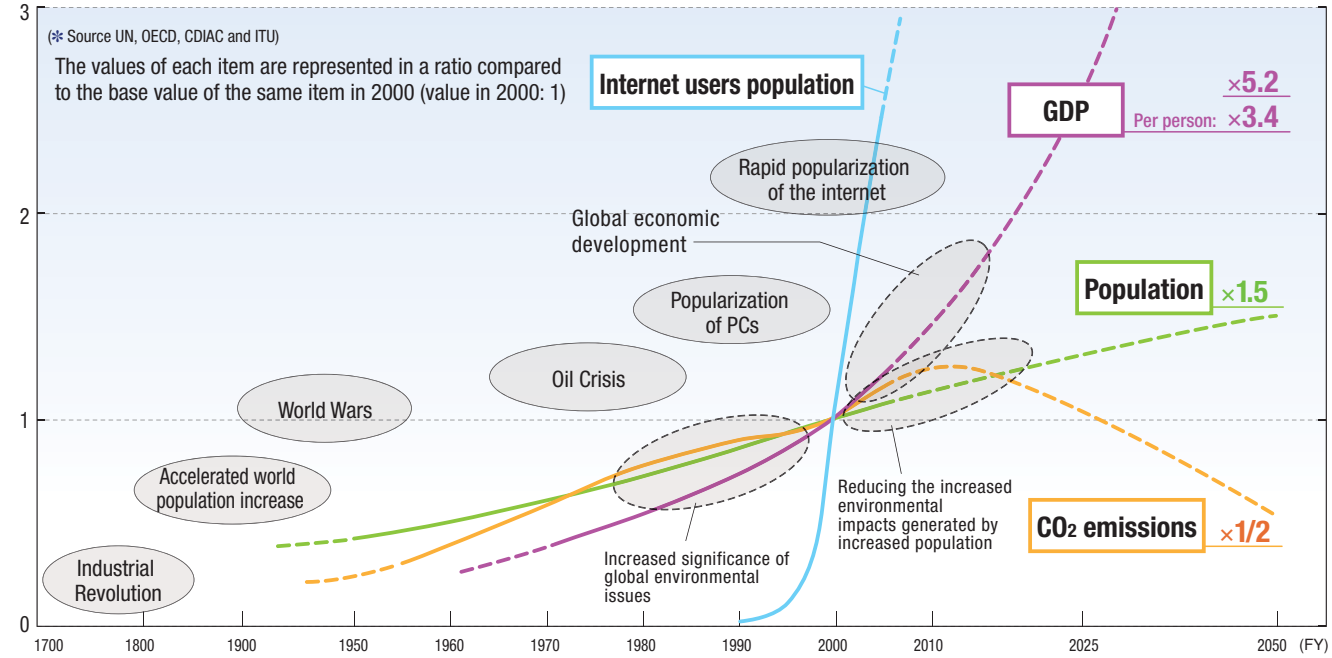
Focusing on 2050

The Industrial Revolution from the 18th to 19th centuries, heralded a period of rapid advancement in human history. As if in synchronization with this evolution, the global population also rocketed, while after the end of World War II, the global economy gained yet more momentum. Although the unstable supply and soaring prices of oil invited economic turmoil in the 1970s, the global economy has been steadily expanding since the end of that period. From the beginning of the 1990s, computer technologies have rapidly developed, and have now pervaded every facet of our society and become essential devices for our daily lives. When the internet emerged, which shortens the distance between any locations, this drastically changed our lifestyles, which have continued advancing on a daily basis every since. It took forty years for the world population to double and twenty years for the world GDP to double, while the population of internet users has doubled, at a staggering rate, after no more than several years.
On the other hand, we understand that global environmental issues with growing criticality have some major characteristics. One of these is the fact that it takes considerable time from the start of an initiative to its purpose being achieved. For example, although ozone layer depletion was discovered more than twenty years ago and actions have been taken to resolve this problem, its impacts still remain in the form of ozone holes and the resolution of this issue is said to remain several decades away.
As suggested by the fact that our choice of power generation methods represents one of the important measures for mitigation of climate change, the way in which we construct the current social infrastructure is important as a measure for the future. In this respect, we place commitment to the environment as our crucial responsibility for the future of our children. Based on these insights, we decided to envisage an ideal situation for our planet in 2050.

People leading rich lifestyles in harmony with the Earth

What world we should envision? We believe, in that world, that not only global environmental issues including climate change

Background of global environmental issues and issues to be resolved by 2050

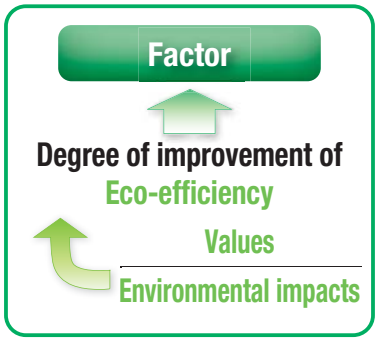


will be resolved, but also that all people should lead rich lifestyles. We defined these images in the Environmental Vision 2050, which targets the ideal situation of "People leading rich lifestyles in harmony with the Earth." In order to support all three parties, namely developed, emerging and developing countries, and the ever-increasing number of people leading rich lifestyles, we shall set goals for 2050 and based on these, develop action plans which must be attained in specific phases to ensure the progress of these environmental initiatives. These responsibilities represent no more or less than the role to be fulfilled by our company, which promotes environmental management as a corporate citizen of planet Earth.

Setting goals using Factor (degree of improvement of eco-efficiency)

Can't we measure environmental impacts with an indicator which evaluates environmental impacts reduction and the creation of enriched value? Forecasting the 2050 status from now and estimating the global level impact such as climate change is very difficult. However, we believe that setting goals, even based on uncertain factors, is very significant.

For these goal settings, we use "Factor," an indicator framework with which we can measure the degree of improvement of eco-efficiency with the combined index of environmental impacts mitigation and creation of enriched value. For example, if the environmental impacts reduction doubles (the environmental impacts are reduced by half), the Factor is set to "2," and if the created value doubles, the Factor is also set to "2." If both are achieved at the same time, the Factor becomes 2 × 2=4.



Creating enriched values while minimizing environmental impacts

The global population has expanded 2.4 fold in the past fifty years. Greenhouse gases generated from our activities have also significantly increased, which has accelerated the climate change problem. Furthermore, the global population has been rocketing ever-higher, and is set to reach around nine billion by some estimates in 2050, representing a population 1.5 times larger than that in 2000. As the activities of the growing population increase, the environmental impacts of related activities will follow suit.

On the other hand, we can further enrich our lives. There are problems of disparities, even in supposedly developed countries, and we also hope to provide enriched lifestyles to emerging and developing countries as well. To achieve these purposes, we should create and improve much more richness and values.

Achieving Factor 10 by 2050

The Factor indicator began in 1991 when Dr. Weizsäcker of the Wuppertal Institute in German (as of that time) advocated the "Factor 4," a level achieved when life richness doubled and resource consumption was halved, in order to ensure sustainable development. With global warming issues becoming increasingly critical and economic disparities widening, we identified the need for higher goals in order to realize lifestyles in harmony with people, and decided that we should achieve at least Factor 10.

From another perspective, there are several major issues to be resolved to achieve the ideal situation of people leading rich lifestyles in harmony with the Earth by 2050, and these specific issues and evaluation results based on the relevant indicators are shown below:

1) Factors we consider as environmental impacts include greenhouse gases, resources and chemical substances. Among these, the reduction of CO_2 emissions by half in 2050 is a common global goal for the mitigation of climate change, the top agenda item. To achieve this goal, we must double the eco-efficiency.

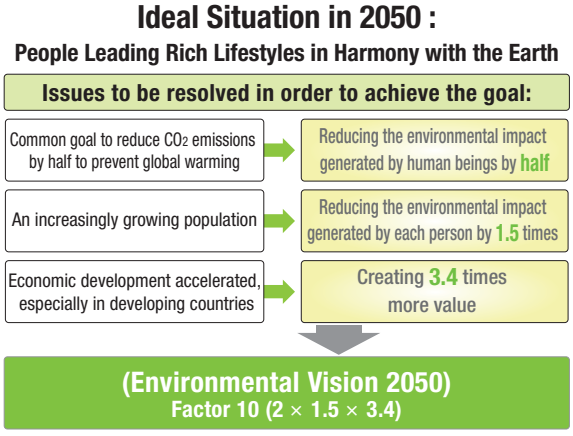
2) In addition, to reduce the added environmental impacts generated by the 1.5 fold population increased during this period to 2050, eco-efficiency must also be increased to an equivalent extent.

3) Based on the estimate that the average world GDP per person will rise to 3.4 fold in 2050, thanks to economic development, especially in developing countries, which will enrich people's lifestyles, we should create new values to also boost eco-efficiency 3.4 times.

Resolving these issues will achieve Factor 10, namely a tenfold improvement in eco-efficiency (2 × 1.5 × 3.4).

With the belief that a higher goal than Factor 4 would be required, and having examined the ideal situation in 2050 and evaluated this goal with relevant indicators, we set Factor 10 as the goal to be attained by 2050.

● **Achieving Factor 10 by 2050**



Environmental Vision 2050 - People leading rich lifestyles in harmony with the Earth -

Aiming to achieve Factor 10

We have set Factor 10 as our Environmental Vision 2050 in order to realize the ideal situation of people leading rich lifestyles in harmony with the Earth. It is important to set the ultimate ideal situation, but practically speaking, only ongoing daily activities can resolve the problem. Toshiba Group set out the Voluntary Environmental Plan, a specific voluntary action plan for products and business processes in order to promote our environmental activities (see pp. 56-57). We also include the results of this Voluntary Environmental Plan as overall eco-efficiency in the Factor indicator. Calculating the difference between the base value of fiscal 2000 and Factor 10, the goal to be achieved in 2050, we set Factor 2 as the goal for fiscal 2010, and Factor 2.3 for fiscal 2012.

Contribution to mitigation of climate change

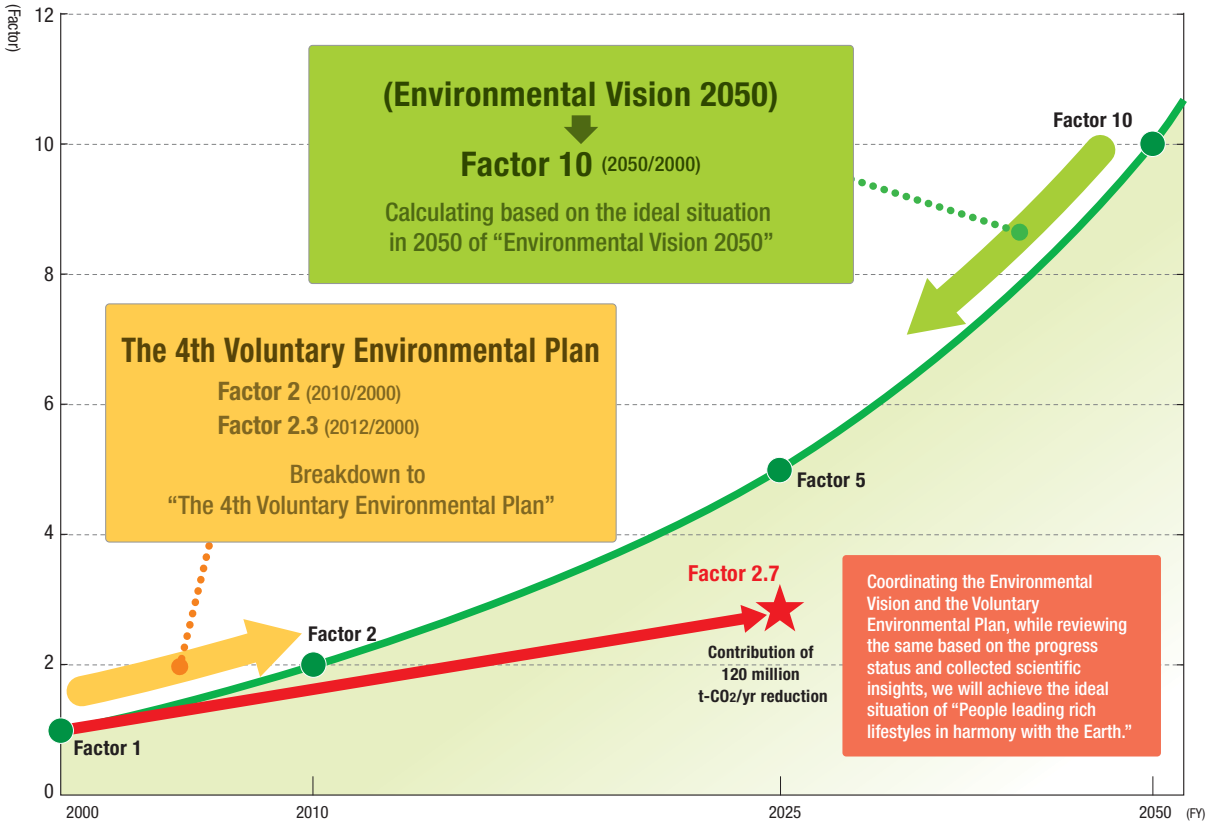
Toshiba Group's Factor indicator comprehensively evaluates not only greenhouse gases, such as CO_2, but also various other kinds of environmental impacts generated from resource consumption, such as iron, and waste disposals throughout the life cycle of products. In relation to the climate change among these environmental impacts, which currently attracts most attention, citing the example of the CO_2 reduction contribution with our products, we have evaluated the extent to which eco-efficiency will be improved by 2025 with our contribution to CO_2 emission reduction of about 120 million t-CO_2/yr through our dual approaches of Energy and Eco Products.

Comparing the base value calculated from dividing the CO_2 amounts released throughout the life cycle of a product by its tenure years of use, with the estimated amounts of CO_2 emission from technologies available in 2000, we calculated the improvement ratio of CO_2 environmental impacts as a Factor (the environmental impact reduction factor). Estimating the total of CO_2 amounts released by electricity generated from the energy supply equipment and the Eco Products provided by our company in 2025, we obtained an environmental impacts reduction factor of 2.7. In this case, by improving the value of by 1.8 times, we were able to attain the Factor 5 (2.7 × 1.8) goal for 2025. This contribution of about 120 million t-CO_2/yr reduction may also represent a milestone for the Environmental Vision 2050.

Achieving Environmental Vision 2050

Our Environmental Vision 2050 targets at 2050. Envisioning an image more than forty years from now may seem unrealistic. However, we believe that in order to address global environmental issues, it is important to take actions with a focus on the future, even if it may remain uncertain. By reviewing the current status in reference to the progress of the Voluntary Environmental Plan and the collected scientific insights, as well as continuously enhancing our activities, the Toshiba Group will promote environmental management to achieve the ideal situation of "People leading rich lifestyles in harmony with the Earth."

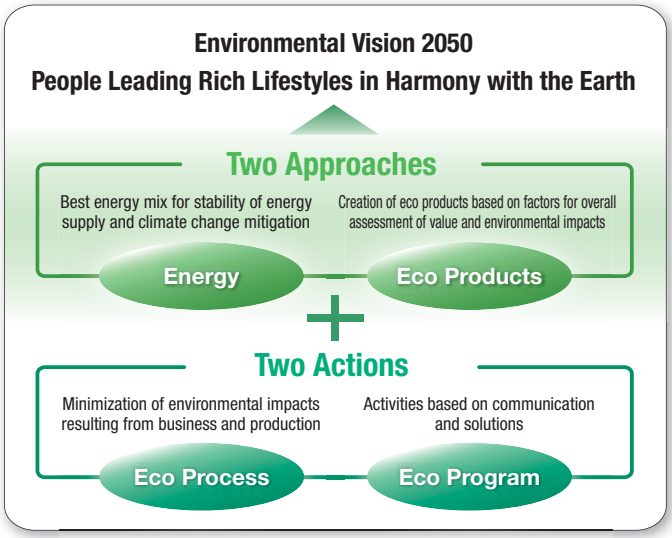
● Aiming to achieve Factor 10



Two approaches and two supporting actions

As specific measures to achieve the Environmental Vision 2050, the Toshiba Group has been pursuing two complementary approaches: while the "Energy Approach" emphasizes the stable supply of optimally-mixed energies and the reduction of CO_2 emissions, the "Eco Products Approach" focuses on creating new values in harmony with the Earth through high eco-efficiency products.

We are committed to attaining the Environmental Vision 2050 via multi-directional approaches, including actions on two standpoints: while the "Eco Process" seeks to minimize environmental impacts throughout our business and production processes, the "Eco Program" is a concerted effort to address environmental issues in collaboration with our stakeholders.



Toshiba is committed to achieving the "Environmental Vision 2050" through two approaches and two actions.

Achieving world-leading CO_2 emissions reduction through the Energy Approach

By leveraging its capabilities as a manufacturer of diverse power generation systems, the Toshiba Group is striving to achieve the best energy mix through the well-balanced utilization of these systems. This means pursuing innovation not only in conventional energy — nuclear, thermal and hydroelectric power generation, but also in the new energy fields, such as distributed power generation and renewable energies.

In the conventional energy field, we are focusing on themes like the safe and efficient nuclear power generation as well as zero CO_2 emissions from thermal power systems via CO_2 capture and storage. In the field of new energy, we are focusing on renewable energy utilization such as geothermal and wind power generation as well as the widespread use of home-use fuel cells. Also, for power distribution networks, we are working on zero power transmission loss technologies.

Through these specific Energy Approaches, it is estimated that the CO_2 emissions reduction benefits of the Toshiba Group are 4.2 million tons in fiscal 2006. We intend to increase this figure to 14 million tons in fiscal 2010 and to a massive 82 million tons in fiscal 2025.

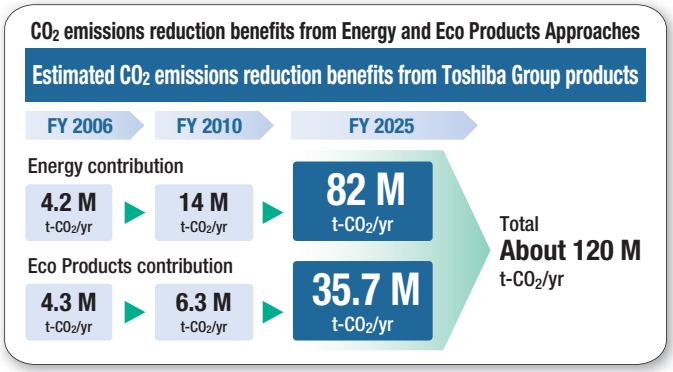
✻ Related article on pp. 12-15

Achieving both environmental and economic efficiency through the Eco Products Approach

In its drive to create eco products that achieve two targets — the "creation of new value" and remaining "in harmony with the Earth" — the Toshiba Group applies Factor T, a unique eco-efficiency indicator for the overall evaluation of a "product's value" and its "environmental impacts". Numerous products with excellent functions and high performance as well as impressive environmental credentials have been created based on Factor T.

If all products shipped by the Toshiba Group in fiscal 2006 had replaced all those shipped in fiscal 2000, the reduced environmental impacts, calculated in the form of CO_2 emissions reduction benefits throughout product life cycles, would amount to 4.3 million tons per year. Through ceaseless innovation, we aim to slash CO_2 emissions by 6.3 million tons in fiscal 2010 and by 35.7 million tons in fiscal 2025.

✻ Related article on pp. 16-31



Targeting a t-CO_2/yr reduction of around 120 million by 2025 through two approaches: Energy and Eco Products

Aiming to reduce the environmental impacts in the Eco Process

The Eco Process in pursuit of an environmentally conscious factory is one of two actions that support the Energy Approach and the Eco Products Approach under the overarching theme of the Environmental Vision 2050.

The Toshiba Group's target was initially a 25% reduction in energy-originated CO_2 emissions in fiscal 2010 compared with fiscal 1990 based on the rate to net production output. Following the achievement of a 42% reduction in fiscal 2007, the Toshiba Group revised the target for fiscal 2010 to a 45% reduction and has set a target for fiscal 2012 of a 47% reduction. The Toshiba Group will promote investment in energy-saving initiatives, the pursuit of energy-saving clean rooms, and innovation in production processes in order to minimize CO_2 emissions.

✻ Related article on pp. 32-43

Promoting Eco Programs through communications and solutions

A wide range of environmental activities are indispensable in addition to Eco Process. These include communications with stakeholders, such as providing environment-related information and engaging in constructive dialogue. Toshiba Group also provides environmental solutions, including technologies and tools for analyzing and assessing the environmental impacts of products throughout their life cycles, such as comprehensive assessments of environmental impacts and control of chemical substances contained in our products.

✻ Related article on pp. 44-53

Energy

Providing diverse power generation systems via the optimal energy combination for a stable energy

As an industry-leading company in power systems, Toshiba Group engages in new technological development that helps both reduce the environmental impacts associated with power generation and the stable power supply. During nuclear power generation, the evaluation of which has recently recommenced as an effective power generation system to mitigate climate change, we have been striving to ensure the safety and effectiveness of the same as a leading global manufacturer in the field. While working to reduce environmental impacts through the enhanced efficiency of thermal and hydroelectric power generation, we are also striving to encourage the widespread use of power generation based on natural energy, such as hydroelectric and geothermal power generation, and to commercialize fuel cells.

Targeting Reduced CO_2 Emissions through the Promotion of Safe and Secure Nuclear Power Generation

To Achieve Two Imperatives Simultaneously

The global energy demand, which is continuing to rise, is expected to increase to about 1.6 times the current level by the year 2030. Due to issues including the depletion of natural resources and the climate change, however, we can no longer rely only on thermal power generation alone, which consumes vast amounts of fossil fuels. Moreover, it remains undeniably difficult at present for solar and wind power forms of generation, which are anticipated as new energy sources, to become key sources of electric energy in terms of their economic efficiency and supply stability.

In response, nuclear power generation has been re-evaluated as a clean energy source that can achieve both stated imperatives, namely the provision of a stable energy supply and the mitigation of climate change. Accordingly, as various countries that were previously inclined against nuclear power generation have started opting to build new nuclear power plants, more than 150 new nuclear power plants are likely to be constructed by 2030. In the Framework for Nuclear Energy Policy, announced in 2005, the Japanese government has also decided to pursue a policy to promote nuclear power as one of the pillars for electric power supply in the years ahead.

As a World-leading Manufacturer of Nuclear Power Plants

Toshiba, which has been proceeding with nuclear power generation over many years, has concentrated its management resources on the nuclear power business, following a favorable evaluation afforded again to the nuclear power generation. In 2006, Toshiba Group acquired the Westinghouse Electric Corp., a leading company in the nuclear energy industry in the United States, becoming a global leader in the industry in terms of its ability to provide two mainstream types of nuclear plants using BWR (boiling-water reactor) or PWR (pressurized-water reactor) on a global scale. The Toshiba Group has a track record of building 112 nuclear power plants in ten countries worldwide, whereas it has already received orders to construct 11 new plants in the United States, China, etc. and is now expected to accept other orders to build more than 39 plants by 2015. In order to sincerely address these needs for new construction, Toshiba strives to strengthen and replenish its manufacturing framework and engineering functions.

Also, to ensure the safety and soundness of existing power plants, Toshiba is striving to extend their service life by emphasizing appropriate preventive maintenance measures. For example, Toshiba has earned a high reputation among its customers for technological development that drastically enhances the efficiency of inspection and maintenance for nuclear power plants' reactors, fully leveraging its state-of-the-art ultrasonic and laser technology.

Contributing to a Stable Energy Supply and Mitigation of Climate Change

In promoting the new construction plans, we are not only engaged in new plant construction projects but also aggressively involved in developing a next-generation light-water reactor that achieves both safety and economy. We are taking the lead in such projects through our design technology by developing equipment combined with a more reliable safety device, etc.

We are also enthusiastically engaging in the development of a 4S plant system*, the fuel of which need not be changed for 30 years and which incorporates sophisticated non-proliferation. The 4S plant system is expected to be utilized worldwide as a distributed power supply, particularly in insular countries or remote areas where it is difficult to install power transmission systems in good working order. For this reason, Toshiba has started applying for approvals and permits for the same in the United States in cooperation with the Central Research Institute of Electric Power Industry in Japan for its early introduction.

Furthermore, in order to proceed with the development of a next-generation fast reactor, including the 4S reactor, in February 2008 Toshiba constructed one of the largest laboratories in the industry in Japan in order to verify its sodium technology at the Yokohama Complex. Moreover, in order to deal with the hydrogen-oriented society set to arrive in years to come, Toshiba is currently studying the commercialization of a hydrogen production method using nuclear power generation, while also intending to participate in the International Thermonuclear Experimental Reactor (ITER) Program in the quest to secure clean energy resources in future.

Toshiba, as the leading company in the nuclear power industry capable of addressing every need of nuclear power generation, thanks to its state-of-the-art technology and proven track record, has contributed to a stable energy supply as well as to the mitigation of climate change.

*4S: It is an abbreviation for Super-Safe, Small and Simple. In particular, it refers to small-sized fast reactors, which offers high levels of safety.

Advanced BWR (ABWR)

4S plant system

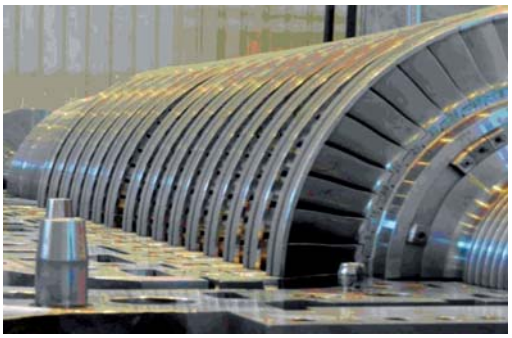
Reduction in CO_2 Emissions through Improved Performance of Thermal Power Generation

While thermal power generation supports 70% or more of the global power supply, it emits more CO_2 than other power generation systems because it uses fossil fuels. To reduce this CO_2 emission per unit of electricity generated, Toshiba Group is working on improvements in power generation efficiency at thermal power plants from the following two perspectives; enhancement of structural technology and the development of a next-generation power generation system.

To enhance structural technology, the latest fluid/thermal analysis technology and structural analysis technology, as well as a newly constructed steam turbine test facility simulating actual operating conditions, are utilized in order to proceed with the optimization of the power turbines' blade shape as well as enhanced performance and reliability of power generators.

To develop the next-generation power generation system, the major theme involves dramatically improving the efficiency of electric power generation by increasing the temperatures of the steam and gas used to drive the turbines. To this end, we have strived to develop ultra-high-temperature materials, cooling technology, etc., and forged ahead with the research and development into a new ultra high temperature thermal power generation system, which is capable of changing the steam temperature of steam turbines to a level of 700°C as opposed to the conventional 600°C. Furthermore, in the combined cycle thermal power generation, featuring a combination of gas and steam turbines, we have collaborated with the General Electric Company to develop a power generation system in which the gas burning temperature is increased to 1,500°C from the conventional 1,300°C, succeeding in significantly improving the efficiency of electric power generation.

In addition, we have also embarked on research and development into a system that separates captures and immobilizes CO_2 from the combustion waste gas generated by thermal power plants. We endeavor to achieve zero-emission thermal power generation, including the development of highly efficient technology.



A blade lattice design is adopted, which reflects the latest fluid/structure development results of high-pressure turbines.

A future thermal power plant featuring CO_2 separation and capture functions (Example of coal fired thermal power generation)

Renewable Hydroelectric Power Generation

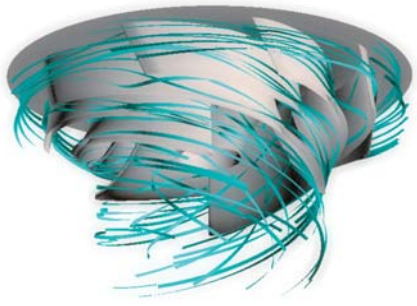
Of all the power generation systems using renewable energy, it could be said that hydroelectric power generation excels in terms of the cost and stability of power generation, making it an energy supply system that allows many countries to effectively utilize the water resources available in their own territories. Hydroelectric power generation is also important in terms of the energy mix; based on which energy resources are used in a balanced manner.

Toshiba Group, as a hydroelectric power equipment maker, strives to improve the performance of water wheels and power generators and provide highly-efficient and eco-friendly hydraulic power generation systems on a widespread basis, both inside and outside the country.

Pumped-storage generation, which is one of the forms of hydraulic power generation, uses surplus nuclear power electricity and high-capacity thermal power generation overnight, pumps up water in a lower reservoir to an upper reservoir located several hundred meters above for storage, and uses such water to generate power during daytime peak hours in an effort to meet peak load conditions. Consequently, technologies for a single unit of pump turbine, which functions as a water wheel and pump, a single generator motor unit, which functions as a generator and motor, and a control unit for the same, etc. are required; nonetheless Toshiba has carried out research and development for them and currently upgraded them to the highest level in the world.

In recent years, it has also increased the number of blades to exceed that of conventional models, and adopted a splitter runner system, featuring alternately short and long blades for the water wheel and pump ahead of other global manufacturers, resulting in enhanced efficiency of power generation and water pumping operations. Furthermore, Toshiba has proceeded to develop the fish-friendly technology required in the United States, by examining fish-friendly water wheel construction, etc.

A highly-efficient splitter runner



Flow analysis of the splitter runner

Reduction in CO_2 Emissions through Power Distribution Networks

Reduction in Transmission Loss Via Extra-high Voltage Power Transmission

Presently, electric power transmission faces a long list of difficult problems, including long-distance bulk power transmission and highly-efficient power transmission, both of which are associated with more power plants located in remote areas, energy/resource saving, CO_2 emission reduction, environmental harmony and economic efficiency, etc. As such, many countries have started focusing on the UHV (Ultra High Voltage) transmission system which can address these challenges. It has been recognized that this UHV power transmission (1,000 kV) system has many more advantages, such as a reduction in CO_2 emissions due to decrease in transmission loss, over conventional 500-kV transmission systems. It can reduce CO_2 emissions to about three-eighths of the level of conventional systems with an identical load capacity.

However, in commercializing the UHV transmission system, there are a number of technological challenges to be overcome, such as downsizing of substations and transmission lines and ensuring reliable insulation, which differ from those applicable to conventional 500-kv-or-less transmission systems. Even in Japan, which was the first in the world to complete a 1,000-kV-design transmission line in 1999, 500-kV power transmission systems are still used under existing conditions.

To meet these challenges, Toshiba, as a manufacturer of electrical energy transformation equipment for UHV, has commercialized a host of electrical energy transformation equipment via repeated development verification, while also identifying the wide-ranging responsibilities required for an electrical energy transformation system featuring a UHV power system. In China, UHV power transmission has been commercialized earlier than elsewhere, due to the licensing of Toshiba's proprietary technology for UHV electrical energy transformation equipment. Many countries anticipate that such commercialization will be successful.

Transmission line for UHV (1,000kV) of TEPCO

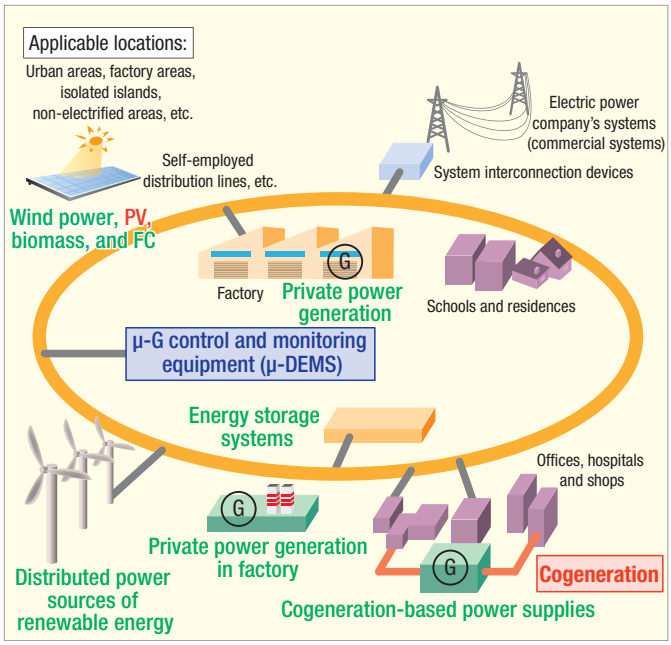
Electric Power Supply and Demand Control Technology for Micro Grid

There has been scrutiny of the construction of small-sized power systems, known as "micro grids", which will operate as power supply systems supporting the introduction of power generation based on natural energy, such as solar and wind power generation. However these micro grids face the problem, in that their output of power generation fluctuates based on climate conditions as more power generation based on natural energy is introduced, which, in turn, tends to disrupt the power demand-and-supply balance. If the latter is disrupted within the micro grid, the transmission of power to and from external power systems fluctuates, which eventually affects the electric power quality of the voltage and frequency, etc. of external systems. For this reason, it is considered imperative that the output fluctuations of power generation based on natural energy be absorbed within the micro grid in order to maintain the power system in good working order.

To accomplish this, the Toshiba Group has developed electric power supply and demand control technology which absorbs the power fluctuations generated in the micro grid and minimizes the influence on external systems, to ensure that support is provided for the dissemination and promotion of power generation based on natural energy.

In short, this control technology controls the output of each unit of power generating equipment via three functions; a power generation plan (at intervals of 30 min.), a long-cycle control (at intervals of one to several min.) and short-cycle control (at intervals of several sec.). According to its performance evaluation by computer simulation, its value, which is evaluated simultaneously at an identical quantity for five minutes, is ±2.5% or less. For further information, the evaluation index of the electric power fluctuation level, which is used in general power transactions, is 3% or less, based on the condition that the level be evaluated simultaneously at an identical quantity for 30 minutes.

● Electric power supply and demand control technology for micro grids



- It is an energy supply system consisting of several distributed power sources and several loads, which operates independently of an electric power company's system (for commercial use).
- It combines distributed power sources and batteries onto a network to complement each other and minimizes the influence on power system through IT control, so that natural energy will become increasingly applicable.
- Furthermore, it reduces the environmental impact by reducing transmission loss and totally optimizing heat and electricity.

Renewable Geothermal Power Generation

Already more than a century has passed since geothermal power generation, which uses hot water and steam generated from underground magma reservoirs, was first put to practical use. In recent years, however, such power generation has been re-examined as an excellent clean energy source, and many countries have started introducing it. Such geothermal power generation emits a very small amount of CO_2 emissions per unit of electricity generated, namely around 1.5% the total of coal fired power generation (in comparison with their life cycles), and stable electrical energy can also be generated on demand. Toshiba has been providing quite a few geothermal power generation facilities, not only in Japan but also overseas, such as in the United States, the Philippines, Iceland and Mexico, ever since delivering a turbine generator to the first full-fledged geothermal power plant in Japan. The geothermal power generation facilities Toshiba has manufactured to date provide electric power comprising approximately 30% of the total global geothermal power generation capacity.

Since geothermal power generation features the use of saturated steam, which is free of corrosive elements, its facility and equipment are also strongly encouraged as improving their performance and reliability within the specific geothermal heat environment. Toshiba has been working toward solving various technical issues unique to geothermal power generation, including the development of corrosive-resistant coating technology and so on, and now its technology has been highly evaluated worldwide.

Hellisheidi power plant (in Iceland)

CO_2 Reduction at Home through the Use of Fuel Cells

Fuel cells have begun drawing attention as a new energy sources in various fields, thanks to their high efficiency regardless of system size as well as excellent environmental conservation in terms of highly efficient electric power generation and reduced CO_2 emissions. Toshiba has been accumulating related technologies and gaining on-site experiences for 30 years, through the development and manufacture of phosphoric-acid fuel cells at an earlier stage, etc. Utilizing these experiences, Toshiba embarked on the development of a 1-kW-class fuel cell system for home use from 2000 onward.

It also participated in the NEDO's large-scale demonstration project for stationary fuel cells from the beginning year, which started in FY2005, since when it has installed fuel cell systems for demonstration tests in about 600 households and continuously evaluated their operation data on more than 5 million accumulated hours of power generation from the systems (as of August 2008). Presently, Toshiba is accelerating such research and development to ensure further cost reduction and improved reliability with a view toward commercializing them from FY2009 onward.

Fuel cells for domestic use generate electric power through an electrochemical reaction, whereas they can also use heat derived from such reactions for hot water supply and "their energy is generated on-site" at the point of use. For this reason, they boast outstanding features such as the avoidance of power transmission loss. The introduction of a 1-kW-class fuel cell for a general household will reduce CO_2 emissions by about 30%, or about 1.2 tons reduction per year per household.

Note, however, that city gas and LP gas are used as the raw fuels in this large-scale demonstration project, whereas within Toshiba, a unique development involving the use of kerosene and pure hydrogen as fuels is promoted in addition to such project. We intend to contribute to reducing CO_2 emissions from households by responding to a wide range of needs.

Home-use fuel cells

A Joint Research Program with Tsinghua University (China)

In October 2007, Toshiba Group started a joint research program with Tsinghua University in China for energy/environmental fields. In an effort to solve environmental problems, the "Tsinghua University (heat engineering system)/Toshiba energy/environmental research center" was established in April 2008 to promote joint research concerning many subjects.

We would like to help promote energy saving and solve environmental problems in China by applying the results obtained from the program to both parties and reflecting them in our product development within energy-saving and environmental sectors.

Major research subjects in cooperation with Tsinghua University:

- Technology for measures to mitigate climate change
- Higher performance and longer service life of electric power equipment
- New material development to achieve energy saving
- An environmentally conscious power supply system
- A reduction in the amount of contaminants contained in exhaust gases, their control systems, and water monitoring systems

Eco Products

Contributing to reduce global environmental impacts through the creation of eco products based on

Toshiba Group is promoting the development of ECPs*, which involves environmentally conscious product design, the assessment of environmental impact of products and disclosure of the environmental performance of products. Products in compliance with the Voluntary Environmental Standards for Products established in 1999 are certified as ECPs. Having introduced "Factor T", Toshiba's original eco-efficiency indicator, in fiscal 2003, we are also working to improve product eco-efficiency. In accordance with the "Environmental Vision 2010" announced in fiscal 2005, the Toshiba Group aims to improve product eco-efficiency 2.2 fold by fiscal 2010. We have been applying Factor T in ECP development since fiscal 2005, setting annual "Factor T" targets for all Toshiba Group products.

* ECP (Environmentally Conscious Products)

Results in Fiscal 2007

- **Enhancement of Product Eco-efficiency**
  Whereas the target was 1.74, the result was 1.90. (Target achieved)
- **Provision of Environmentally Conscious Products (Ratio of ECPs to net sales)**
  Whereas the target was 30%, the result was 31%. (Target achieved)
- **Abolition of Use of Specified Chemical Substances**
  Whereas the target was 60%, the result was 63%. (Target achieved)

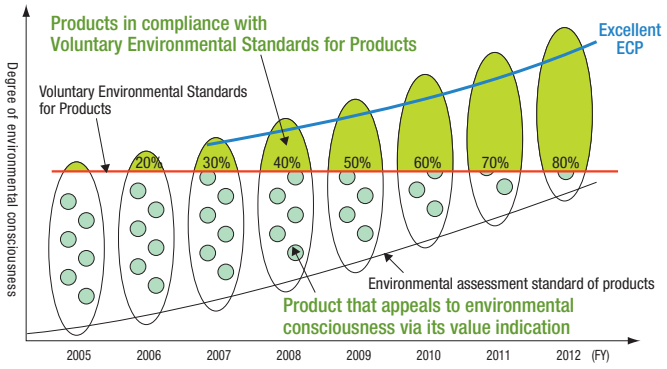
* From FY2008 onward, we newly include and promote the creation of Excellent ECPs and CO_2 emissions reduction in the Eco Products.

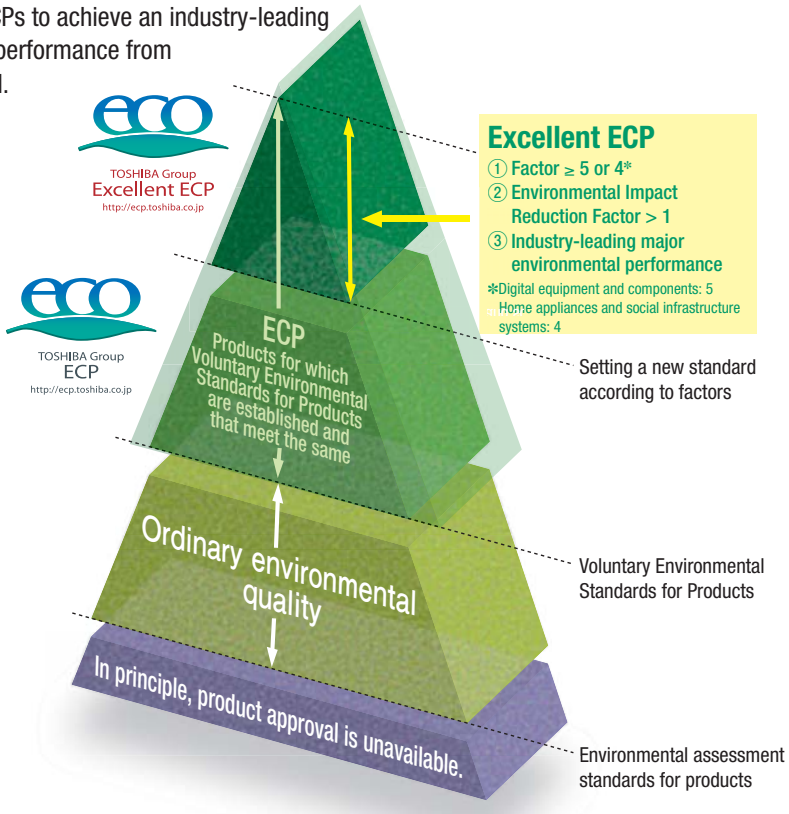
Product Assessment and Voluntary Environmental Standards for Products

In developing products, we conduct a product assessment across their life cycles from manufacturing, logistics and use to disposal and recycling in order to conduct product development and reduce the environmental impacts on the global environment.

Whereas product assessment is used to confirm the minimum necessary environmentally conscious requirements for product development, Voluntary Environmental Standards for Products have been established in Toshiba to create highly environmentally friendly products and those products complying with such Standards are certified as environmentally conscious products (ECPs). According to these Standards, the highest environmental performance level in the industry was set out in FY2005, in order to raise the level of compliant products to 60% by FY2010 and 80% by 2012 (as a ratio of net sales). While the ECPs aim to raise the environmental performance of all products, a new standard was established for Excellent ECPs to achieve an industry-leading environmental performance from FY2007 onward.

Ratio of ECPs to net sales in the Fourth Voluntary Plan





ECP and Excellent ECP

Toshiba Group has established new standards for Excellent ECPs, and also created new marks for the same. To create more environmentally conscious products, those products for which the factors are improved and which are industry-leading eco-products achieving major environmental performance are called "Excellent ECPs", two of which were approved by the Group last year. From the current fiscal year onward, new marks have been created for these ECPs and Excellent ECPs, so that the Group will continue endeavoring to offer Toshiba environmentally conscious products along with the new marks.

Creation Processes of ECPs

Environmentally conscious products are created via the processes shown below. As the target to promote such creation, in-house regulations and guidelines are established and promoted, from three viewpoints; design, evaluation and indication, which vary depending on each of such viewpoints. We believe a 5R design, in which two "reduction" factors (energy saving and cleanness) are added to 3R (reduce, reuse and recycle) is important for environmentally conscious design (eco-friendly design) from the following three perspectives; [Mitigation of Climate Change], [Efficient Use of Resources] and [Management of Chemicals].

Work flow to create ECPs

[Points to be considered]

- Assessment of environmental impacts
  - **Quantitative evaluation in the product life cycle**
    The development of LCA evaluation software that can facilitate designers conducting their own evaluations
- Goal setting
  - **Voluntary Environmental Standards for Products**
    Industry-leading voluntary environmental performance standards are stipulated.
- Development and design
  - **Extended 3R (= 5R) design**
    Reduce design/Reuse design/Recycle design
    Energy-saving design/Design for reduction in environmentally related substances (Cleanness)
- Environmental assessment for products
  - **The assessment is made for all products.**
    "Guideline to make an assessment for products"
- Green procurement
  - **Expanding the scope of target products and information management**
    Regulations to implement green procurement
- Information disclosure of environmental performance
  - **Toshiba Group's ECP mark**
    A mark to indicate product environmental performance in compliance with ISO 14021
  - **Information disclosure via the Toshiba website**
    Products in compliance with Toshiba's Voluntary Environmental Standards for Products
    Products certified to have environmental labels, etc.
    Products meeting the legal criteria on Promoting Green Purchasing
  - **Information disclosure in concert with the Japan Electrical Manufacturers' Association**
    "Voluntary standards of common environmental indications for household electric appliances (JEMA)", etc.

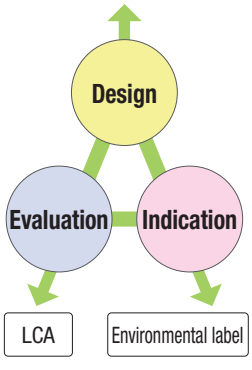
TOSHIBA Group
ECP
http://ecp.toshiba.co.jp

Targets to promote ECPs and the means of promotion

The three viewpoints; design, evaluation and indication, should be regarded as targets to promote ECPs. Subsequently, the creation of ECPs is promoted by streamlining the required in-house systems, guidelines and tools for such targets for ECPs promotion.

Targets for ECPs promotion

A 5R design consisting of 3R + Energy saving + Cleanness



Design

Design guide for environmentally conscious products
Guide for eco-material selection
Regulations to implement green procurement
Power-saving design manual
Packaging design manual
Perspectives and case examples for scrapping product performance, etc.

Evaluation

Guideline to implement product environmental assessments
Eco-material selection guidelines
Expanding the scope of target products, the assessment of environmental impacts of which are evaluated quantitatively
Setting voluntary environmental standards for products, etc.

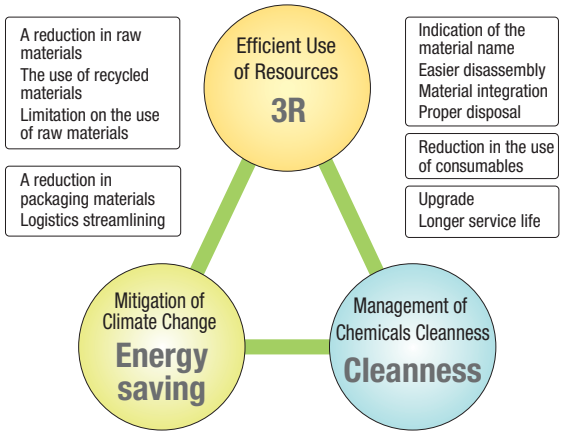
Indication

Basic code for environmental indication
Operational guideline for global environmental marks
Fourth voluntary plan and environmental management audit, etc.

5R design

3R (Reduce/Reuse/Recycle) + Energy saving + Cleanness

(Two "Reduce" factors)



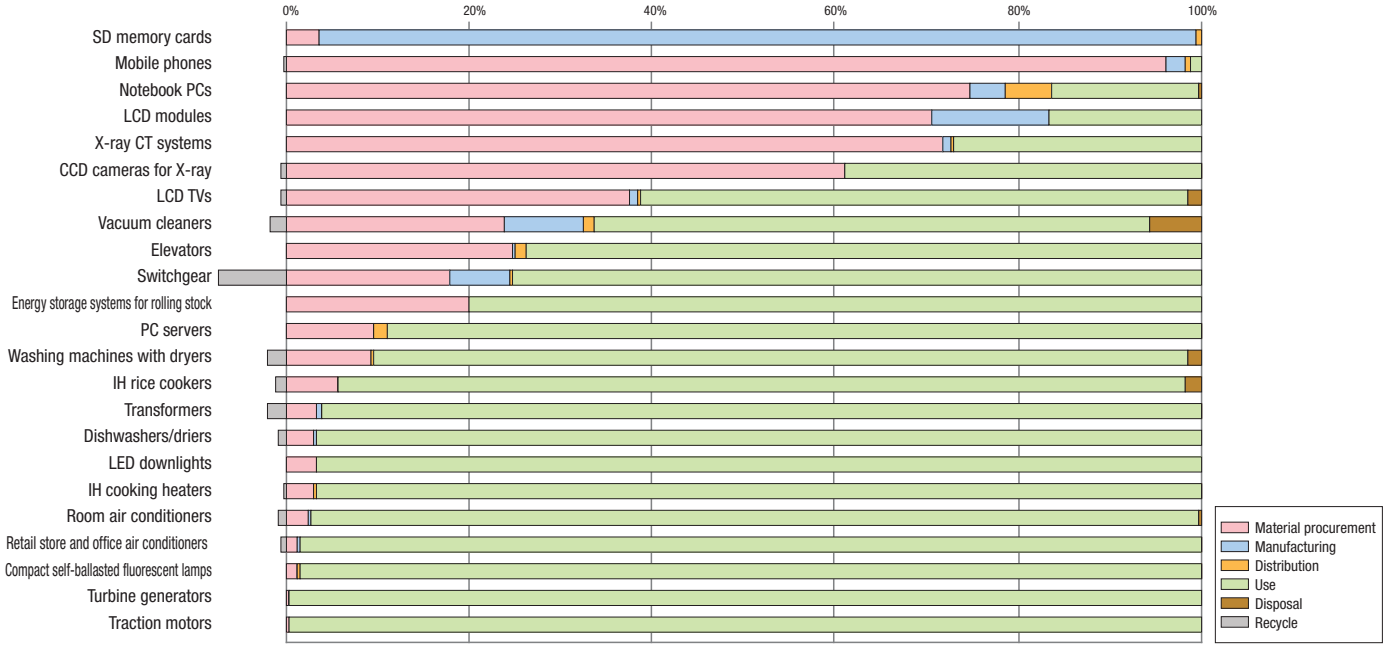
Measures Related to Products to Mitigate Climate Change

As a measure to mitigate climate change, the Toshiba Group is emphasizing the development of environmentally conscious products with minimal environmental impacts throughout their life cycles, from design and manufacture to usage and disposal.

For the wide-ranging Toshiba Group products, ranging from household electric appliances to power plants, the distribution of the breakdown of CO_2 emissions from their product life cycles vary widely. (See the figure shown below.) For example, a larger load at a raw-material procurement stage is imposed on digital products, such as mobile phones and notebook PCs, whereas the load at a manufacturing stage predominates in the case of semiconductor products, such as SD memory cards.

On the other hand, many energy supply products, products with high energy-consumption and other products to be used over long periods of time constitute the majority of the load resulting from power consumption, etc. at their usage stages. These facts reveal that the energy saving of products is the most effective means to reduce CO_2 emissions.

CO_2 emission ratio in the life cycle of the Toshiba Group's products

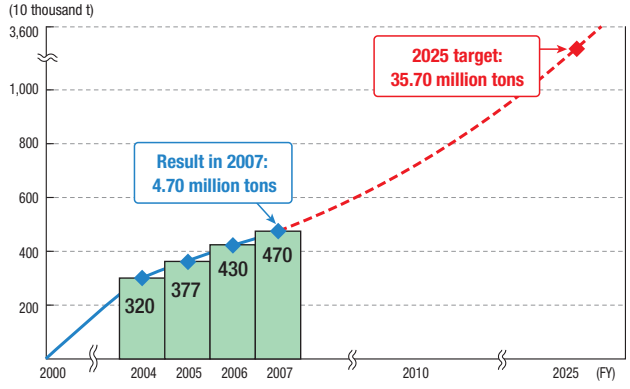


The reduction in CO_2 emissions, which is realized by providing environmentally conscious products (eco products), can be calculated from the following equation, as compared with the products in FY2000. Based on this fact, we have learned that approximately 4.70 million tons of CO_2 emissions could be reduced annually from the entire products shipped in FY2007, following estimates applied to the entire range of Toshiba Group products. We will continue to provide environmentally conscious products which emit less CO_2, hence we estimate that CO_2 emissions will be reduced by 35.70 million tons in 2025.

Reduction of CO_2 emissions = { CO_2 emissions/year of target models in their life cycle } − { CO_2 emissions/year of FY2000 models in their life cycle } × Annual volume of shipments of target models

→ The results are summarized from all products (excluding power supply products) of Toshiba Group.

CO_2 emissions reduction effect resulting from the provision of eco products (as compared with 2000)



Measures for Environmentally Conscious Design Regulations in Europe

Although, as exemplified by the top-runner standards in the industry, products for which energy saving is demanded have been increasing in Japan, the EuP (Energy-using Products) directive*, a new environmentally conscious design regulation in Europe, is currently about to be formulated. In this respect, a design capable of meeting energy-saving and standby power standards is required for individual products. From around the end of 2009 onward, individual products meeting the requirements of this EuP directive will all be required to have a CE mark attached. Since other regulations that mandate a rigorous energy-saving design, as exemplified by the EuP directive, are expected to increase in each country, we consider it our mission to create a series of industry-leading products, which comply with such regulations.

* EuP (Energy-using Products) directive: It is the directive that instructs products consuming energy of electricity, fossil fuels, etc. to comply with requirements for energy-saving and eco design.

Total Commitment to Energy-saving Efforts for Products

Within the large product range of the Toshiba Group, the largest amount of CO_2 is emitted at the usage stage of all their life cycles, from design and manufacture to usage and disposal. For example, CO_2 emissions account for about 60% of total emissions from digital products and about 80% of the same from household electric appliances and social infrastructure systems. With this in mind, the Toshiba Group has been tackling the reduction of energy consumption of products during their usage by setting different annual targets for each fiscal year since the launch of the Second Voluntary Plan in fiscal 1996.

For example, an increasing range of energy-saving measures have been taken year after year for 32-inch LCD TVs, as shown in the right-hand figure (Case Study 1), maintaining leading industry levels of energy-saving efficiency.

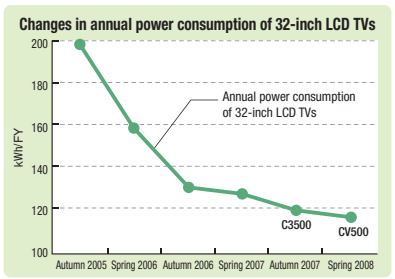
In addition, loads during the use of washing machines with dryers account for 90% of the total load in their product life cycle, comprising CO_2 emissions resulting from power consumption, water and detergent during their use. The right-hand figure (Case Study 2) shows changes in annual CO_2 emissions of the rotary drum washer and dryer, from which we can see that the emissions have been gradually declining year on year, thanks to its performance improvement. From FY2006 onward, in particular, the adoption of the heat-pump-type drying function has resulted in a significant reduction of power consumption during the drying operation and enabled the amount of cooling water for removing moisture to become zero. Also, for the "Washing machine with dryers [of the heat-pump and hybrid drum type] TW-3000VE" which was released in FY2007, CO_2 emissions decreased by 66% (about one third) as compared with those in FY2000 models.

Case Study 1

Digital Media Network Company

Achieved the leading industry energy-saving rate, 170%.

Digital Hi-Vision LCD TV
「REGZA」32CV500

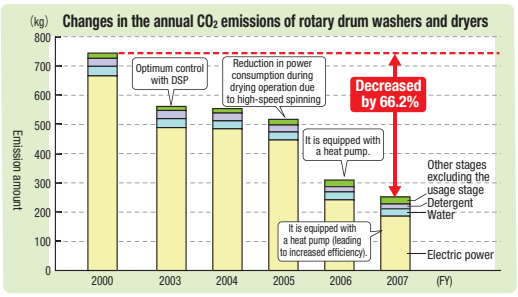


Case Study 2

Toshiba Home Appliances Corporation

CO_2 emissions decreased to approx. 1/3 (as compared with 2000)

Washing machine with dryer
"heat-pump and hybrid drum"
TW-3000VE



(Use conditions: Calculated based on the assumption of 600 washing operations/year and 300 drying operations/year.)

LED downlight

Long-life downlight to replace incandescent luminaire.

High-efficiency LED downlight "E-CORE"
E-CORE 60W class
LEDD-66001W-LS1
(Introduced in November 2007)

Factor 8.08

High-efficiency LED downlight "E-CORE"
E-CORE 40W class
LEDD-44001W-LS1
(Introduced in July 2007)

Benchmark product
ID7200NB (W)
with 60W-type
Mini krypton lamp

Advantage

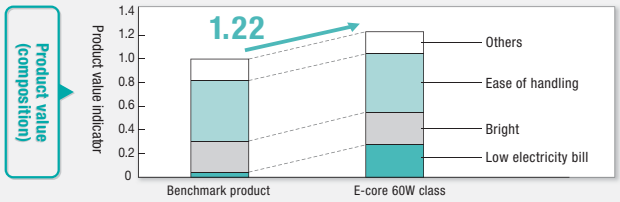
This highly efficient LED downlight is the first product from Japanese lighting industry to Achieve the LED lighting performance target set by the government in view of the Kyoto Protocol. It mitigates global warming and is economical at the same time.

Value factor **1.22**

Main points of value improvement

Increased luminance… 7.8times higher efficiency:50lm/W for LED downlight compared with 6.4lm/W for an incandescent luminaire.

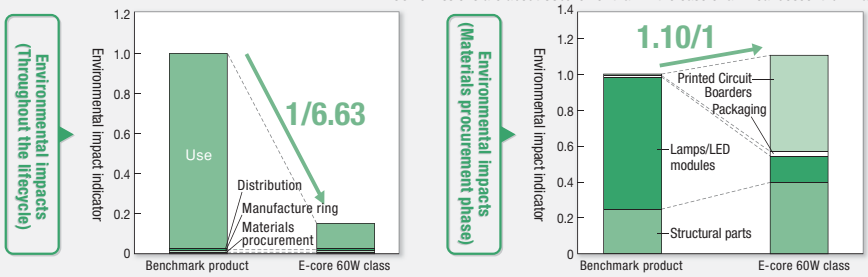
Maintenance saving… Long life of 40,000hours. Built-in power source unit easy installation.



Environmental Impact Reduction Factor **6.63**

Main points of environmental impact improvement

Mitigation of climate change… Power consumption reduced to one seventh: 7.8W for LED downlight compared with 54W for a incandescent luminaire.
CO_2 emissions are about 85% lower than in the case of an incandescent luminaire.



✻ For details of each factor, see pages 24 onwards.

Management of Chemicals for Products

Based on the belief that the task of minimizing the risk associated with the chemical substances that have been suggested and adopted in WSSD* and so on should be regarded as an important task we should complete, Toshiba Group is proceeding with activities to phase out specified chemical substances, decrease their content rate in products and exercise content rate management for the same so that customers can use Toshiba products with confidence.

* WSSD (World Summit on Sustainable Development)

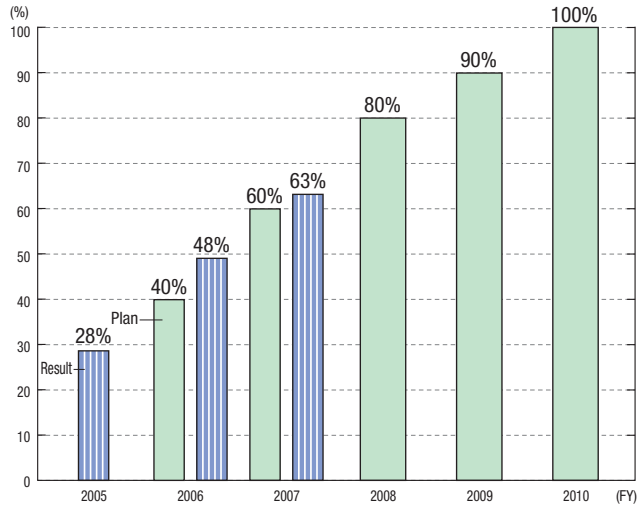
Working to Abolish the Use of Specified Chemicals

Long before July 2006 when the RoHS* (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) Directive of the European Union (EU) banned the use of six substances for any products sold within the EU, Toshiba Group had achieved complete compliance with chemical substance control regulations for products in each country, by ceasing the use of the six substances specified by the RoHS Directive in all products introduced from April 2005 onward.

In accordance with the Fourth Voluntary Plan launched in fiscal 2005, we specified 15 substance groups, since when we have been targeting their phase-out by fiscal 2010. Initially, the ratio of products not containing these 15 substance groups to net sales was 28%, although this ratio subsequently increased to 48% in FY2006 (the second year of the plan) and 63% in FY2007 (the third year). Under such circumstances, the Group has been steadily striving to promote activities for their total abolition.

* RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) Directive: It is a directive banning the use of specified hazardous substances for electrical and electronic equipment. This applies to the following six substances: lead, mercury, cadmium, hexavalent chrome, and the bromine series flame retardants (PBB [polybrominated biphenyl] and PBDE [polybrominated diphenyl ether]).

Ratio of products not containing these 15 substance groups to net sales



[15 substance groups subject to restriction]

(1) Bis (tributyl tin) = oxide (TBTO)
(2) Tributyl tins (TBTs), and Triphenyl tins (TPTs)
(3) Polychlorinated biphenyls (PCBs)
(4) Polychlorinated naphthalenes (PCNs with 3 or more chlorines)
(5) Short-chain chlorinated paraffins
(6) Asbestos
(7) Azo colorants
(8) Ozone-depleting substances
(9) Radioactive substances
(10) Cadmium and its compounds
(11) Hexavalent chromium compounds
(12) Lead and its compounds
(13) Mercury and its compounds
(14) Polybrominated biphenyls (PBBs)
(15) Polybrominated diphenyl ethers (PBDEs)

* Detailed definitions and specific applications to be excluded are specified separately.

Notebook PC

Lightweight and robust low-environmental-impact mobile computer offering long-time operation.

Factor **5.11**

dynabook SS RX1
(Introduced in June 2007)

Benchmark product
dynabook2650

Advantage

Adoption of LED backlight LCD eliminates use of mercury. This PC offers not only cutting-edge mobile performance but also outstanding energy-saving performance.

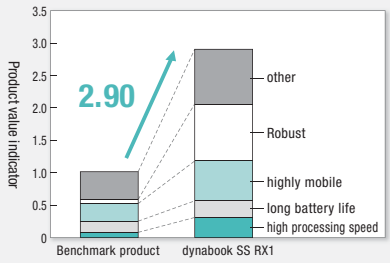
Value factor **2.90**

Main points of value improvement

Enhanced performance ..... By flash memoly drive, High-speed processing and large-capacity data storage. Long-time operation by battery and easy-to-view screen.

High reliability ... Principal components protected from external shock and structural design offering protection against liquid infiltration. Fingerprint sensor and TPM security prevent unauthorized access to HDD.

Product value (composition)



Environmental Impact Reduction Factor **1.76**

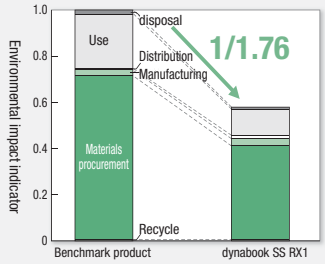
Main points of environmental impact improvement

Mitigation of climate change ... Low power consumption, thanks to the low-voltage unit and system power management.

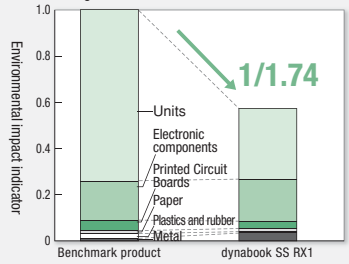
Optimization of resources ..... Resource saving by miniaturization of substrates and lightweight keyboard and display.

Management of chemicals ..... Adoption of substrates free from halogen/antimony compounds and mercury-free LED backlight LCD.

Environmental impacts (throughout the lifecycle)



Environmental impacts (materials procurement phase)



* For details of each factor, see pages 24 onward.

Efforts to Reduce and Manage Chemical Substance Content Rates

In Toshiba Group, the prohibition of use, reduction in content rate and management of content rate of the chemicals in products are classified into specific ranks, to ensure the substances can be properly managed. The Group's "Regulations to implement green procurement" which were totally revised in November 2006, have defined 34 substance groups (rank A), the use of which is prohibited in any products and 20 substance groups (rank B), which the Group should try to reduce and replace with alternatives. Even for these rank-B substance groups, the Group will aggressively proceed with efforts to replace them with alternatives if they are available from the viewpoint of mass production and cost efficiency and also if they can reduce the environmental burden without affecting the capabilities, performance, or quality of products. These efforts have already been directed to certain phthalates, beryllium and antimony in succession, including polyvinyl chloride (PVC) and brominated flame retardants (BFR).

Case Study

◆Environmental Considerations for Mobile Phones

Mobile Communications Company

Adoption of PVC-free coating

PVC-free primer material used to coat the external plastic cases.

PVC-free coated plastic cases

Adoption of Halogen-free Printed Circuit Board

The printed circuit boards used with the content of elements of halogen-family substances (bromine and chlorine), which produce dioxin if burned, is reduced to a level below the criteria defined by the Japan Electronics Packaging and Circuits Association (JPCA).

Halogen-free mark

Halogen-free printed circuit boards

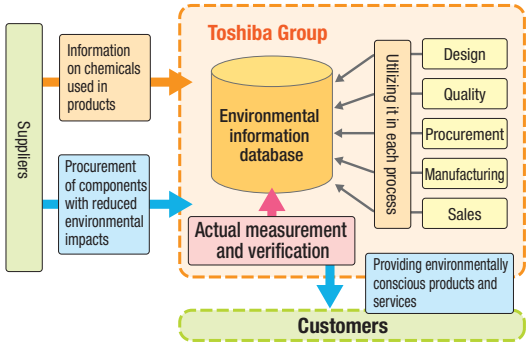
Rank-B substance groups

- polyvinyl chloride • antimony/antimony compounds
- arsenic/arsenic compounds • beryllium/beryllium compounds • bismuth/bismuth compounds
- brominated flame retardants (excluding PBBs and PBDEs) • nickel (for external use only)
- certain phthalates • selenium/selenium compounds
- zinc compounds • chlorinated paraffin (excluding some short-chain chlorinated paraffins)
- trivalent chrome/trivalent chrome compounds • cyanogen compounds
- nickel (excluding external use)/nickel compounds
- perfluorocarbons • hydrofluorocarbons
- halogen resin additives (excluding bromic flame retardants) • sulfur hexafluoride
- manganese compounds • organotin compounds (excluding TBT and TPT)

Green Procurement Initiatives

Toshiba Group has established the Green Procurement Guidelines, in accordance with the Regulations to Implement Green Procurement, while it has also been championing green procurement worldwide in cooperation with its suppliers. Prior to the procurement of parts and raw materials, the ratios of environmentally harmful substances and scarce resources relative to the weight of procurement items have been checked, Toshiba prioritizes the use of parts and raw materials which are superior in terms of environmental impacts. We make it a rule to compile such information into a database and utilize the same for developing ECPs. Also, in determining whether new procurement items should be approved and existing procurement items replaced with others or not, Toshiba has conducted an investigation of the content of 24 substance groups in the procurement items. Furthermore, in order to prove the results of investigation, efforts have been made to steadily clarify the chemical substances contained in products through the acquisition of analytical data of substances used in procurement items as required, as well as through the implementation of in-house chemical substance analysis. In efforts to further improve the accuracy and efficiency of this in-house analysis method, Toshiba has also been striving to develop and improve them.

● **Creating a database of procurement items, such as parts and raw materials**



Addressing New Regulations

Toshiba Group is currently streamlining the intra-group framework and taking measures to comply with REACH (Registration, Evaluation, Authorisation and Reseriction of Chemicals, a new regulation on chemical substances in Europe), which has come into force since June 2007. This REACH makes it obligatory to register not only new chemical substances but also several tens of thousands of existing chemical substances exported to the EU and to file reports and apply for the authorization for such chemicals contained in products. To work toward compliance with this regulation, Toshiba has participated in the Joint Article Management Promotion-consortium (JAMP), regarding the task of compliance with such regulation as an issue the entire industry must address.

Because chemical substance and component manufacturers, which are positioned upstream from the viewpoint of information transfer, as well as other manufacturers of assembled products which are downstream position from the aforementioned perspective in various industries have participated in JAMP, the establishment of a specific framework has also been promoted to properly manage information on the chemical substances contained in components, molded items, etc. as well as smoothly disclosing and conveying such information throughout supply chains. The Toshiba Group will also make positive use of this JAMP's framework to distribute information on chemical substances.

Efficient Use of Resources for Products

To establish a recycling-oriented society, Toshiba Group is working to pursue the efficient use of limited resources.

In an effort to minimize the consumption of resources and discharge of resources as waste throughout product life cycle, it is essential that we promote resource-saving product designs and the designs to enable reuse and recycling at the design and development stages of products, namely the upstream phase of their life cycle.
For example, Toshiba Group is engaging in resource-saving product design, such as developing not only lighter and more robust products, with longer service lives, but also those resource-saving products, which consume less water, detergent and paper during their use; and designs to enable reuse, such as enhancing the use of modules so that product repairs and upgrades can be performed simply by replacing parts of modules; and designs to enable recycling, such as a reduction in the number of parts, the selective choice of materials and labeling material properties, in order to facilitate disassembly and recycling.
Furthermore, as a means of promoting these 3R designs, the Group has developed design tools, such as a guide for eco-material selection and for environmentally sensitive design, as well as environmental assessment tools to establish the setting of such guidelines to implement product environmental assessments, voluntary environmental standards for products and so forth, while simultaneously performing an environmental management audit for management and internal audits, e.g. technology audits, for the operating divisions.

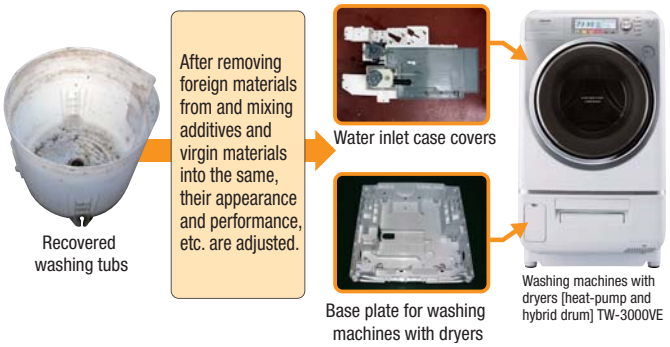
Approach to Using Recycled Resources

The Toshiba Group encourages the use of recycled resources, through which the consumption of new materials can be decreased. Specifically, the Group promotes material recycling, in which recycled plastics produced from waste plastics, which are generated from end-of-use products, etc. are used for new products. In the case of washing machines, for example, it utilizes resources recovered from used washing tubs and reuses them for water inlet covers and base plates for the washing machines. In FY2007, a total of approximately 1,300 tons of recycled materials were used as plastic materials for base plates of washing machines, digital multifunctional peripherals (MFPs), etc.

Case Study

◆Material Recycling of Washing Machines

Toshiba Home Appliances Corporation



LCD TV

Hi-Vision TV, enabling higher-quality image clarity with excellent image reproduction and motion-picture tracking performance

Digital Hi-Vision LCD TV
REGZA 37C3500
(Introduced in September 2007)

Factor **2.35**

Benchmark product 37L4000

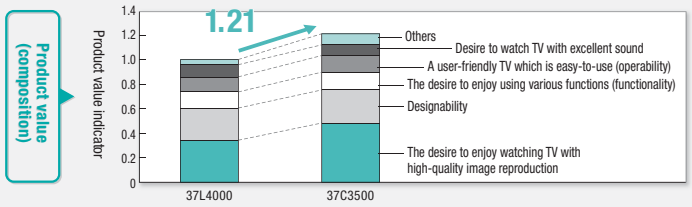
Advantage

The sleek lines and breathtaking picture quality will touch your heart. It s an all-round star with good looks and excellent energy-and resource-saving credentials.

Value factor **1.21**

Main points of value improvement ▶

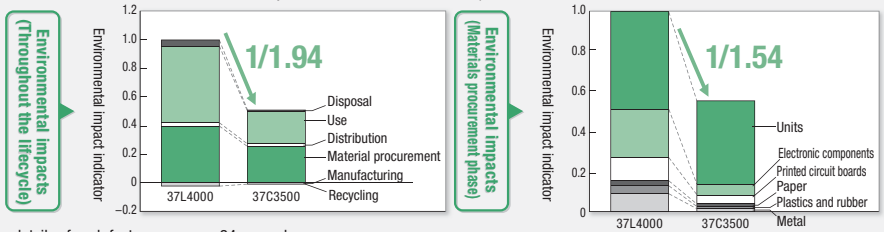
Beauty ..... Full HD panel for 2,070,000-pixel high-definition image clarity.
Minimal design ... The optimum design taking advantage of the authentic quality of materials.



Environmental Impact Reduction Factor **1.94**

Main points of value improvement ▶

Mitigation of climate change ... With full HD, annual power consumption is comparable to that of WXGA.
Optimization of resources .....
- The screw count decreased by 72% as a result of reduction in the number of PCBs due to higher integration of electric circuits as well as of ingenious technology applied to chassis structure. Also, downsizing and thinning of metal components along with lighter weight of desktop pedestal have resulted in 58% decrease in total main unit weight (compared with the benchmark model 37L4000).
- Amount of packaging materials decreased by 37%, including 57% decrease in weight of cushioning materials and so on, as compared with the benchmark model 37L4000.
- Recycled materials are used for the cable clamp holder.



✻ For details of each factor, see pages 24 onward.

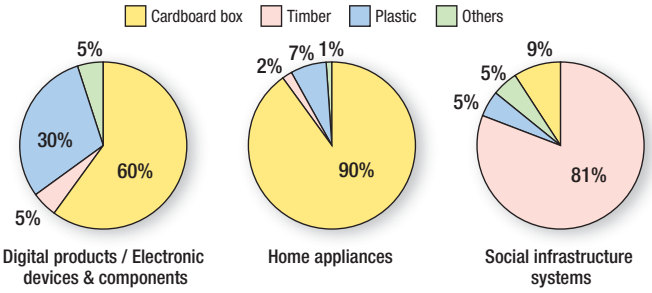
Facilitation of the Rationalized Use of Containers and Packaging Materials (Concept)

With consideration given to ensuring product quality, which is a major role played by containers and packaging materials, Toshiba Group believes that promoting eco-friendly packaging also plays an important role in optimizing packaging. In June 2006, the intra-group promotion working group (WG) was established to accelerate and facilitate 3R efforts for packaging across the entire Toshiba Group, which were previously made individually at each operation site. In addition, the Group has been pushing ahead with this promotion, setting a goal entitled "a 10% reduction by fiscal 2010 compared with fiscal 2005 in the amount of packaging materials used distributed in Japan (rate to net production output)".

Striving Based on Product Characteristics (Efforts made in the last year)

The main packaging materials used for products vary according to the product characteristics. For example, timber, which offers ease of processing, is used for social infrastructure systems, which are heavy and often produced to order; while corrugated cardboard is used for home electric appliances, which are relatively lightweight, etc. Based on the conviction that it is effective for us to examine improvements depending on product characteristics in making such efforts, we held an engineer exchange session, including a packaging site inspection tour, in the last fiscal year in order to share excellent improvement case examples with each other in each product category and further develop packaging technology.

Breakdown of the use rate of packaging materials by product category (FY2007)



Case Study 1

◆Case Study Regarding "Reduce"

- Projector: Reduction in the amount of packaging materials used -

Digital Media Network Company

Product units and their accessories used to be individually packaged inside carrier bags. We have succeeded in significantly decreasing cushioning materials, by enhancing cushioning performance of the carrier bags and packaging the product units and their accessories together in the bags. As a result, the amount of packaging materials used per set has decreased to a level about 50% lower than before the improvement was made.

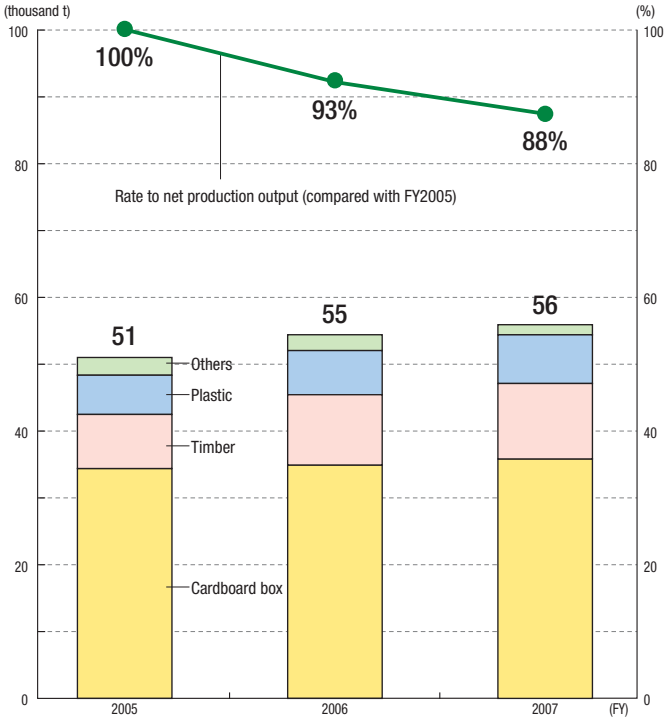
Before improvement

After improvement

Setting a New Goal after Achieving the Previous Goal Ahead of Schedule (Future initiative)

Since the amount of packaging materials used in FY2007 was about 57 thousand tons (distributed in Japan), which is 12% lower compared with that in FY2005 (rate to net production output), the target was achieved earlier than expected. In view of this result, the WG (intra-group promotion working group) considered increasing the target value and a new goal has been set, to achieve a 15% greater reduction compared with the level in FY2005 by FY2010.
We will continue promoting a reduction in the amount of packaging materials used and the reuse of the same in manufacturing, logistics and sales processes in order to achieve this new target for fiscal 2010.

Changes in the amount of packaging materials used and rate to net production output



Case Study 2

◆Case Study Regarding "Reuse"

- General radiographic X-ray apparatus: Changing to recyclable box from disposable packaging -

Toshiba Medical Systems Corporation

We have made improvement whereby conventionally disposable wood containers or cardboard boxes with wood portions in their lower portions were switched for foldable steel recyclable boxes while ensuring loading strength during transport. This has resulted in a decrease of around 8% in packaging mass as well as a reduction of about 36 tons in the amount of wood used and waste per year.

Before improvement

After improvement

What is the Factor T?

Toshiba Group has introduced this Factor, an eco-efficiency indicator, which comprehensively assesses a product's value and its environmental impacts. This is an indicator of the eco-efficiency of environmental impact reduction, where a product value is divided by the environmental impact made during its life cycle. The lower the environmental impact or the higher the product value, the greater the eco-efficiency.

The factor represents a degree of improvement of eco-efficiency of a product subject to assessment, relative to the eco-efficiency of the benchmark product. In Toshiba Group, products manufactured in FY2000 are used as the benchmark. The greater the eco-efficiency of the product subject to assessment, the higher the factor value. Although various calculation methods are available to determine the eco-efficiency and factor depending on the corporation, Toshiba Group is characterized by the following three types of integration:

(1) Product value: Its integration is achieved with weight assigned to several functions through QFD (*1).
(2) Environmental impact: It is integrated as the amount of environmental damage through the use of LIME (*2).
(3) The eco-efficiency of the business process and a product's eco-efficiency are integrated

At Toshiba Group, all activities undertaken to create environmentally conscious products (ECPs) based on the factor calculation described above are collectively referred to as "Factor T" with the T standing for "Toshiba", so as to further promote the creation of more ECPs.

While the factor is defined as a ratio of eco-efficiency between a product subject to assessment and the benchmark product, it can also be expressed in such a manner whereby it is subdivided into a value factor and an environmental impact factor (the inverse of which is the environmental impact reduction factor) where each of the value of a product (numerator) and the environmental impact of the product (denominator) are divided by the value of the benchmark product.*3 Based on this, both the rate of value improvement and the reduction rate of environmental impact can be evaluated.

Concept of eco-efficiency in the Toshiba Group

- An integrated evaluation value should be used for both the numerator and denominator of eco-efficiency.
- Integration should be achieved based on consumers' values

Using QFD (Quality Function Development), its integration is achieved with weight assigned to several functions.

$$\text{Eco-efficiency} = \frac{\text{Value of product and service}}{\text{Environmental impact}}$$

It is integrated as environmental damage amount through the use of LIME.

*1 QFD (Quality Function Deployment): A systematic process for integrating product functions based on the degree of importance customers attach to them when selecting a product.
*2 LIME (Life-cycle Impact Assessment Method based on Endpoint Modeling): It is LCIA methodology developed by the National Institute of Advanced Industrial Science and Technology in Japan.

*3

Factor = **Value Factor** (Degree of improvement of product value) × **Environmental Impact Reduction Factor** (Degree of reduction of environmental impacts)

The greater the factor, the higher the value and the more environmentally conscious the product is.

Overall value, including convenience and comfort, is calculated based on the voice of customers. The higher the value compared with the benchmark product, the greater the value factor is.

Environmental impacts are calculated by employing the life cycle assessment method. The lower the environmental impacts compared with the benchmark product, the greater the environmental impact factor is.

In the case of a refrigerator, for example …

- A larger capacity relative to installation area
- The door(s) is easily opened and closed.
- It can retain freshness to ensure better taste, etc.

- Ozone layer protection (CFC-free refrigerator)
- Energy saving, etc.

*3

$$\text{Factor} = \frac{\text{Eco-efficiency of a product subject to assessment}}{\text{Eco-efficiency of the benchmark product}} = \frac{\text{Value of a product subject to assessment}}{\text{Environmental impact of a product subject to assessment}} \div \frac{\text{Value of the benchmark product}}{\text{Environmental impact of the benchmark product}} = \frac{\text{Value of a product subject to assessment}}{\text{Value of the benchmark product}} \times \frac{\text{Environmental impact of the benchmark product}}{\text{Environmental impact of a product subject to assessment}}$$

(Value Factor) (Environmental Impact Reduction Factor)

Activities for the Standardization of Eco-efficiency and Factors

Together with eight electric-appliance makers, we are working on standardizing activities performed for eco-efficiency and factors in the industry. In 2006, five electric-appliance makers, including Toshiba, established standardization guidelines for four types of household electric appliances, and engaged in public relation activities at a common booth for eight electric-appliance makers in the Eco-Products 2007 exhibition. We will encourage industry-wide cooperation, primarily by expanding the scope of target products and international standardization activity.

Standardization efforts made by eight electric-appliance and electronics makers

Voluntary efforts made by five electric-appliance makers (from April 2006 onward):
Toshiba Corporation, Hitachi Ltd., Fujitsu Limited, Panasonic Corporation (Former Matsushita Electric Industrial Co., Ltd.) and Mitsubishi Electric Corporation

Media coverage by Nihon Keizai Shimbun, etc. (November 2006):
A "Standardization guideline" was established for "Factor X" of four types of household electric appliances.

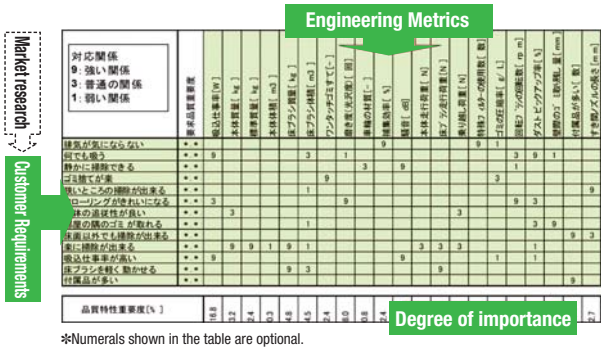
WG organized under the umbrella of the "Nihon Kankyo Koritsu Forum (Japan Eco-efficiency Forum)" (April 2007):
Including Sanyo Electric Co., Ltd., Sharp Corporation and NEC Corporation, eight electric-appliance makers began examination.

Value Factor – Degree of improvement of product value –

QFD Technique which Determines Product Value

Toshiba Group has introduced the QFD (Quality Function Deployment) technique as a method to express a product value. The QFD is the method via which real customer requirements is determined based on actual opinions obtained from customers, a matrix table in connection with design specifications (Engineering Metrics) is prepared, and the strength and weaknesses are determined in order to derive important Engineering Metrics from the same. It has been firmly established as methodology to enhance customer satisfaction in the product development of Toshiba Group.
We make it a practice to apply this QFD technique in calculating the product value of Factor T, while nondimensional numeric values are determined depending on important Engineering Metrics by comparing the quality between the benchmark product and a product subject to assessment, so that the numeric values can be integrated as product value indicator (value factor).

QFD matrix table (case example for vacuum cleaners)



*Numerals shown in the table are optional.

Environmental Impact Reduction Factor – Degree of reduction in environmental impacts –

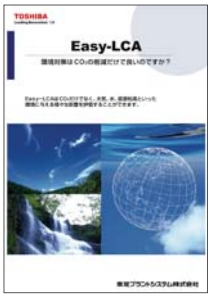
Simplified Evaluation Tool for LCA, "Easy-LCA"

The "Easy-LCA" is mainly used to calculate the environmental impact in a product life cycle. This is a simplified evaluation tool for life cycle assessment (LCA) developed by Toshiba in 1996, which incorporates an environmental impact database based on the Input-Output Tables serving as statistics of the inter-industry shipment value in Japan, which is able to calculate 30 types of environmental loads (inventory) in the life cycle. The life cycle model assumes that home appliances and office equipment is configured in advance in this tool, which means various scenarios can be specified depending on a desired analysis. With this tool, the environmental impact of a benchmark product and those subject to assessment during the life cycle can be determined.

Simplified evaluation tool for LCA: Easy-LCA

- Commercially available in October 1997
- Provided with a database based on the inter-industry relations table
  The latest inter-industry relations table 2000 in Japan is used.
  The environmental impact per unit in about 400 sectors is presumed.
  According to the amount in value on a pro-rata basis, the sectors can be subdivided into about 4,000 sectors.
- Adoption of the hybrid method
  Based on buildup analysis, the overseas environmental impact can be presumed and added.
- Thirty types of environmental impact inventories can be calculated.

Category		Item
Consumption	Fuels	Crude oil (fuel), coal, and natural gas
	Material	Crude oil (material), iron, copper, aluminum, lead, zinc, manganese, nickel, chromium, gravel, crushed stone, limestone, and timber
Emission	Atmospheric air	CO_2, SOx, NOx, PM, HFC, HFC23, PFC, and SF6
	Water quality	BOD, COD, SS, Total-N, and Total-P
Energy (heat quantity)		



Source: Sales data from Toshiba Plant Systems & Services Corporation
(See p. 52 for related information.)

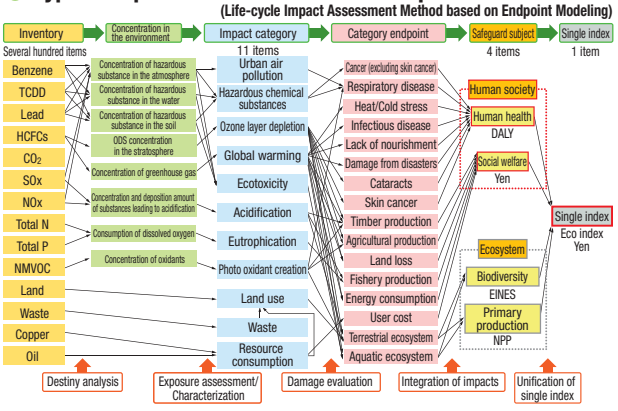
Life-cycle Impact Assessment Method based on Endpoint Modeling (in Japan), "LIME"

LIME : Life-cycle Impact assessment Method based on Endpoint modeling

LIME is what calculates comprehensive environmental impacts from various environmental impacts calculated from the Easy-LCA. LIME is a method by which a wide variety of environmental impacts of products are integrated in the form of the damage amount and a single index can be calculated. In this calculation, a damage quantity relative to four targets for protection (human health, social assets, biodiversity and primary production volume) is determined based on the latest scientific findings from as many as several hundred inventory items, following which the result is finally converted into an intended payment amount using the economic value analysis method called Conjoint Analysis, so that the quantity will be figured out as a single index. Via this LIME method, various environmental impacts can be comprehensively evaluated.
By calculating the environmental impacts of the benchmark product and products subject to assessment in this manner, the environmental impact reduction factor can be calculated.

Typical impact evaluation method in Japan: LIME

(Life-cycle Impact Assessment Method based on Endpoint Modeling)



Eco Products

Examples of Products for which Factor T is Calculated

Some examples of products for which Toshiba Group's factors have been calculated are introduced here under the scenario of life situations in households, offices and society.

Home Appliances

Products with greatly improved environmental performance

Products with greatly improved environmental performance and greatly improved value

Products with greatly improved value

2 Washing Machine with Dryer

TW-3000VE

Advantage: Both water consumption and power consumption are slashed because new technology gets most of the water out of laundry before drying starts and thanks to the newly developed heat pump system.

Value factor 1.59

Environmental Impact Reduction Factor 2.41

Factor 3.83

3 Refrigerator

GR-X56FT/X53FT

Advantage: Because the vegetable compartment is within the refrigeration compartment, it's easy to find what you want without having to rummage. As well as saving energy, you are less likely to waste food.

Value factor 1.08

Environmental Impact Reduction Factor 1.28

Factor 1.38 (2006/2007)

10 Residential Fuel Cell

TM1C

Advantage: A fuel cell is like a mini power plant for your home. Development has been continued for significant product of high efficiency not to waste energy.

Value factor 1.69

Environmental Impact Reduction Factor 1.90

Factor 3.21

2 Air Conditioner

RAS-402BDR

Advantage: The "Daiseikai" BDR-series is the industry top-class room air-conditioner for the 21st century. It brings drastic energy saving and comfort by pressing a button of the remote controller.

Value factor 1.71

Environmental Impact Reduction Factor 1.32

Factor 2.25

3 Heat Pump Water Heating System

HPE-FB364SCT (right), HPE-453CU (left)

Advantage: Enjoy the benefits of efficient odor- and smoke-free water heating using air heat. This environmentally friendly water heating system helps reduce CO_2 emissions.

Value factor 1.46

Environmental Impact Reduction Factor 1.25

Factor 1.82

4 Vacuum Pressure IH Rice Cooker

RC-10VSA

Advantage: This rice cooker is the world's first to come with a compact vacuum pump. High-pressure cooking of rice soaked in water in a vacuum means that you get the best out of every grain of rice.

Value factor 1.50

Environmental Impact Reduction Factor 1.18

Factor 1.77

5 Compact Self-ballasted Fluorescent Lamp

EFA25EL/21-R

Advantage: It looks like an incandescent lamp but it's an energy-saving and resource-saving fluorescent lamp with low power consumption.

Value factor 1.39

Environmental Impact Reduction Factor 1.18

Factor 1.63

14 Vacuum Cleaner

VC-105XP

Advantage: This vacuum cleaner is convenient and environmentally friendly. The new system minimizes maintenance and power consumption is reduced too.

Value factor 1.91

Environmental Impact Reduction Factor 0.87

Factor 1.65

15 Dishwasher

DWS-600B

Advantage: It's economical because more dishes are done with less water. It's quiet. And loading is so wonderfully flexible that everything goes in!

Value factor 1.60

Environmental Impact Reduction Factor 1.01

Factor 1.61

Digital Products (Home)

16 IH Cooking Heater

BHP-M47CS

Advantage: The new touch-panel heat control and a grill big enough for a 10-inch pizza are ultra-convenient. Also, energy-saving measures are built into the design.

Factor 2.28

Value factor 2.12

Environmental Impact Reduction Factor 1.07

17 Fluorescent Lamp

FHC27ED-PD

Advantage: Longer life means you don't have to replace the lamp so often, which saves resources. Superior fluorescent material and a novel overcoat increase illuminance.

Factor 1.23

Value factor 1.22

Environmental Impact Reduction Factor 1.00

18 Ceiling Light

FVH77607

Advantage: Bearing the Japan Organics Recycling Association's Biomass Mark, this light is environmentally and people friendly. CO_2 emissions are reduced.

Factor 1.31

Value factor 1.31

Environmental Impact Reduction Factor 1.00

19 Shower Toilet Seat

SCS-T150

Advantage: Since the shower toilet is on around the clock, power consumption is significant. Energy saving and water saving are achieved by minimization of heat radiation and enhancement of the cleaning power of shower water.

Factor 1.15

Value factor 1.15

Environmental Impact Reduction Factor 1.00

4 LCD TV

REGZA 37C3500

Advantage: The sleek lines and breathtaking pictures quality will touch your heart. It's an all-round star with good looks and excellent energy-and resource-saving credentials.

Factor 2.35

Value factor 1.21

Environmental Impact Reduction Factor 1.94

6 Media Player MET401

Advantage: This player uses NAND flash memory to store 960 songs or 16 hours of video. The resource-saving design is almost the same size as a credit card.

Factor 3.84

Value factor 1.54

Environmental Impact Reduction Factor 2.49

1 Notebook PC dynabookSS RX1

Advantage: Adoption of LED backlight LCD eliminates use of mercury. This PC offers not only cutting-edge mobile performance but also outstanding environmental performance.

Factor 5.11

Value factor 2.90

Environmental Impact Reduction Factor 1.76

2 Mobile Phone (au) W61T

Advantage: This card-size*1 mobile phone with an easy-to-view LCD screen uses easy-to-recycle metal and PVC-free coating for environmental friendliness.

Factor 4.47 (2007/2000)

Value factor 8.23

Environmental Impact Reduction Factor 0.54

3 Mobile Phone(SB) 822T

Advantage: This slender mobile phone with an easy-to-view LCD screen uses easy-to-recycle metal and PVC-free coating for environmental friendliness.

Factor 4.47 (2007/2000)

Value factor 8.23

Environmental Impact Reduction Factor 0.54

4 HDD & DVD Recorder

RD-S502

Advantage: This recorder can also use a high-compression video recording mode, and you can also record 2 hours of HDTV content on a DVD-R, too. It is the leading-edge recorder at the cutting-edge of the current era.

Factor 4.46

Value factor 4.11

Environmental Impact Reduction Factor 1.09

Examples of Products for which Factor T is Calculated

Digital Products (Office)

7 Decolorable Toner
e-STUDIO207 e-blue kit

Advantage: Recycling of office paper is the norm but reuse enhances employee's' environmental awareness and leads to the company's contribution to society.

Value factor 0.98
Environmental Impact Reduction Factor 3.53
Factor 3.46

8 Scanner
S1500

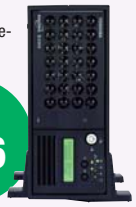
Advantage: This scanner have longer operating life by using LED (instead of fluorescent lamp) and high-durability rollers. It reduces Environmental Load.

Value factor 1.76
Environmental Impact Reduction Factor 2.58
Factor 4.54

6 IA Server
MAGNIA Z330S

Advantage: This server is resistant to vibration and dust because it uses flash drive instead of HDD. It also offers greater energy saving and resource saving

Value factor 1.67
Environmental Impact Reduction Factor 1.47
Factor 2.46



7 Digital MFP
e-STUDIO167

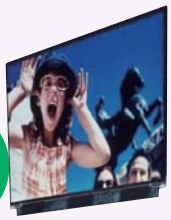
Advantage: The twin halogen lamp fixing system saves energy. Moreover, environmental consciousness is built in throughout the lifecycle, for example by using recycled materials.

Value factor 1.58
Environmental Impact Reduction Factor 1.50
Factor 2.37

11 LCD Module
LTD111 EXCZ

Advantage: Thickness is halved and weight reduced by about 60% compared with the benchmark model thanks to the LED backlight. Another leap forward for LCD displays!

Value factor 1.68
Environmental Impact Reduction Factor 1.27
Factor 2.13



5 Projector
TDP-EW25

Advantage: This projector meets the need for short-throw, large-screen projection. Ingenious technology ensures brightness and vividness.

Value factor 3.76
Environmental Impact Reduction Factor 0.65
Factor 2.45

6 NAND Flash Memory

Advantage: Toshiba-developed NAND flash memory is suitable for mass-storage devices, and moreover, is setting the pace in energy saving, robustness and reliability.

Value factor 8.76
Environmental Impact Reduction Factor 0.52
Factor 4.59

7 Hard Disk Drive
MK3252GSX

Advantage: Small form factor hard disk drives are essential for high-and notebook PCs and slim AV PCs. They are on track to make further gains in terms of capacity, performance and environmental friendliness.

Value factor 3.41
Environmental Impact Reduction Factor 1.09
Factor 3.71

Social Infrastructure (Office • shop • hospital • transportation)

1 LED Downlight
LEDD-66001W-LS1

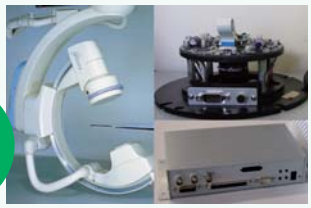
Advantage: This highly efficient LED downlight is the first product from Japanese lighting industry to Achieve the LED lighting performance target set by the government in view of the Kyoto Protocol. It mitigates global warming and is economical same this.

Value factor 1.22
Environmental Impact Reduction Factor 6.63
Factor 8.08

9 CCD Camera System for X-ray Image Intensifier
VP-34019

Advantage: This is used in an X-ray fluoroscope for medical and industrial applications. Efficiency and reliability are greatly enhanced while the parts count is reduced.

Value factor 1.48
Environmental Impact Reduction Factor 1.57
Factor 2.33



11 Retail Facility and Office Air-Conditioner
AIU-AP1405H (Indoor), ROA-AP1405HS (Outdoor)

Advantage: The self-cleaning function, an industry first, ensures the initial energy-saving performance is maintained over the long haul.

Value factor 1.34
Environmental Impact Reduction Factor 2.22
Factor 2.98

1 Products with greatly improved environmental performance

1 Products with greatly improved environmental performance and greatly improved value

1 Products with greatly improved value

8 Cash Registers MA-660

Advantage: This is a user-friendly cash register with excellent ease of viewing, superior design and ease of use. It is also environmentally conscious.

Value factor 1.82

Environmental Impact Reduction Factor 1.25

Factor 2.28

9 Diagnostic Ultrasound System

xarioXG SSA-680

Advantage: This outstandingly compact high-resolution imaging system is not confined to examination rooms, but can also be used for patients in bed in hospital wards. As well as supporting the provision of excellent medical treatment, it saves energy and uses resources efficiently.

Value factor 2.77

Environmental Impact Reduction Factor 1.37

Factor 3.81

10 Inverter Condensing Unit

TAMI130AM-SV, 200AM-SV, 350AM-SV

Advantage: This Condensing Unit minimizes environmental impacts and cuts electricity costs. The elegantly simple energy-saving control design ensures the Condensing Unit is suitable for various systems.

Value factor 1.41

Environmental Impact Reduction Factor 1.43

Factor 2.02

12 Industrial 3CCD Camera

IK-TF9J/9H

Advantage: This ultra-compact and lightweight 3CCD camera is suitable for numerous applications. This environmentally friendly product offers low power consumption and saves resources.

Value factor 2.02

Environmental Impact Reduction Factor 1.20

Factor 2.42

13 Air-source Heat Pump and Chilling Unit

RUA-TBP300IH (N) V-A

Advantage: Thanks to an industry first in the adoption of the highly-efficient refrigerant R410A, this large-sized air cooling chiller helps significantly reduce CO_2 emissions. It also features industry-leading energy saving and a space-saving design.

Value factor 1.50

Environmental Impact Reduction Factor 1.45

Factor 2.18 (2007/2000)

1 Whole body X-ray CT Scanner

Aquilion64 TSX-101A

Advantage: Performance of 64 slices in 0.35seconds means this CT scanner is also suitable for examination of the beating heart. Thanks to energy saving and resource saving, It has great environmental credentials, too.

Value factor 3.25

Environmental Impact Reduction Factor 1.23

Factor 4.01

9 Elevator

SPACEL-EX

Advantage: The cutting-edge technology is hard at work ensuring safety and security. Universal design is adopted for user friendliness and this elevator is environmentally conscious too.

Value factor 1.20

Environmental Impact Reduction Factor 1.00

Factor 1.20

10 Biochemical Analyzer TBA-C16000

Advantage: Reduction of total measurement time by highly efficient examination leads to energy saving and resource saving. It is patient friendly and environmentally conscious.

Value factor 2.39

Environmental Impact Reduction Factor 0.74

Factor 1.77

11 Energy Storage System for Rolling Stock

COB015-A0, COV068-A0

Advantage: A wave of technological innovation is revolutionizing rolling stock. A key advance is that energy is stored and recycled.

Value factor 1.94

Environmental Impact Reduction Factor 1.03

Factor 2.00

13 Industrial Computer

FA3100S model 9000

Advantage: Although the environmental impact factor became worse as a result of greater power consumption due to high-speed CPU, efficient use of resources and protection of the global environmental are emphasized.

Value factor 5.14

Environmental Impact Reduction Factor 0.42

Factor 2.13

Examples of Products for which Factor T is Calculated

① Products with greatly improved environmental performance

1 Products with greatly improved environmental performance and greatly improved value

① Products with greatly improved value

Social Infrastructure (Power • electric-appliance system • component)

⑤ Ceramic Metal Halide Lamp

MT145CHE-W

Advantage: The combination of this new lamp with specially designed fixtures for street lights slashes energy consumption by about 64%, It's brighter too.

Value factor 1.37
Environmental Impact Reduction Factor 3.14
Factor 4.30

⑫ Water-cooled Chiller RUW-TBP series

Advantage: It's a modular chiller whose modules can each be delivered separately and for which upgrading is easy. Enhanced performance cuts environmental impacts and electricity consumption.

Value factor 1.43
Environmental Impact Reduction Factor 1.54
Factor 2.19

⑬ Transformer RCT-N22A

Advantage: With previous transformers a huge amount of energy was wasted this energy-saving transformer reduces CO_2 emissions and contributes greatly to the environment.

Value factor 1.24
Environmental Impact Reduction Factor 1.40
Factor 1.74

⑭ New Rechargeable Battery SCiB™

Advantage: SCiB™ is an excellent new rechargeable battery with outstanding features, such as more than 6,000 times cycle life, rapid charging performance, high-output performance and low-temperature operation, while ensuring higher safety. It does not use any substances that impact on the environment, such as those covered by RoHS.

Value factor 1.36
Environmental Impact Reduction Factor 1.66
Factor 2.27

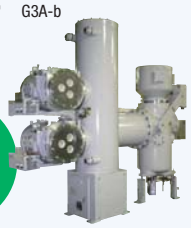
⑭ Traction Motor Totally enclosed fan-cooled motor

Advantage: This motor is environmentally conscious in terms of energy saving, low noise, and minimal maintenance.

Value factor 1.70
Environmental Impact Reduction Factor 1.25
Factor 2.13

⑮ Gas-insulated Switchgear G3A-b

Advantage: The compact design reduces the use of raw materials and other resources while saving energy. This technology is best of breed in the world.



Value factor 1.52
Environmental Impact Reduction Factor 1.18
Factor 1.80

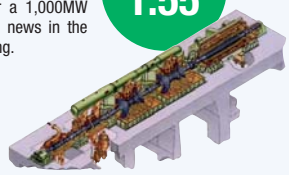
⑯ Turbine Generator

Advantage: High efficiency of 98.8%, the industry's top level, is the result of efforts to contribute to environmental protection by reducing environmental impacts.

Value factor 1.54
Environmental Impact Reduction Factor 1.22
Factor 1.88

⑰ Turbine System

Advantage: This system reduces CO_2 emissions by 900,000 tons per year for a 1,000MW power station. That's good news in the battle against global warming.



Value factor 1.27
Environmental Impact Reduction Factor 1.22
Factor 1.55

⑧ Ceramic Ball Bearings for Wind Power Generator

Advantage: The use of silicon nitride ball bearings instead of conventional steel ones achieves big gains in terms of reliability and resource saving.

Value factor 2.47
Environmental Impact Reduction Factor 1.02
Factor 2.51

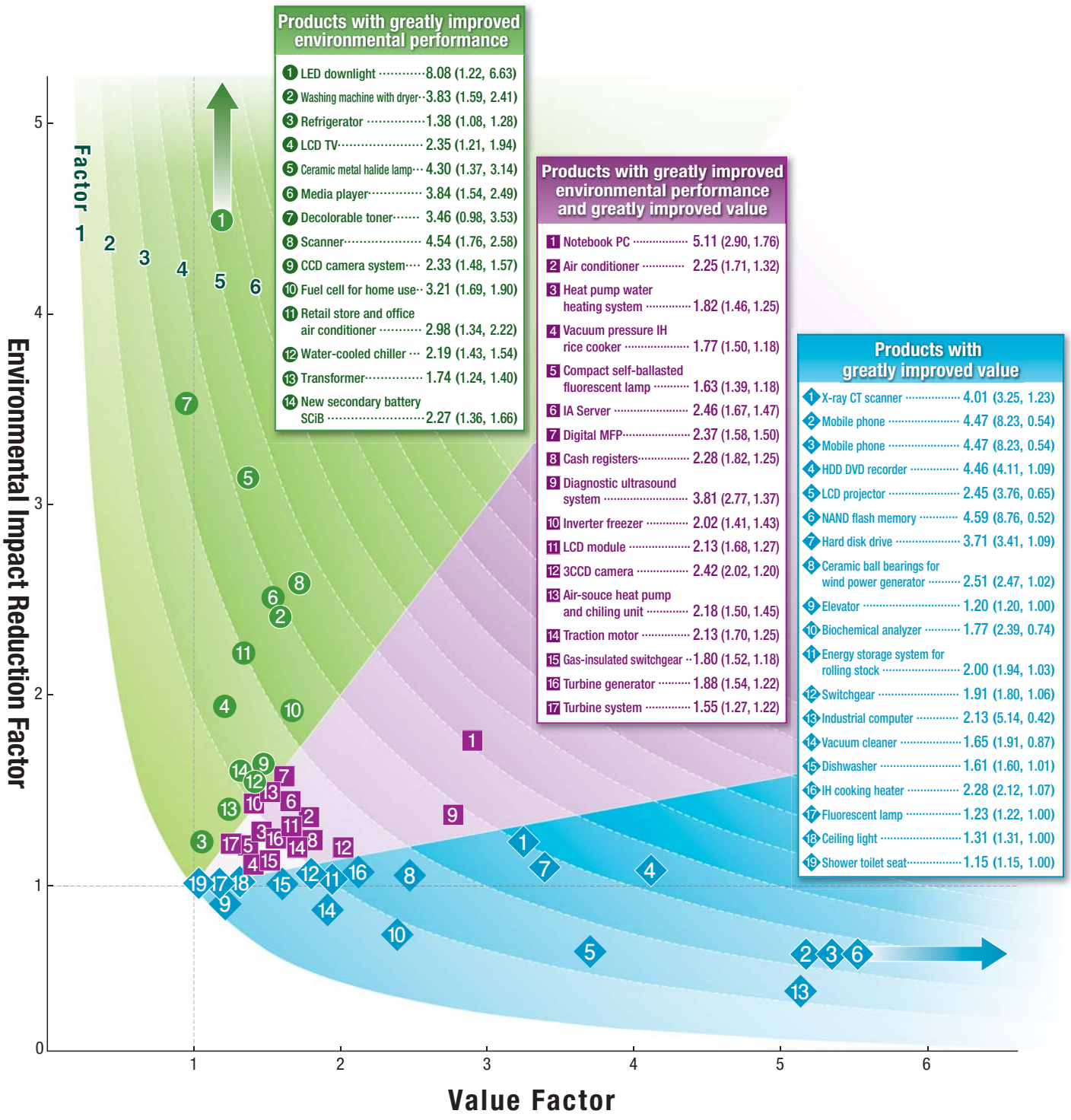
⑫ Switchgear VUHE

Advantage: This compact, lightweight switchgear is environmentally friendly. Generation of specific harmful substances is reduced, CO_2 emissions are reduced and power consumption is reduced.

Value factor 1.80
Environmental Impact Reduction Factor 1.06
Factor 1.91

Shown below are case examples of Toshiba Group's products for which factors have been calculated. According to the slope of each line indicated in the graph in which the value factor is plotted as the horizontal axis and the environmental impact reduction factor as the vertical axis, each product can be classified into products with significantly improved environmental performance, products with significantly improved value, and products with both. The graph indicates the direction in which each product improves as compared with those benchmark products.
By the end of FY2007, factors had been calculated for 80% of all products of the Toshiba Group, and the Group will further strive to increase the penetration of Factor T into all products so that factors can be calculated for them by 2010.

Toshiba Group's products for which factors have been calculated (some examples)



Factor (A) = Value factor (X) × Environmental impact reduction factor (Y): This equation is expressed as A (X, Y).

* Because each numeric value is rounded off to the nearest third decimal place, the value may not always match the "factor", even though the "value factor" is multiplied by the "environmental impact reduction factor".

Eco Process

Ensuring the thorough implementation of environmental management for factories, etc. to minimize the

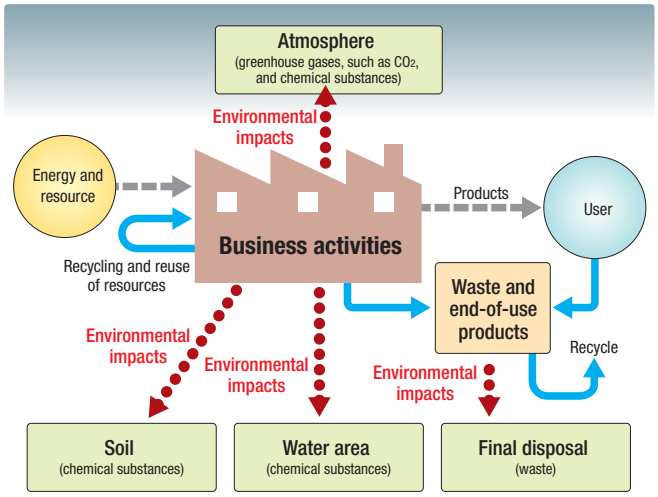
The Toshiba Group has been striving to reduce the environmental impacts that its business activities may have on the global environment. In this section, the report covers the efforts made to reduce environmental impacts generated in its business activities from three perspectives: the mitigation of climate change, management of chemicals and efficient use of resources. To exert these efforts furthermore, the Group has set seven goals in the Fourth Voluntary Environmental Plan to reduce environmental impacts, whereas it has been striving additionally to extend its term until FY2012 from this fiscal year onward to add more target values to the Plan, and to add more reduction targets for the water intake amount to the Plan. Also, the Group plans to set the Factor T process, which comprehensively evaluates the environmental impacts of business activities, to 1.3 in FY2012.

▶ Actual Results as Compared with Targets for FY2007

- Improvement in the Eco-efficiency of Business Processes
  Whereas the target was 1.19, the result was 1.27. (Target achieved)
- Mitigation of Climate Change
  1) Energy-originated CO_2 emissions rate relative to net production output
     Whereas the target was a 30% reduction, the result was a 42% reduction. (Target achieved)
  2) Greenhouse gas emissions (non-CO_2)
     Whereas the target was a 33% reduction, the result was a 35% reduction. (Target achieved)
  3) CO_2 emissions rate associated with product logistics in Japan rate relative to net production output
     Whereas the target was a 35% reduction, the result was a 36% reduction. (Target achieved)
- Management of chemicals
  1) Reduction in the total emissions of chemical substances
     Whereas the target was a 23% reduction, the result was a 14% reduction. (Target not achieved)
- Efficient use of resources
  1) Total amount of waste generated rate relative to net production output
     Whereas the target was a 24% reduction, the result was a 28% reduction. (Target achieved)
  2) Sites achieving zero waste emissions
     Whereas the target was a 46% reduction, the result was a 48% reduction. (Target achieved)
  3) Amount of recycling of end-of-use products
     Whereas the target was a 154% increase, the result was a 155% increase. (Target achieved)

✻ With the new addition of the effective use of water resources to targets for FY2008 onward, more rigorous management will be exercised to reduce CO_2 emissions.

● Environmental impacts resulting from business activities



● Factor T process

$$\text{Factor T process} = \frac{\text{Eco-efficiency of the benchmark year}}{\text{Eco-efficiency of a reference year (FY2000) subject to assessment}}$$

$$\text{Eco-efficiency} = \frac{\text{Sales}}{\Sigma\,\text{Amount of money of environmental impacts (converted value)}}$$

Environmental impacts (Greenhouse gases, chemical substances, and waste) → LIME* → Amount of money

The Factor T process is the ratio of eco-efficiency of the benchmark year relative to the eco-efficiency of a reference year subject to assessment, while the eco-efficiency is the ratio of sales to the total amount of money of the environmental impacts converted based on LIME*. The smaller the environmental impacts and the higher the sales, the greater the eco-efficiency.

✻ LIME (Life-cycle Impact Assessment Method based on Endpoint Modeling): This is the LCIA methodology developed by the National Institute of Advanced Industrial Science and Technology in Japan.

Concept of Reduction in Environmental Impacts

Mitigation of Climate Change — Energy saving
- Reduction in the amounts of energy and greenhouse gas used
- Introduction of highly energy-efficient process and equipment
- Shift to energy with lower carbon emissions and lower-temperature greenhouse gas

Management of Chemicals — Cleanness
- Minimal use of hazardous substances
- Reduction in consumption of chemical substances and their replacement with alternatives
- Appropriate management of the substances to be used

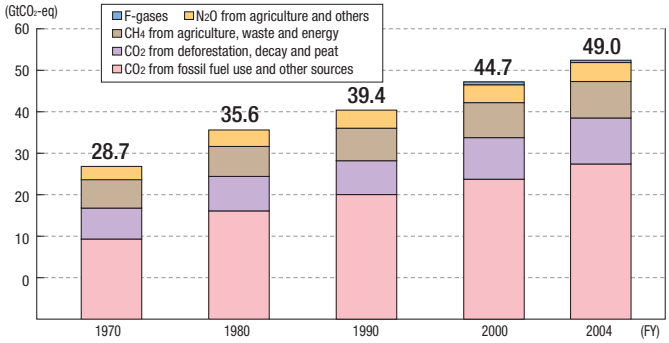
Effective Use of Resources — 3R
- Reduction in the total volume of waste generated
- Reuse of waste
- Recovery and recycling of end-of-use products
- Reduction in the volume of water used and promotion of the recirculation and reuse of water

Striving to Ensure Greenhouse Gas Emissions Peak Out and then Decline

Addressing worldwide and domestic climate change

Climate change have been addressed worldwide; mainly by the United Nations Framework Convention on Climate Change (UNFCCC). The Kyoto Protocol, which specifies the greenhouse gas emission reduction targets that each country must accomplish, was approved in the Third Conference of Parties to the United Nations Framework Convention on Climate Change (COP3) held in 1997, which officially came into force in 2005. Japan has to achieve a greenhouse gas emission reduction target of around 6% on an annual average basis relative to the 1990 standard during the initial commitment period of the Kyoto Protocol, which lasts until 2012 from 2008. Despite this pledge, however, the ratio of greenhouse gas emissions relative to the rate actually implemented under the plan increased by 6.2% in FY2006, hence a full-blown effort is required to reduce the emissions.

Changes in global greenhouse gas emissions

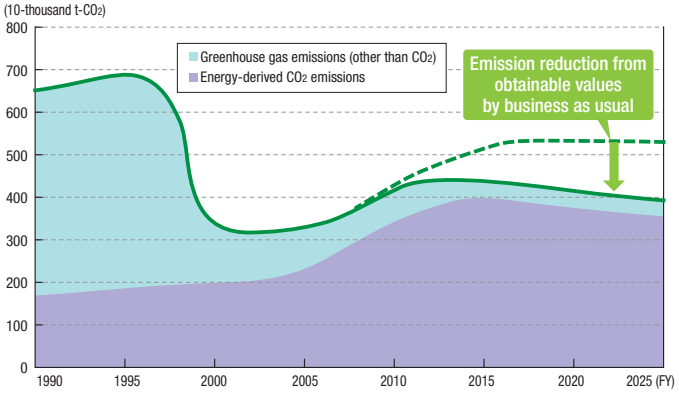


Source: Climate Change 2007; Synthesis Report [Summary for Policy makers]
http://www.ipcc.ch/

Actual Toshiba achievements

In 1990, specified as the reference year by the Kyoto Protocol, other greenhouse gas emissions, excluding CO_2 used to insulate heavy electrical equipment and manufacture semiconductors, accounted for more than 70% of Toshiba Group's total greenhouse gas emissions. In tackling such circumstances between 1995 and 2000, the entire industry made an all-out effort to reduce non-CO_2 greenhouse gas emissions, resulting in a significant reduction of one third or less in comparison to before. To date, and from FY2001 onward, there has been a further decrease in non-CO_2 greenhouse gas emissions.

Changes in greenhouse gas emissions in Toshiba Group*



Trend in long-term vision toward total reduction

As the alarm was sounded in the 4th assessment report issued in 2007 by the Intergovernmental Panel on Climate Change (IPCC), global warming may force the next generation into critical situations. For this reason, moves toward establishing a long-term vision to realize a low-carbon society have intensified in recent years.

During the G8 Hokkaido Toyako Summit held in July 2008, the participants declared and agreed to share their common vision to reduce emissions of global greenhouse gases by at least half by 2050. In Japan, the then prime minister said, in June 2008, in his speech on "Aiming to achieve a low-carbon society in Japan" that current greenhouse gas emissions should be decreased by 60% to 80% by 2050, and that total greenhouse gas emissions worldwide must peak out within the next 10 to 20 years in order to achieve this long-term goal and so on.

Initiatives to be taken in future

Toshiba Group's energy-originated CO_2 emissions have been on the increase as its business has expanded. In the electronic devices & components segment, the Group will continue expanding its business centered on semiconductors in order to meet strong market demand. In the face of this business expansion, there are plans to build new factories; hence greenhouse gas emissions will also increase.

To reduce greenhouse gas emissions, we will preferentially invest more in anti-global warming measures than ever before, and accelerate energy-saving efforts through the construction of clean rooms which pursue energy conservation thoroughly, the installation of abatement systems for greenhouse gases used to manufacture semiconductors and LCD panels, improving the harm removal rate, and the introduction of highly-efficient equipment, etc.

Because greenhouse gas emissions are significantly affected by changes in operational scale, the emphasis has traditionally been put on clearly indicating our reduction efforts via a relative index based on efficiency, including a rate to net production output and so forth. Henceforth, however, it is also important even for the Toshiba Group with the growing industry to reduce the overall environmental impact.

Toshiba Group will continue taking proactive initiatives, as its business expands, by aiming to decrease the increasing greenhouse gas emissions to the greatest extent possible, refrain from increasing the emissions by FY2012, make them peak out at 70% of less than the FY1990 level, and decrease them further by 10% by 2025.

* The scope of the report includes Toshiba Group companies inside and outside Japan and manufacturing/sales processes at both production and non-production facilities. The applicable values are the values achieved until FY2007, and those planned for FY2008 and later fiscal years. In the planned values, CO_2 emission coefficients of electricity until 2020 are expected to decrease. (This presumption is made based on the plan to increase the zero-emission power source rate, which was announced in the "Action plan to achieve a low-carbon society [July 2008]" of the government of Japan.) The obtainable values by business as usual represent expected levels of emissions in case where no reduction measures have been taken. The list of greenhouse gases excluding CO_2 includes methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

Mitigation of Climate Change

Controlling the increase of energy-originated CO_2 emissions

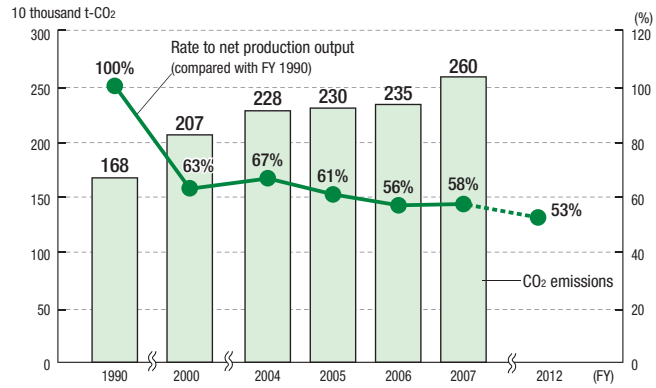
In order to reduce CO_2 emissions as a result of the use of energy, as well as our factories, our laboratories and offices or similar have also been tackling efforts to reduce energy consumption by improving their management and capital investment.

In FY2007, the energy-originated CO_2 emissions of Toshiba Group increased by 11% as compared with the previous fiscal year, which was mainly attributable to newly constructed clean rooms for semiconductor manufacturing. Despite that, we minimized the impact by introducing clean rooms of the energy-saving type.

Although expansion of the semiconductor and LCD businesses is expected to lead to higher energy consumption, we intend to achieve the target by implementing energy-saving measures.

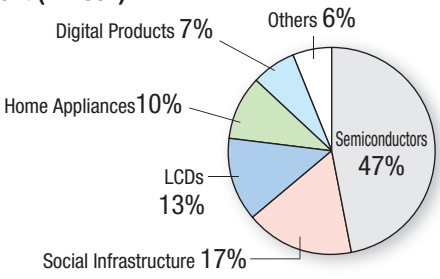
Furthermore, in March 2008, we set out reduction targets relative to the net production output of 45% (decrease of an additional 25% compared with the preceding years' level) for FY2010 and 47% for FY2012 respectively. Both of the reduction targets have been revised upward and the term for the target fiscal years have been extended.

Energy-originated CO_2 Emissions and Rate to Net Production Output

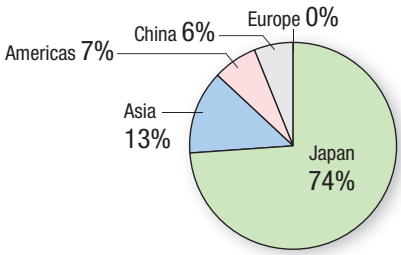


CO_2 emission coefficient: For fuel and heat, it is based on the Law Concerning the Rational Use of Energy and the Law Concerning the Promotion of the Measures to Cope with Global Warming. (A value provided by the supply company is used as the unit heat quantity of city gases.) For domestic electric power, it is based on the data (generating end) provided by the Federation of Electric Power Companies of Japan. For overseas electric power, it is based on the data reported from the Japan Electrical Manufacturers' Association.

Breakdown of Energy-originated CO_2 Emissions by Business Segment (FY2007)



Breakdown of Energy-originated CO_2 Emissions by Region (FY2007)



Reducing Non-CO_2 greenhouse gas emissions

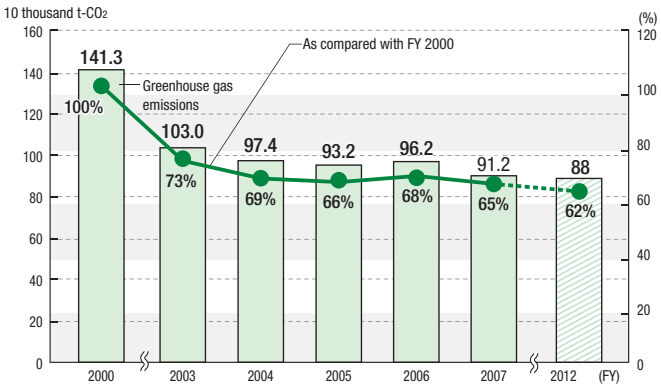
Of all the six kinds of greenhouse gases* to be decreased which are subject to the Kyoto Protocol, we have taken particular measures to deal with fluorocarbons which trigger more severe greenhouse effects by decreasing the amount used, replacing them with harmless alternatives where possible, as well as introducing gas scrubbers which recover and render them harmless, etc.

In FY2007, we reduced emissions of non-CO_2 greenhouse gases by 35% compared with FY2000, installing gas scrubbers at all new production lines whenever they were constructed. We will continue installing gas scrubbers to existing production lines and shifting to the use of alternative gases in order to achieve reduction targets.

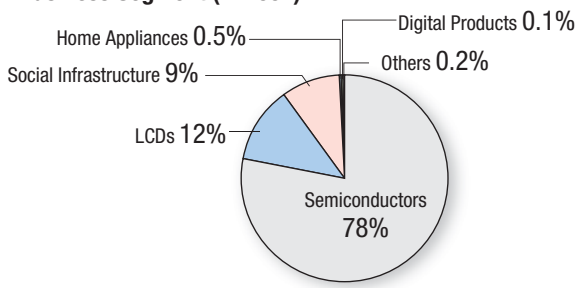
Furthermore, in March 2008, we set out their reduction target rates as 36% (a further 35% decrease compared with the preceding years' level) for FY2010 and 38% for FY2012 respectively. Both the reduction targets have been revised upward, while the term for the target fiscal years has been extended.

* Six kinds of greenhouse gases to be decreased; all of which are subject to the Kyoto Protocol: Carbon dioxide (CO_2), Methane (CH_4), Nitrous oxide (N_2O) [= Dinitrogen monooxide], Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur hexafluoride (SF_6). PFCs and HFCs are collectively called "fluorocarbons".

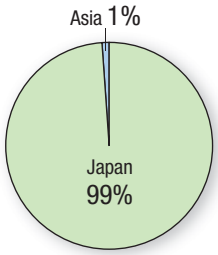
Non-CO_2 Greenhouse Gas Emissions



Breakdown of Non-CO_2 Greenhouse Gas Emissions by Business Segment (FY2007)



Breakdown of Non-CO_2 Greenhouse Gas Emissions by Region (FY2007)



Reducing CO_2 Emissions Associated with Product Logistics in Japan

Each company of Toshiba Group endeavors to pursue energy saving during product logistics in collaboration with Toshiba Logistics Corp.

CO_2 emissions associated with product logistics in fiscal 2007 increased 3% owing to an increase in production volume, as compared with the fiscal previous year. Despite that, however, the fiscal year targets in terms of unit requirements were achieved, thanks to the implementation of various measures, such as the optimization of modes of transport, including a modal shift, improvement in load efficiency, and the rational deployment of distribution bases.

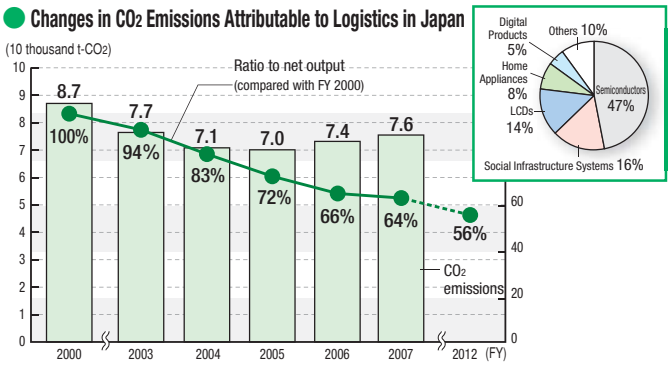
Furthermore, in March 2008, we set out targets for a reduction in the rate of net production output as 40% (a further 25% decrease as compared with the preceding years' level) for FY2010 and 44% for FY2012 respectively. Both reduction targets have been revised upward and the term of the target fiscal years has been extended.

[CO_2 emissions in overseas and international logistics (estimated values for FY2007)]

Comprehending logistics data concerning domestic logistics in each overseas country and the international logistics of Toshiba Group, we have calculated the estimated values of CO_2 emissions as follows:

- Domestic logistics in overseas countries: 60 thousand t-CO_2
- International logistics: 622 thousand t-CO_2
- Total: 682 thousand t-CO_2

Changes in CO_2 Emissions Attributable to Logistics in Japan



Using Renewable Energy

In order to utilize renewable energy, in January 2005, Toshiba Group entered into a contract to purchase electricity generated using renewable energy under a green power certificate system*. In accordance with the contract, at least 4% of the electricity demand at the Toshiba headquarters building has been fulfilled by biomass power generation. Also, within Toshiba Information Systems (UK) Ltd., all the electric power used in its factories has been supplied by green electricity since October 2007.

* Green power certificate system: A system under which a purchaser is supplied with electricity produced by renewable energy power generation and a green power certificate is issued to the purchaser.

As part of long-term efforts to mitigate climate change, the local subsidiary in Malaysia has started installing solar power generation equipment in its several facilities, focusing attention on the effective use of the same. The power demand for the external advertisement board and the environmental section bulletin board has been provided by this equipment.

Outside advertisement


Environmental section bulletin board

Emissions Trading, CDM, etc.

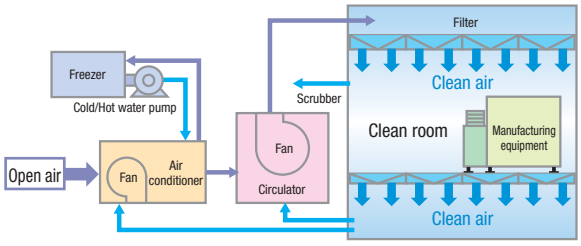
Toshiba Group has laid out and promoted a CO_2 emission reduction plan, which is in compliance with the voluntary environmental plan of the industry, and thus believes that emissions trading is not necessary. However, as emissions trading in Japan may be adopted in the context of improving legal systems in future, the Group has formulated a structure capable of dealing with changes of the times while also monitoring trends in administrative authorities and industrial organizations. In addition, the Group has taken a capital stake in the Japan Greenhouse Gas Reduction Fund in order to enhance the probability of achieving the targets of the voluntary environmental plan. Furthermore, the Group plans to acquire an emission credit through the CDM (Clean Development Mechanism) project.

Case Study 1

◆Energy Saving by Reduction of the Clean Room Air Circulation Flow

Oita Operations, Toshiba Corp.

Efforts to reduce energy for air conditioning have been made at clean rooms in semiconductor factories. In the Oita Operations, a reduction of 1,811t-CO_2/year has been attained through settings varying according to the equipment thermal load of the air circulation flow and control performed while monitoring particles in the wafer transfer area. To achieve this, the Oita Operations won the Director-General of the Agency for Natural Resources and Energy Award, in the "Successful Case of Energy Conservation in Factory & Building for Fiscal 2007".

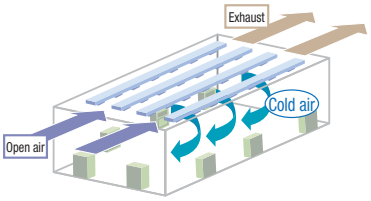


Case Study 2

◆Energy Conservation at the TV Production Base in China

Toshiba Dalian Television Corporation

At Toshiba Dalian Television Corporation, which is Toshiba's TV production base in China, CO_2 emissions decreased by 88% owing to the air conditioning of the newly introduced production line, via an intake of cold open air into the intra-room air conditioning for the heat application line during wintertime.



Case Study 3

◆Case Example of a Reduction in CO_2 Emissions Associated with Logistics

Toshiba Carrier Corp.

Toshiba Carrier Corp. has changed the transportation means for air conditioners shipped to the Hokkaido and Kyushu regions from its Fuji Operations to transportation by railroad and ship as opposed to conventional transportation by truck, which, in turn, has led to a reduction of 753 tons of CO_2 emissions a year. Moreover, in the Fuchu Complex of Toshiba Corp., the transportation means for electric equipment related to rolling stock, such as motors and control devices, has been changed to railway containers (of which 238 have actually been used to date) from transportation by truck, resulting in an annual reduction of 56 tons of CO_2 emissions.

Management of Chemicals

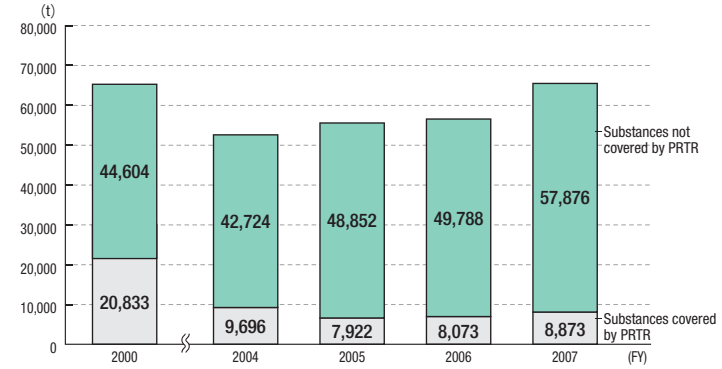
Reducing the Release of Chemicals

For "substances subject to reduction in use" in accordance with Toshiba's criteria, we are focusing on reducing their release as it has a greater effect directly on the environment. Measures implemented in fiscal 2007 included the substitution of materials, which results from a change in the cleaning process, the installation of a VOC (Volatile Organic Compound) abatement system in the painting process, and the substitution of cleaning fluid in the semiconductor manufacturing processes. However, because the amount of substances handled by Toshiba increased as the production volume increased more than expected, we failed to achieve the targeted 23% reduction in emissions for the fiscal year as compared with the FY2000 level. In FY2008, we intend to further promote the installation of abatement systems in the manufacturing processes from which considerable emissions are generated, replacement of existing substances with alternatives, even in those manufacturing processes generating limited emissions, and change in existing processes.

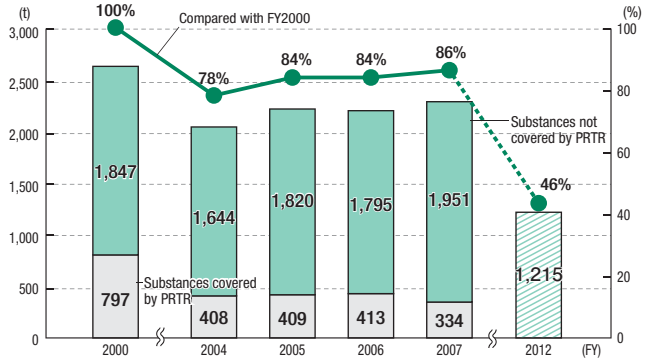
By business segment, the semiconductor and social infrastructure sectors account for 80% or more of the total amount handled, while the home appliance and semiconductor sectors account for nearly 80% of the total amount released. By region, it can be seen that 70% of emissions are derived from Japan. Of all the substances subject to a reduction in use, many of the higher-ranking substances handled are those used for chemical reaction and waste water treatment, while many of the other higher-ranking substances released are those contained in paints and cleaning solvents.

It can be seen from the rate of substances covered by PRTR to be released by destination that the amount to be removed by neutralization/absorption processes, etc. and the amount to be consumed together with products account for 43% and 32%, respectively, which comprise the majority of the rate, while only about 4% of the total substances are released into the atmosphere and public water systems.

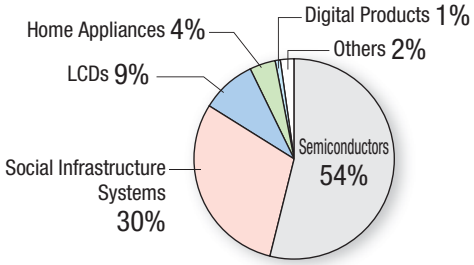
Changes in the amount of substances handled subject to reduction



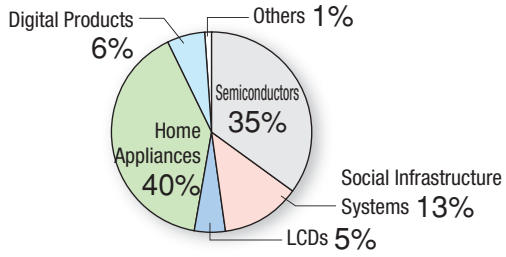
Changes in the amount released of substances subject to reduction



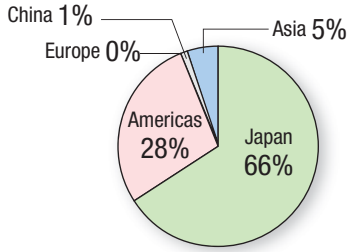
Breakdown of the amount handled of substances subject to reduction by business segment (FY2007)



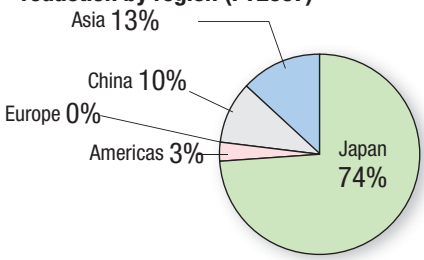
Breakdown of the amount released of substances subject to reduction by business segment (FY2007)



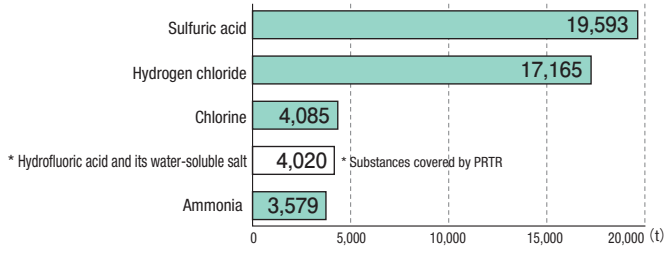
Breakdown of the amount handled of substances subject to reduction by region (FY2007)



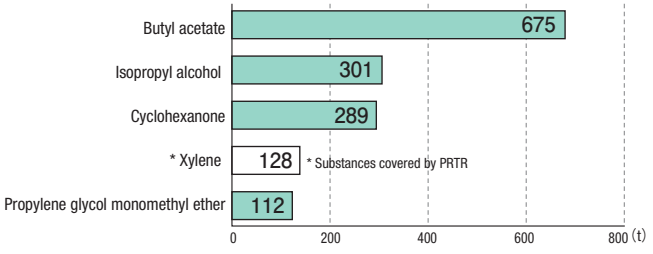
Breakdown of the amount released of substances subject to reduction by region (FY2007)



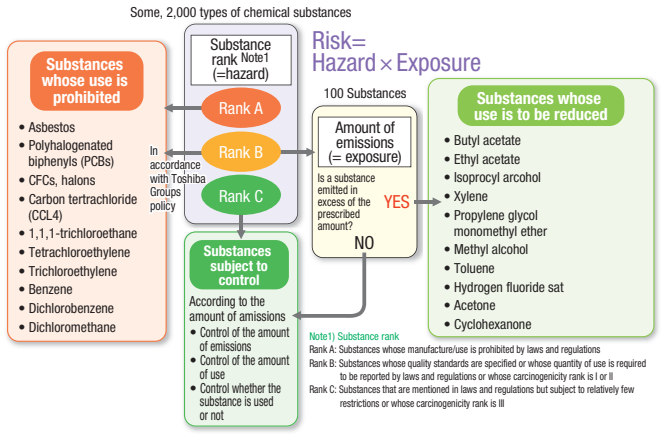
Amount handled of top 5 substances subject to reduction (FY2007)



Amount released of top 5 substances subject to reduction (FY2007)



Conceptual Framework of Substance Ranking and Control Classifications



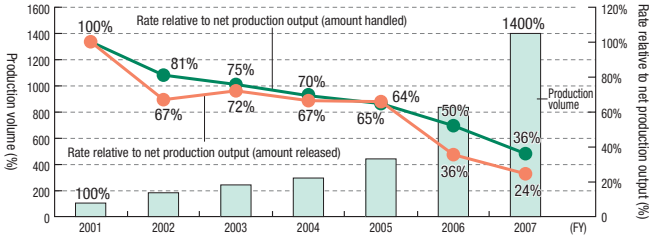
Toshiba Group's use of chemical substances is based on three fundamental policies: avoid use of toxic substances to the maximum extent possible; promote reduction and substitution to the maximum extent possible; and subject use to appropriate controls. Accordingly, we classify chemical substances into three categories: prohibition of use; reduction of emissions; and control of use, and apply control in accordance with Toshiba's Chemical Substances Control Rules. The figure below shows our conceptual framework for substance ranking and control classifications. Some 2,000 types of chemical substances are classified into three ranks, A, B and C, based on the level of restriction under environmental laws and regulations and the potential hazard they pose, as measured by carcinogenicity data, etc. A control classification (prohibition of use, reduction of emissions, control of use) for each substance is determined based on the risk associated with the substance. We adopt a quasi-risk assessment approach in which the risk posed by a substance is expressed as the product of the hazard and the exposure level.

Case Study 1

Management of Chemical Substances and Communications in the Semiconductor Factory Won the Special Commendation, 4th PRTR Award 2007

Yokkaichi Operations, Toshiba Corp.

The Yokkaichi Operations manufactures flash memory chips for SD memory cards, etc., wherein control of the increase in emissions resulting from the increased production volume increase was a critical issue. As specific emission reduction measures, the Operations has steadily "decreased the amount handled for manufacturing processes and products", "reduced emissions through the introduction of waste water recovery equipment" and so on, resulting in a 36% reduction in the amount handled and a 24% reduction in emissions in FY2007 (equivalent to the rate of net production output, as compared with FY2001). It also has carried out impact investigations of the surrounding environment, regularly attended liaison conferences with local residents since its foundation and proactive efforts have been made to disclose activity on environmental data, etc.

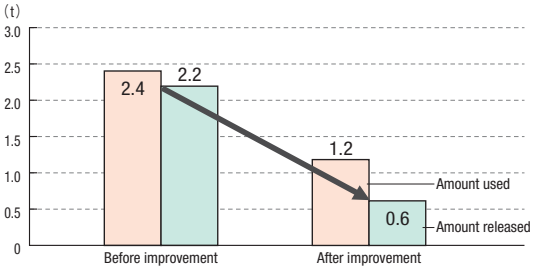


Case Study 2

Reduction in the Amount of Cleaning Agents used at a Production Site in China

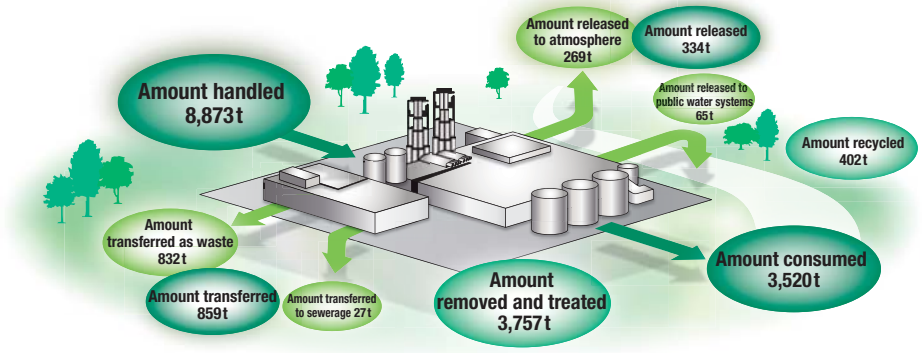
Toshiba Dalian Television Corporation

While 2.4 tons a year of isopropyl alcohol was previously consumed to clean components in the television manufacturing processes, the corporation has succeeded in decreasing this to 1.2 tons a year, thanks to improvements in the cleaning processes and the substitution of cleaning agents. This has translated into an emission reduction to 0.6 tons from 2.2 tons, namely a decrease of 1.6 tons.



PRTR-based material balance

Shown below is the balance of the total material volume based on the PRTR Law in Toshiba Group. (For details, see pages 66 onward.)



- The amount consumed refers to the amount which is transferred outside, subject to the conditions that the "substances covered by PRTR" are changed into other substances due to reaction and contained in or accompanied with products.
- The amount removed and treated refers to the amount where the "substances covered by PRTR" are changed into other substances due to incineration, neutralization, decomposition, reaction and treatment, etc. outside the operation sites.
- Landfill disposal in operation sites (stable, controlled, isolated) is equivalent to the amount released. The amount released into public water sewerage is categorized as the amount transferred.
- The difference between the amounts transferred and recycled is determined based on whether the applicable materials are valuable or valueless respectively. Accordingly, if a request is made whereby the materials should be treated by another business operator, based on the condition that such treatment be provided for a price, even for recycling purposes, the amount of such material is the amount transferred as waste.

Effective Use of Resources

Reduction in the Total Amount of Waste Generated and Amount of Final Disposal

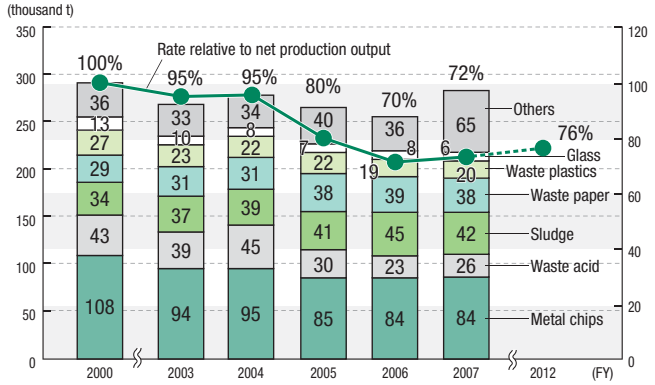
The total amount of waste generated (rate to net production output) was 72% (base: FY2000), which decreased to 28% whereas the target reduction rate was 24%. However, the total amount increased by about 27 thousand tons over the previous year's level. This was due to the expansion of the semiconductor and social infrastructure businesses. Although the amount of waste generated is expected to increase in line with business expansion, we will endeavor to reduce the total volume generated by decreasing the number of components in use, and reducing the processing of products, etc. thanks to improvements in manufacturing and treatment processes.

The amount of final disposal decreased by 400 tons over the level of the previous year, thanks to thorough sorting as well as the development of reuse applications, etc. The final disposal rate was 4.5%, a 0.7 point lower than the previous year's level. Because the social infrastructure systems account for about half the amount of total final disposal by business segment, we face the challenge of mounting renewed efforts to reduce their disposal volume. Also, the ratio of site achieving zero emission was 48%, whereas the ratio for FY2007 was 46%.

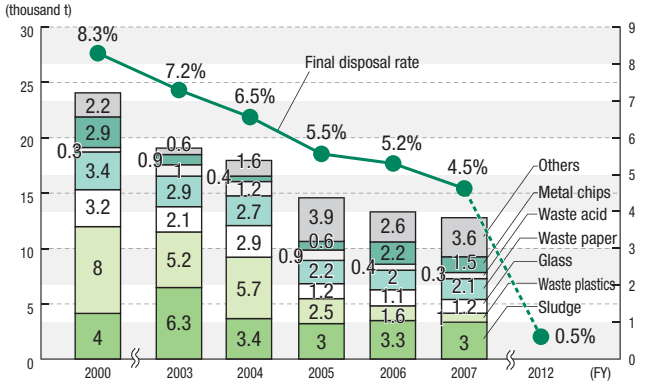
Of all the recycled by-products, 93% of the total recycled quantity of metal chips, sludge and so forth was used for material recycling, while 7% of the same was used as thermal recycling effectively. We will continue enhancing the quality of recycling by expanding the material recycling rate, etc.

To implement the 4th VPE, we will also take various measures to reduce the total volume of waste generated and achieve zero emissions of waste at all sites.

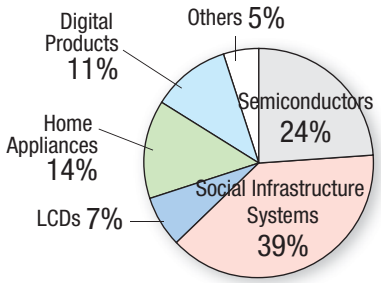
Total Amount of Waste Generated



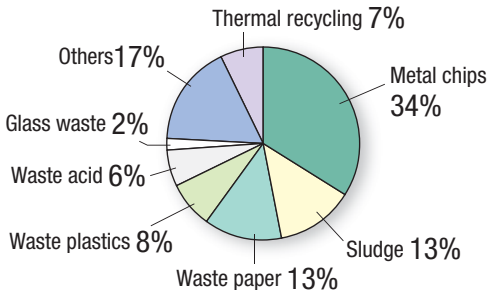
Quantity of Waste for Final Disposal and Final Disposal Rate



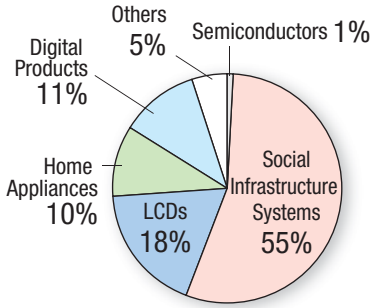
Breakdown of the total volume of waste generated by business segment (FY2007)



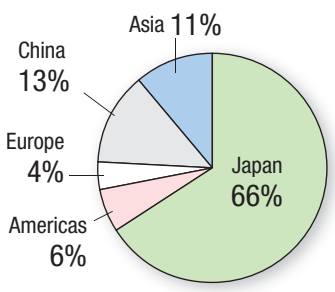
Breakdown of the amount recycled (243,526 tons)



Breakdown of the quantity of waste for final disposal by business segment (FY2007)



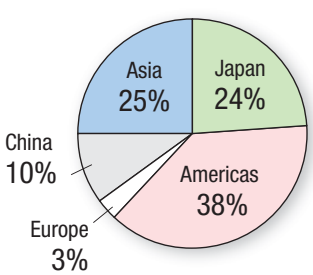
Breakdown of the total volume of waste generated by region (FY2007)



The HARISON TOSHIBA LIGHTING Corp. has already enabled glasses to be recycled, through separation of the waste containing mercury of the cullet which is generated in the CCFL manufacturing processes for LCD backlight from the glasses. Previously, cullets on which mercury is deposited were subcontracted to industrial waste disposal dealers for transportation and disposal as mercury-tainted waste, although the corporation has reduced the amount of waste, such as that containing mercury, by 60% on average by sorting them out into mercury and glass cullets using its own equipment.

Separation and classification equipment manufactured in-house (It sorts waste into metal, glass and mercury.)

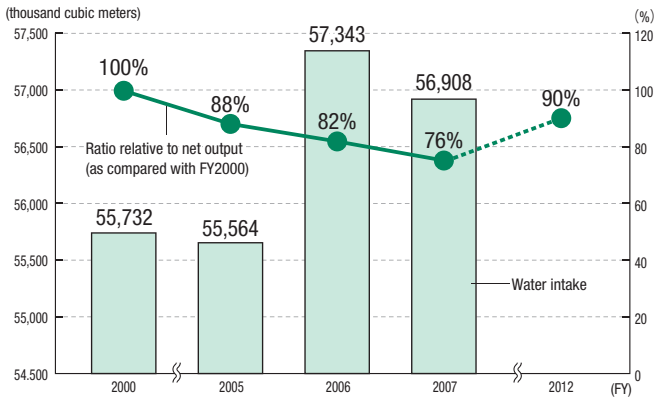
Breakdown of the quantity of waste for final disposal by region (FY2007)



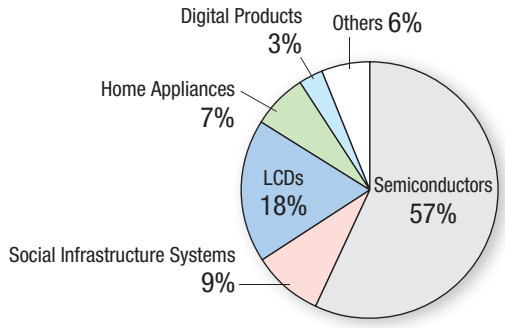
Optimizing the Use of Water Resources

Having positioned the intake of water resources as a new indicator since FY2006, we are striving to decrease it. In FY2007, the water intake rate relative to the net production output resulted in 76%, whereas the target rate was 93% (base year: 2000). Because the semiconductor business accounts for about half the total volume of water intake by business segment, we are engaging in various activities to reduce the intake of water resources, including the reuse of the same through the introduction of wastewater treatment and recovery equipment and a reduction in the volume of water used through a dried exhaust gas treatment process, especially at semiconductor manufacturing bases where considerable water is used. Moreover, the water intake in Japan accounts for about 90% of the total intake by region. On the other hand, we constantly proceed to reduce water intake in regions lacking water resources by setting individual goals for each of such regions.

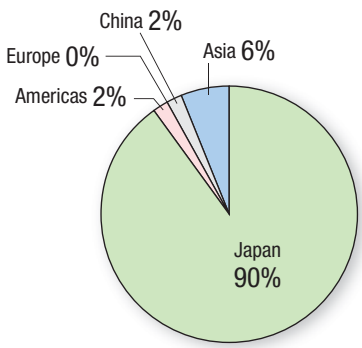
Changes in the water intake and rate to net production output



Breakdown of water intake by business segment (FY2007)



Breakdown of water intake by region (FY2007)



Case Study 1

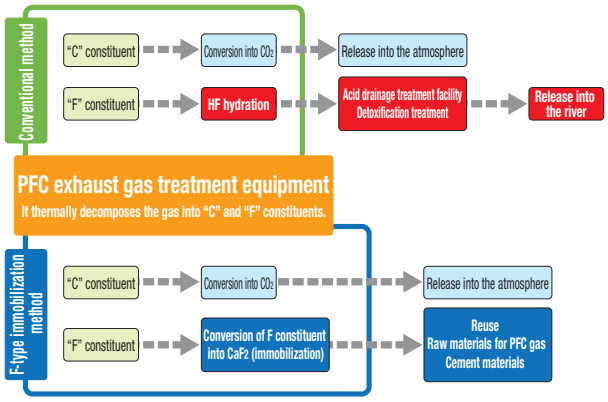
Zero Emission of Acid Drainage from PFC Gas Treatment Equipment

Yokkaichi Operations, Toshiba Corp.

Since the Yokkaichi Operations uses PFC* which is a greenhouse gas, the PFC gas emissions are decomposed and processed there to mitigate global warming. Because fluorine components after decomposing PFC were conventionally dissolved in water to ensure proper treatment, the Operations were forced to decrease acid drainage and service water to reduce the environmental burdens. To address this problem, a dry-type exhaust gas treatment equipment has been introduced to adopt a water-free treatment system, in which the fluorine components after PFC decomposition are immobilized in the form of calcium fluoride through a chemical reaction. Consequently, the amount of acid drainage was significantly decreased (900m^3/day), and likewise the service water intake.

*PFC: PerFluoro Compounds

Zero emission of acid drainage from PFC exhaust gas treatment equipment



Case Study 2

Improvement in the Water Usage Rate at the Local Subsidiary in China

Toshiba Semiconductor (Wuxi) Co., Ltd.

The Wuxi Company has implemented the reuse of waste water discharged from the pure water manufacturing process using a reverse osmosis membrane and EDI* with a view to improving the reuse rate of water resources. Despite the fact that a considerable amount of waster water was previously discharged after passing the reverse osmosis membrane and EDI, the Company has succeeded in reducing the quantity of service water by returning a certain amount of post-EDI-treatment waste water to a tank after treating the water with a first-class filter. This has resulted in a reduction of about 19 thousand tons in the volume of water used, compared with the previous year.

* EDI: Electro De-Ionization

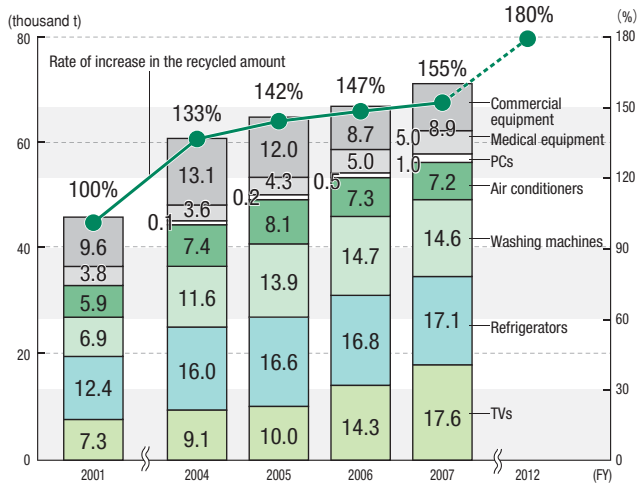
Data on the use of the water resources

Recycling of End-of-Use Products

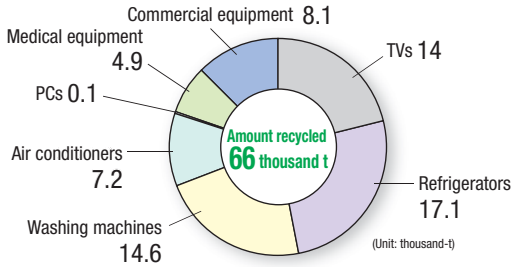
Increasing the Amount of End-of-Use Products Recycled

In FY2007, we recovered approximately 92 thousand tons and recycled about 71 thousand tons of products, both in Japan and overseas. With respect to the target for FY2007 (namely to increase the rate of weight recycled to 154% based on comparison with FY2001), we have increased it to 155% and achieved the target. Incidentally, the ratio of weight recycled relative to the amount sold in FY2007 for four types of home appliances (TVs, refrigerators, washing machines and air conditioners) and personal computers was about 12%. By the last target fiscal year (FY2012), we are set to achieve the target through the full-fledged introduction of recovery as well as an increase in the recovered amounts in overseas bases in Europe as well as in the United States, Australia and elsewhere. In an effort to achieve this target, we continue to increase the recovered and recycled amounts for each product of the Toshiba Group and expand the scope of recovery schemes at our overseas bases.

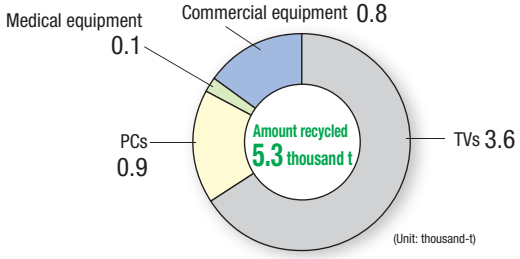
Amount of Materials Recycled from End-of-use Products (worldwide)



Breakdown of the amount of materials recycled from end-of-use products in Japan (FY2007)



Breakdown of the amount of materials recycled from end-of-use products in overseas countries (FY2007)

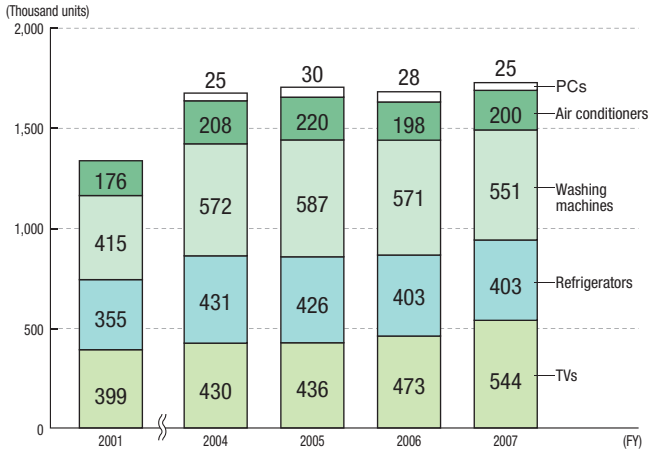


Expanding the Recycling of End-of-Use Home Appliances and PCs in Japan

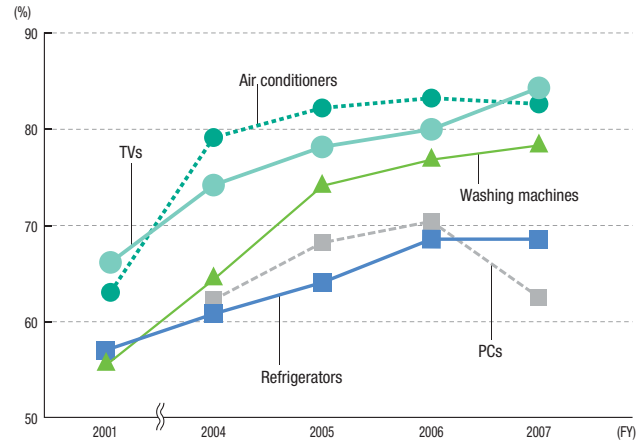
As part of our commitments to promote the recycling of end-of-use products, we are focusing on developing recycling technologies to facilitate the use of resources recovered from end-of-use products. Consequently, plastic parts used for tubs of washing machines and refrigerators vegetable containers and shelves are recovered and classified according to their material properties before being crushed into pieces so that they can be recycled as materials for new product parts. These recycled materials are mainly applied in base plates for washing machines/dryers, dish washers/driers and fixtures for printed circuit boards for refrigerators, while other plastics are recycled as raw materials for items including building materials, sundry articles and so forth.

The recovery and recycling of individual products are performed in accordance with laws and regulations. Recovery, transportation and recycling of end-of-use home appliances in Japan are stipulated by the Home Appliance Recycling Law. In fiscal 2007, Toshiba collected 1.70 million units of end-of-use home appliances, accounting for 14% of the total number of units collected nationwide, which is a level almost equivalent to that of the previous fiscal year. We are also continuously recycling end-of-use personal computers discharged by businesses and homes. In fiscal 2007, Toshiba collected 25,000 end-of-use notebook PCs and recycled them, which is a level almost equivalent to that of the previous year.

Number of Units of Home Appliances (4 Products) and PCs Collected (in Japan)



Recycling Rates of Home Appliances (4 Products) and PCs (in Japan)



Case Study 1

◆Recycling of End-of-Use Electronic and Electric Equipment

TERM Corporation

Toshiba Group has formulated its own framework of a recovery scheme, not only for products stipulated by the Home Appliance Recycling Law but also for other end-of-use equipment, such as medical equipment, POS systems and automatic ticket gates/ticket-vending machine for railway services, while promoting the recycling of the same. The Group has installed a new crushing/sorting line this year to enhance processing efficiency, while simultaneously striving to upgrade the quality of recovered items (iron, non-ferrous metal, etc.).

● MRI* Dismantling site

* MRI (Magnetic Resonance Imaging): It is diagnostic imaging apparatus for medical use which scans the internal human torso using a magnetic field and radio waves without using X-rays.

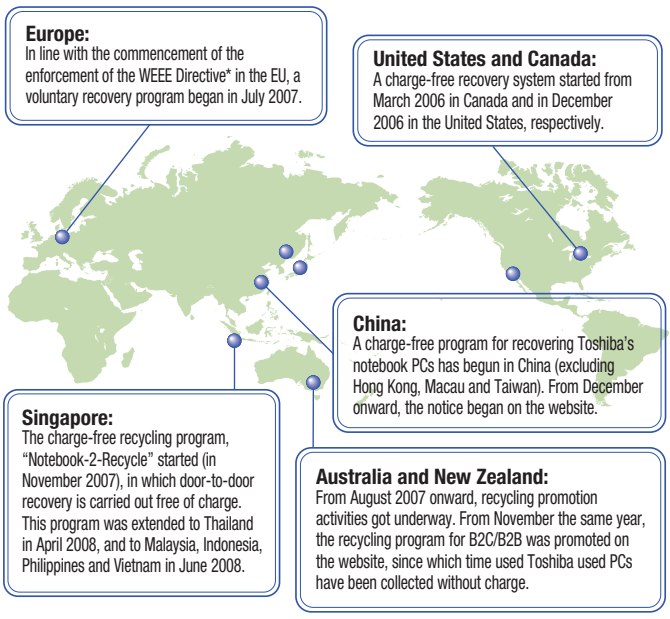
Case Study 2

◆Global Promotion for Recycling PC Products

Personal Computer & Network Company

In accordance with the basic policies for recycling Toshiba's PC products, the Toshiba Group has provided a recycling program for all regions where the products are sold in order to decrease environmental impacts in its business processes and products in harmony with the Earth. This program has already been applied to 80% or more of the volume of shipments. In future, there are plans to ensure the PC recycling activities cover Cambodia, Myanmar and Pakistan as well.

● Operating areas of the PC recycling program



* WEEE Directive: It is the directive (Waste Electrical and Electronic Equipment Directive) concerning waste electrical and electronic equipment in the European Union (EU).

Case Study 3

◆Approach to Recycling End-of-Use Home Appliances

Nishinihon Kaden Recycle Corporation

Toshiba Group has introduced a separation technology for waste material selection based on differences in the specific gravity and removal of metals, even for mixed plastic waste, for which material recycling was previously difficult, shifting from landfill disposal to a valuable waste approach. Closely monitoring trends in the latest material recycling technology, Toshiba Group will continue striving to develop and introduce an optimum recycling technology and expand the scope of material recycling.

● Sorting out plastics, using a metal removing device

< Prior to sorting >

Plastics commingle with metals, such as wiring materials.

< After sorting >

Only plastics are sorted, from which metals are removed.

Case Study 4

◆Coestablishment of a Recycling Company in the United States

In September 2007, Toshiba Group established a recycling management company (MRM Company*) in the United States through joint capital investment with Panasonic Corporation (Former Matsushita Electric Industrial Co., Ltd.) and Sharp Corporation, embarking on the recovery and recycling of TVs, CRTPCs and monitors, etc. in Minnesota from the end of the month. In accordance with the implementation of legislative actions by individual states in the United States, Toshiba Group will extend the application areas to other states on a step by step basis with a view toward providing highly convenient recycling opportunities to U.S. consumers.

* MRM Company: Electronic Manufacturers Recycling Management Company, LLC

● Recycled PCBs, plastics, glasses, etc.

PCBs

Glasses

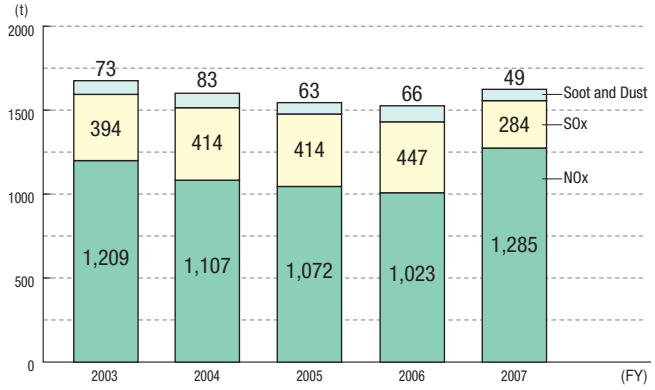
Plastics

Environmental Management for Factories

Preventing Air and Water Pollution

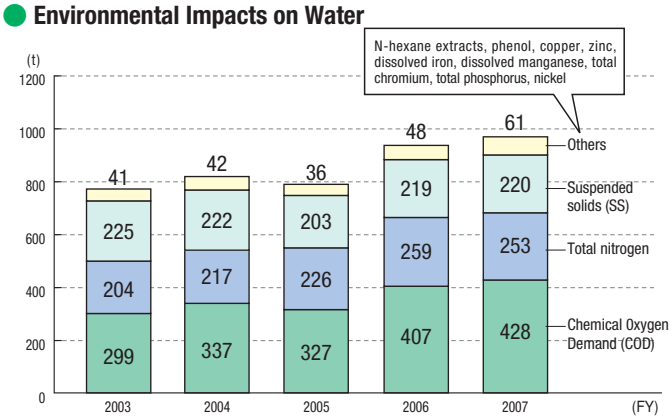
We are working to apply appropriate control based on the data on environmental impacts due to sulfur oxides (SOx), nitrogen oxides (NOx) and water contaminants, which are the main causes of air pollution, and wastewater. Each of our operation sites has set its own voluntary standards to ensure compliance with the regulatory environmental standards. The total amount changes according to fluctuations in production, etc.

Air Environmental Impacts



In accordance with the Air Pollution Control Law, the environmental impacts are calculated in terms of the environmental load amount by multiplying each concentration by each exhaust amount (excluding those of Sigma Power Ariake and Sigma Power Tsuchiura).

Environmental Impacts on Water



In accordance with the Water Pollution Control Law, the environmental impacts are calculated as the environmental load amounts by multiplying each concentration by each volume of water discharged.

Case Study

◆Advanced Treatment for Industrial Wastewater

Oita Operations, Toshiba Corp.

The Oita Operations takes in and uses industrial water for semiconductor manufacturing, which comes from clear waters from the Ono River, one of the cleanest streams in Japan. The used industrial water is categorized into detailed types for advanced treatment and treated such that its quality will become equivalent to the original waters to such an extent that it can even support carp, following which it will be returned to the river.

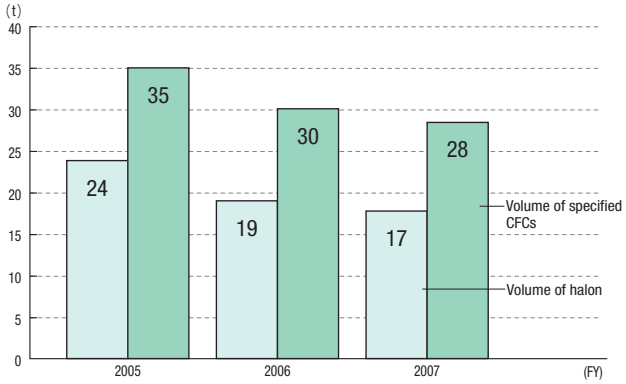
Wastewater treatment facility

Management of Ozone-depleting Substances

In the past, we used chlorofluorocarbons (CFCs), trichloroethane and other ozone-depleting substances for parts cleaning and dry etching for semiconductors, as refrigerants for refrigerators and blowing agents for insulation materials. Regarding specified CFCs, we ceased their use for cleaning in 1993 and those contained in products in 1995.

Meanwhile, 1,397 air-conditioning systems containing 17 tons of CFCs and 739 fire extinguishing systems containing 28 tons of halon are still in use. Every facility containing CFCs/halon bears a sticker indicating the fact. When such facilities are no longer used, the CFCs/halon are recovered and treated appropriately. However, the volume of CFCs/halon contained in the facilities has been gradually decreasing year after year because of proper treatment for the same. In fiscal 2007, 2.0 tons of CFCs and 2.2 tons of halon were recovered and treated.

Changes in the volume of CFCs/halon contained in our facilities



PCB Storage and Control

Since 1972 when the manufacturing of products using polychlorinated biphenyls (PCBs) ceased in Japan, some Toshiba operations in Japan have retained PCBs and products containing PCBs in storage under strict control in accordance with the Waste Management and Public Cleansing Law and the Law Concerning Special Measures Against PCB Waste. In addition to the mandatory storage rules, installation of dykes and double containers (receiver tanks) ensures safety.

To treat PCBs and products containing PCBs as soon as possible, Toshiba has completed the early registration of products containing PCBs in storage with the Japan Environmental Safety Corporation, a special company wholly owned by the government engaged in the treatment of PCBs. Toshiba has registered about 7,600 units of transformers and condensers for systematic treatment henceforth, including those of affiliated companies.

PCB storage

Preventing Pollution and Purifying Soil and Groundwater

As well as monitoring soil and groundwater pollution at factory sites and executing purification, the Toshiba Group is implementing fail-safe measures for facilities to prevent pollution by chemical substances and reduce risk to prevent the pollution of soil and groundwater.

Toshiba Group is also conducting purification and monitoring of pollution caused by volatile organic compounds (VOCs) at 15 sites where pollution was detected during an investigation covering all sites. The Group has executed the recovery and purification of VOCs in groundwater primarily via water-pumping techniques, and 1,288 kg was recovered in FY2007. It also arranged tours of factories, including the purification facilities, and other facilities for residents of neighboring communities, to further promote environmental communication with them.

To alleviate pollution caused by chemical substances and reduce the associated risk, Toshiba has stipulated its unique "Structural Design Guidelines" for leakage prevention for eight types of environmentally related facilities, including waste water treatment facilities. These guidelines are continuously improved, and also applied to overseas sites. In fiscal 2007, the conformity ratio with these Structural Design Guidelines at all Toshiba sites in Japan was 98%, compared to 92% at all sites of affiliated companies in Japan.

Toshiba Group is conducting a pollution risk assessment of overseas sites, based on the history of the use of the land, and an environmental assessment when purchasing new sites or changing the use of existing sites. Our policy is to ensure compliance with the laws and regulations of the country in which the site is located. In countries where a regulatory framework is not established, we apply stringent voluntary standards.

Purification of Volatile Organic Compounds in Soil and Groundwater

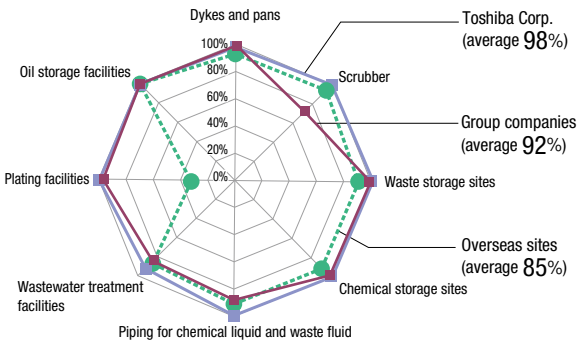
Site	Location	Progress	Purification method*1	Amount recovered*2 (kg)
Fukaya Operations	Fukaya, Saitama prefecture	Transition to monitoring*3	A	
Toshiba Electric Appliances Co., Ltd.	Maebashi, Gunma prefecture	Transition to monitoring	D, F	
Site of the former Yokohama Operations, Asia Electronics Inc.	Yokohama, Kanagawa prefecture	Transition to monitoring	A, E, G	
Komukai Operations	Kawasaki, Kanagawa prefecture	Purification in progress	A, G	120.9
Microelectronics Center	Kawasaki, Kanagawa prefecture	Purification in progress	A	11.3
Taishi Area of Himeji Operations	Taishi-cho, Ibo-gun, Hyogo	Work in progress (North area)	D, F, G	
		Purification in progress	A	390.2
Oita Operations	Oita, Oita prefecture	Purification in progress	A	2.5
Fuji Operations, Toshiba Carrier Corp.	Fuji, Shizuoka prefecture	Purification in progress	A, B	259.7
Tsuyama Operations, Toyo Carrier Engineering Co., Ltd.	Tsuyama, Okayama prefecture	Purification in progress	A, B	5.0
Osaka Works, Toshiba HA Products Co., Ltd.	Ibaraki, Osaka	Purification in progress	A, F	0.1
Site of the former Yokohama Works, Toshiba Components Co., Ltd.	Yokohama, Kanagawa prefecture	Purification in progress	A	42.2
Kawamata Seiki Co., Ltd.	Kawamata-machi, Date-gun, Fukushima prefecture	Purification in progress	A	0.1
Kitashiba Electric Co., Ltd.	Fukushima, Fukushima prefecture	Purification in progress	A	0.6
Site of the former Kawasaki Works, Toshiba Shomei Precision Co., Ltd.	Kawasaki, Kanagawa prefecture	Purification in progress	A, B, F	3.0
Kimitsu Operations, Toshiba Components Co., Ltd.	Kimitsu, Chiba prefecture	Purification in progress	A, B	452.3

*1 Purification method... A: Groundwater pumping B: Soil gas suction method C: Reduction decomposition method (fine iron permeation piles) D: Oxidation decomposition method E: Interception containment method F: Removal by excavating soil G: Bio-active method

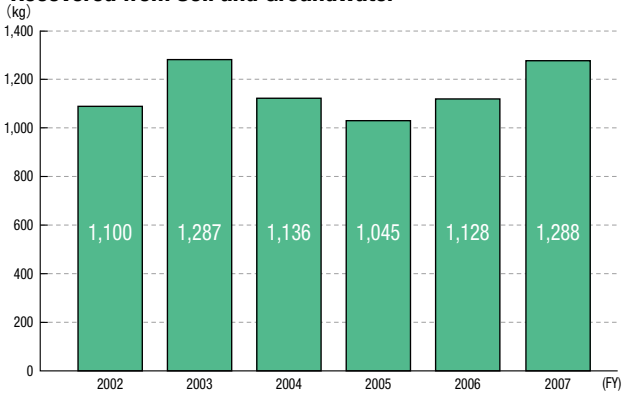
*2 Amount recovered.... Amount recovered during the period from April 2005 to March 2006

*3 Transition to monitoring: Upon completion of work or the purification in progress, the site is now under follow-up monitoring.

Conformity Ratios with the Structural Design Guidelines (FY2007)



Changes in the Amount of Volatile Organic Compounds Recovered from Soil and Groundwater



Eco Program

Many actions are implemented in the Eco Program, which emphasizes communication and solutions.

In communication activities, we actively provide information on the environment through mass media and promote interaction with members of local communities.
Via advertisements and exhibitions, we actively broadcast messages concerning the environment. Each site conducts various activities, including inviting stakeholders to show the efforts of Toshiba Group for the environment, giving classes about the environment in elementary schools and holding lecture meetings about the environment. Moreover, we also provide numerous solutions for the environment in the form of hardware, software and services.
We will propose technologies to analyze and assessment of environmental impacts and resolve the problem of pollutants that impact on the environment, throughout entire product life cycles. We handle everything from comprehensive environmental impacts evaluations to the management of chemical substances contained in products.
The Toshiba Group will continuously engage in new actions by promoting communication and providing solutions.

Communication

Varied environmental activities

Varied communication with stakeholders, including lecture meetings, classes about the environment, volunteer activities and workshops.

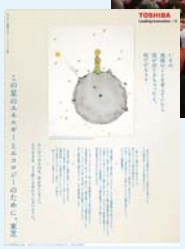
Stakeholder communication (“Eco-venture class” in collaboration with Environment goo)

Lecture meeting

Advertisements and exhibitions

Advertisements and exhibitions about the environment will be actively conducted using the keywords “energy” and “ecology”.

Exhibition (CEATEC JAPAN)



Advertisement (“The Little Prince”)

The effort to create forests and conserve biodiversity

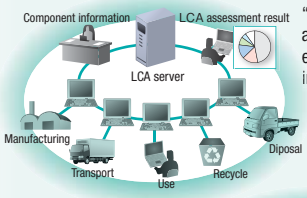
In addition to its business, the Toshiba Group is promoting conservation of the natural environment through the 1.5 million tree-planting project as well as efforts toward biodiversity conservation.

Biodiversity

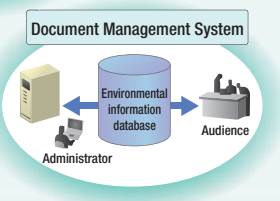
Solution

Software

We provide solutions to improve the operational efficiency of the assessment of environmental impacts software package “Easy-LCA” and the Environmental ISO Document Management System and promote environmentally conscious products design.



“Easy-LCA” assessment of environmental impacts tool



Environment ISO Document Management System

Hardware

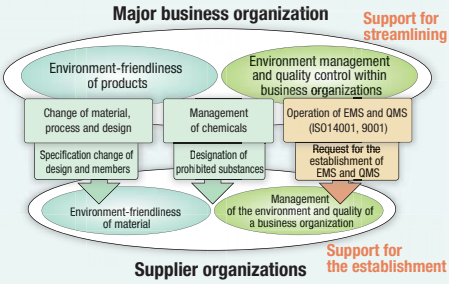
We provide solutions in the form of countermeasures for environmental impacts substances, including the transportation and disposal of PCBs, groundwater purification, sewerage cleanup and carbon dioxide absorbents.

Cleanup technology for PCB-contaminated soil “Geosteam”

Carbon dioxide absorbent

Services

We provide comprehensive environmental solutions and take action for environmental analysis.



Comprehensive environmental solution consultant

Environmental Activities

Toshiba Group is engaged in various communication activities. In Japan, we make the most of the Environment Month (June), 3R Promotion Month (October) and Energy-Saving Month (February) for our proactive action; both within and outside the company. In addition, we are engaging in various other activities abroad such as holding events and participating in regional activities.

Activities in the Environment Month (June)

During the Environment Month, each site engages in many activities, such as lecture meetings on environment-related issues by famous people, communication about the environment with the local community and tours of environmentally conscious facilities. The Fuchu complex, Toshiba Corp., participates in the Fuchu Environmental Festa every year to show its efforts in terms of environmental conservation by displaying panels and distributing brochures. During the event, the Fuchu complex also distributes leaf molds made from leaves having fallen within the site.

Activities in the 3R Promotion Month (October)

During the 3R Promotion Month, each site engages in various activities, including volunteer activities for waste cleanup, waste-related facility tours and communication activities with the local community to promote measures and policies for the effective utilization of resources. Though waste cleanup activity is performed regularly at each site, the scope of the activity was expanded to areas around the site in October. We keep our surrounding areas clean out of consideration for visitors.

Activities in the Energy-Saving Month (February)

In the Energy-Saving Month, each site engages in activities to promote energy saving, such as energy-saving patrols and energy consuming facility tours. Yokkaichi Operations, Toshiba Corp. holds a tour of the Kawagoe heat power plant of Chubu Electric Power Co. Inc. Through a lecture on energy-saving measures from the energy supplier, the confidential relationship between supplier and consumer can be improved.

Overseas activities (China)

Toshiba Semiconductor (Wuxi) Co., Ltd. regularly engages in information exchanges with the environmental agency of the government. It receives explanations concerning the current environmental administration in China and introduces its own environmental activities in order to establish a confidential relationship with the government.

Overseas activities (Asia)

Philippine Operations, Toshiba Information Equipment Co., Ltd. annually assembled an organization to perform the “Cleanup Operation (cleanup activity)” in order to contribute and help resolve the waste problem that is intensifying with economic and population growth. This improves the environmental awareness of employees and promotes streetscape.

Overseas activities (North America)

Toshiba of Canada Limited engages in various activities on the days labeled “Days for environmental education for employees”. It also strives in other areas such as supporting the launch of Boy and Girl Scout troops and park cleanup activities by employees in order to contribute to the local community.

Overseas activities (Europe)

Plymouth Operations of Toshiba Information Systems (UK) Ltd. annually hold various events on-site on the Environment Day (June 5th). Through the environmental activities held within the site, an introduction to ways to recycle household waste and elaborate events, such as the distribution of energy-saving electric bulbs as gifts and quizzes on environmental issues, communication with local residents can be enhanced.

Environmental Advertisement

Toshiba Group issues various messages to stakeholders through newspapers, magazines and the Web. In a new series of advertisements for fiscal 2007, we used the novel "The Little Prince" to show how we are striving to help mitigation of climate change with the catch phrase "Energy and Ecology". In addition, we held an environment school in which parents and children can join to learn about the environment. For domestic appliances, we used the new catch phrase "eco-style" to publicize our environmentally aware products

TV Commercials

We use the catch phrase "eco-style" in TV commercials, which means home appliances that can contribute to energy saving at home.

Air conditioners
(broadcast from October, 2007)

Bulb-style fluorescent lamp
(broadcast from October, 2007)

Series advertising "The Little Prince" (placed in newspapers and magazines)

Prologue
(August, 2007)

Power generation version
(August, 2007)

Energy saving plant version
(September, 2007)

Energy saving air conditioning system version (October, 2007)

Liquid crystal television version
(November, 2007)

Illumination lamp version
(December, 2007)

Customer's comment version
(January, 2008)

Geothermal generation
(March, 2008)

An environment school in which parents and children can join to learn about the environment.

We held an experience-based environment school for parents and children to show them the nature of global environmental issues and how Toshiba Group is striving to handle them. In this school, participants were able to deepen their understanding of the environment through the table talk of famous people and various experiments.

The table talk of famous people

Experience-based education

Held at Tokyo International Forum, November, 2007

An introduction to the products and activities

The Toshiba Group introduces its environmentally conscious products and environmental activities in plants by communicating the passion of employees who engage in environmental activities in the Group.

February, 2008
Environmental activities in Oita operations

March, 2008
Environmentally aware TV

Exhibitions

Toshiba Group actively transmits messages concerning environmental problems in various exhibitions. We will strive to improve the group's environmental management via direct contacts with stakeholders.

● **Major exhibitions held by the Toshiba Group and exhibitions where the group makes presentations**

The names of exhibitions and forums held by the Toshiba Group	Place	Period
Toshiba Life Designing Collection 2007	Tokyo, Osaka	Aug. & Sep. 2007
TERM General Exhibition	Kanagawa	Sep. 2007
Toshiba Tohoku Branch Exhibition	Miyagi	Oct. 2007
Toshiba Lighting and Technology Technospark 2007	Kanagawa	Oct. 2007
Toshiba Energy-Saving and Environmental Technology Forum	Beijing, China	Nov. 2007
The 7th Toshiba Energy Forum	Tokyo	Nov. 2007
Toshiba Solution Fair 2007	Tokyo	Nov. 2007
The Manufacturing Engineering Fair of the Corporate Manufacturing Engineering Center, Toshiba Corp.	Kanagawa	Nov. 2007
The Meeting to report the results of the Power and Industrial Systems Research and Development Center	Kanagawa	Nov. 2007
The Corporate Research & Development Center, Toshiba Corp. Exhibition 2007	Kanagawa	Nov. 2007
The Strategic Technology Exhibition of the Toshiba Consumer Marketing Group	Tokyo	Nov. 2007
The Toshiba Solutions Environment Forum	Tokyo	Dec. 2007
The 17th Toshiba Group Environmental Exhibition	Tokyo	Mar. 2008
The Environmental Security Exhibition of Kobe	Kobe	Mar. 2008
The Toshiba Fukaya Exhibition	Saitama	Mar. 2008
The name of exhibitions and forums	**Place**	**Period**
2007 Electrical Construction Equipment and Materials Fair	Tokyo	May 2007
Wireless Japan 2007	Tokyo	Jul. 2007
Sewage Works Exhibition 2007 Tokyo	Tokyo	Jul. 2007
Energy Solution & Thermal Storage Fair 2007	Tokyo	Jul. 2007
The Consumer Electronics Exhibition IFA 2007	Berlin, Germany	Sep. 2007
CEATEC JAPAN 2007	Chiba	Nov. 2007
Eco-Products 2007	Tokyo	Dec. 2007
CES2008	Las Vegas, U.S.A.	Jan. 2008
The 4th Eco-Products International Exhibition	Hanoi, Vietnam	Mar. 2008

September, 2007 IFA2007
The environmental vision of the Toshiba Group and environmentally conscious products such as TVs and PCs were shown.

December, 2007 Eco-Products 2007
Environmentally conscious products were exhibited in terms of imagined journeys to the "energy-producing country", "a country where energy is consumed in the city" and "a country where energy is consumed at home".

January, 2008 CES2008
The environmentally conscious products such as TV and PCs.
In addition, the EPEAT Gold PC model and recycled TVs and PCs are showm.

March, 2008 The 4th Eco-Products International Exhibition
Not only consumer products but also products for social infrastructure and electronic devices were also exhibited at ASEAN.

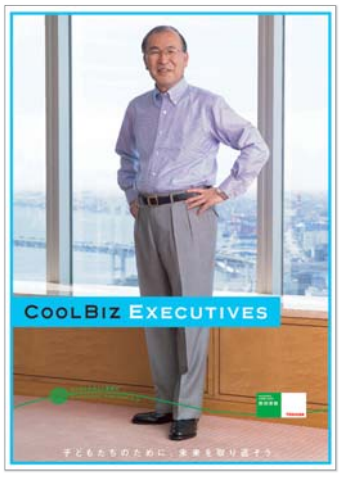
March, 2008 The 17th Toshiba Group Environmental Exhibition
The exhibitions were classified into two approaches (energy and eco-products) and two actions (Eco-process and Eco-program) to promote the Environmental Vision 2050.

Participation in the “Team Minus 6%” Campaign

The national campaign “Team Minus 6%” was launched in April, 2005; featuring Japanese people striving to accomplish the goal of the Kyoto Protocol. About 150 domestic organizations of Toshiba Group participated in the campaign as team members and actively conduct activities such as “Light-Down”, “Cool Biz” and utilization of the environmental enlightenment logo (for example, “Hello! Environmental Technologies”). Furthermore, to improve the environmental awareness of the families of employees, we encourage the active utilization of the environmental housekeeping books by the same. We continue to conduct environmental activities, even in fiscal 2008.

“Cool Biz” campaign.

In fiscal 2007, President Nishida himself participated in the “Cool Biz” campaign. We actively promote this campaign within Toshiba Group (setting the room temperature to 28°C in summer, which is considered adequate, to be). The “Cool Biz” posters were displayed on the wall of the buildings of Toshiba Group to request the assistance of employees and visitors.



The “Cool Biz” poster
(depicting president Nishida)

Promoting the environmental housekeeping books.

Toshiba Group participates in the “Eco-family” campaign of the Ministry of the Environment to improve the environmental awareness of employees and willingly introduces the environmental housekeeping books. By March, 2008, 30,000 families from the Group had participated in the campaign. According to the points obtained from the campaign, the Group as a whole engages in the 1.5 million tree-planting project. During fiscal 2007, we planted 3,000 trees in the Mt. Fuji Children’s World in March, 2008.

“Minister for the Environment in our Home” campaign (Eco-family)

Environmental housekeeping books
CO_2 reduction planting

“Light-Down” (June and November)

Toshiba Group participated in the “Ring of a Million People for CO_2 Reduction”, “Light-Down 2007 - Black Illumination -” campaign.

Toshiba Group agreed with and participated in the “Ring of a Million People for CO_2 Reduction” campaign to mitigation of climate change that was held by the Ministry of the Environment from June 22 (the summer solstice) to 24, 2007. A total of 13,880 kWh electricity was reduced at 52 places in Japan during the campaign. This amount is equivalent to the amount of electricity consumed over 4 years by the average family in Japan.

Toshiba Group agreed with the nationwide activity of the Junior Eco-Club named “Ecological Action Big Campaign” and conducted the “Light-Down” campaign.

We saved a total of 4,149 kWh electricity during the period from six pm to midnight on November 3, 2007 at 42 places in Japan. This amount is approximately equivalent to the amount of electricity consumed over 13 months by the average family in Japan.

The rooftop neon of the Ito Pia Hamarikyu building (Minato Ward, Tokyo)

“Team Minus 6%” enlightenment logo

Toshiba Group actively utilizes the mark to enlighten the public on environmental issues. Valid enlightening marks such as the “Team Minus 6%” logo are used in our catalogs. In particular, in fiscal 2007, we promoted the utilization of the marks “Reduce 1kg of CO_2 daily per capita!” and “Energy-Saving Home Electronics Forum”. We launched the “Reduce 1kg of CO_2 daily per capita!” web site to provide environmentally conscious products as presents for customers who conducted environmentally aware behavior. In addition, for the Energy-Saving Home Electronics Forum, we registered as a member of the forum to ensure active cooperation.

“Team Minus 6%” mark

“Hello! Environmental Technologies” mark

“Reduce 1kg of CO_2 daily per capita!” mark

“Energy-Saving Home Electronics Forum” mark

Communication with Stakeholders

Toshiba Group hopes to promote communication with stakeholders in various ways and build solid relationships with them. In fiscal 2007, we held the "Eco-Venture Class" and "Environment Open Lecture". Moreover, plants and overseas offices actively conducted elaborate communication activities and we also hold workshops to improve the communication skills of the personnel in charge of the environmental communication in the Group.

The "Eco-Venture Class"

We held a new style workshop, combining "experience in a nature-style workshop" and a "workshop held within the Toshiba facilities"; featuring the joint participation of parents and children. In the "experience in nature style workshop", the participants learned the importance of the environment by coming into contact with nature. In the "workshop held within the Toshiba facilities", we let the participants review their experience in nature and introduced related Toshiba products to show our environmental activities.

The veins of the earth - Examine the native environment of the river
(Doshi river in Sagamihara City, Kanagawa prefecture)

Creative Hand Made Life-style
(Kamiongata-machi, Hachioji City, Tokyo)

The "Environment Open Lecture"

We held a new style open lecture, where both the instructor and participants joined to consider the environment and energy. After the lecture, free discussions were held between the facilitators and instructor and between the participants. Everyone felt united in the lecture.

Mr. Yoshio Tsukio
(Professor emeritus at Tokyo University)
The way to live happily by reducing energy consumption

Mr. Akira Ikegami (Freelance journalist)
Is corn food or fuel?

The workshop

The employees in Toshiba Group participated in the overnight "Environmental Communication workshop" across boundaries within the group. Akin to Kiyosato, we reaffirmed our mission, established horizontal and vertical communication networks and improved environmental communication skills. Based on experiences in the workshop, we continue to improve communication skills with stakeholders, both in and outside the Group.

Environmental Learning with the Environmental Management Game

The Nature Workshop to refine the senses

Our domestic plants and overseas offices

Community-based communication activities with stakeholders are conducted by our domestic plants and overseas offices.

The efforts of Oita Operations, Toshiba Corp.

Lectures are regularly conducted on demand for elementary schools in the city. Various styles of lectures are given, such as experience-based experiments, in order to explain the importance of the global environment in a simple manner.

Oita Operations, Toshiba Corp.
Lecture on demand

The efforts of Toshiba Solutions Corporation

Because its offices are based in Fuchu City, Tokyo, environmental forums are regularly held by famous people to show its gratitude to the city residents. In addition, the president himself explained its efforts for the environment. It conducts various community-based activities.

Toshiba Solutions Corporation
The Environmental Forum of Fuchu City

The efforts of the Toshiba HA Products Mexico

It opens the office for employees and their family members on holidays to hold facility tours and environmental lectures concerning the global warming problem and specific prevention measures for the same.

Toshiba HA Products Mexico
Environmental lecture for the employees and their family members

The 1.5 million Tree-planting Project of Toshiba Group

The Toshiba Group is promoting the "1.5 million Tree-planting Project" campaign toward 2025, the 150th year of business of the Group.
The Group as a whole is working for the campaign as part of the CSR activities to contribute to the mitigation of climate change beyond our business domain.
In Japan, we will plant 500,000 trees mainly for sites including Tokyo, Shizuoka, Kyoto and Oita. Elsewhere, we will conduct maintenance activity for forests with a total of 1 million trees; mainly for sites in Asia and North America.
In the "1.5 million Tree-planting Project" campaign, through tree planting and growing activities in cooperation with local governments, NGOs and NPOs, we contribute to conserving the global environment and the biodiversity and cultivation of water sources and promote education to make people love nature.
Forests not only play an important role in the conservation of the global environment but also give people peace and richness of mind. The Toshiba Group hopes to give people in the world peace and richness of mind and also give the same to children who will bear the earth of the future through forest creation activities.

The "Education of Forests" program

Toshiba Group provides opportunities to get in contact with nature by holding various lecture meetings, training sessions and nature trails to make people love nature and cherish the global environment.

- Holding training sessions for nature observation instructors
- Holding nature trails
- Holding various lecture meetings

Nature trails

Case examples

The employees of Toshiba Group have leadership to promote forest creation activities in each area.

The "1.5 million Tree-planting Project" campaign by the Toshiba Corporation, Oita Operations	We signed an agreement for forest maintenance with Oita prefecture and the Oita forestry cooperative. Over the next five years, we will bear the costs of maintaining the 7.1 hectare forest in Yufuin-cho, Yufu City, Oita prefecture. 3,300 trees were planted in April, 2008.
The Toshiba (Ontake) planting program for the "Company Forest of Tokyo (Tokyo Kigyo-No-Mori)" campaign	On May 26th, volunteer Toshiba employees planted 1,500 trees in the Ontake district of Ome City as the first company forest as part of the Tokyo metropolitan government campaign to create forests with little pollen.
The forest maintenance for Mt. Fuji Children's World in Shizuoka Prefecture	In March 2008, we signed the "Supporter for the Forest of the Future in Shizuoka Agreement" to maintain a forest of 24 hectares within the site of Mt. Fuji Children's World at the foot of Mt. Fuji for 5 years and have conducted maintenance activity for 4 hectares of the same. The family members of Toshiba employees and 285 volunteer community residents planted 3,000 trees.

The "1.5 million Tree-planting Project" campaign by the Toshiba Corporation Oita Operations

The Toshiba planting program for the "Company Forest of Tokyo" campaign.

The working tour in the Ocher Plateau in China	In April 2007, we donated 6,000 baby trees for the tree-planting program in the Ocher Plateau in China and planted 1,000 trees during the 5 night, 6 day volunteer tour.
Tree-planting activities in Thailand	The employees of the Toshiba Thailand Group participated annually in tree-planting activities for planting to protect the mangrove forests.
Tree planting activities in India	A program in which we will plant 40,000 trees in Mysore, in cooperation with OISCA International. 10,000 trees were planted in fiscal 2007.
Tree planting activities in the mountainous North Luzon region in the Philippines	In cooperation with the Cordillera Green Network (CGN), which is an NGO in the Philippines, we conducted planting. In fiscal 2007, with the local residents of Hapao village and the Cabayan district, we planted 24,000 trees.
Tree planting activities in Vietnam (Hanoi)	In June 2008, the planting of 1,000 trees was conducted, featuring the participation of 18 employees of Toshiba Group. The same planting event will also be conducted in Ho Chi Minh City in the future.
Planting and cleaning activity for the Molib coast	The Malaysia Toshiba Group conducted planting and cleaning activity for the Molib coast in collaboration with Selangor state, in which employees and about 120 community residents participated.

India: Tree planting activity

Malaysia: Tree planting in the Morib coast

150万本の森づくり
人と、地球の、明日のために。東芝グループ

Southwest of the Yokohama Complex, Toshiba Corp., there is a lagoon that is a part of the effluent channel of the treated water disposed of from the factory (disposal of the process and lives of the employees) of Toshiba Materials and rainwater. The lagoon has a surface area of 4,000 square meters and a storage capacity of 2,500 cubic meters and its prominent role is of a place to monitor water quality, a water storage pond for emergencies and a living space for various lives.

Though the lagoon was originally an experimental pond created in 1977 for the purpose of researching advanced treatment of the discharged water, it was also enlarged for use as treatment for the total effluent of the plant district (currently the site of Toshiba Materials Co., Ltd.) and water storage during emergencies and prolonged its existence as a lagoon.

However, the drainage volume of Toshiba Materials has dramatically decreased, due to the change in the business structure in recent years and the residence time of the discharged water in the lagoon has become longer. Consequently, the nitrogen, phosphorus and activization of the photosynthesis in the lagoon has caused the quality of the water to decline, due to the pH increase and turbidity.

As countermeasures, the surface area and storage capacity of the lagoon were decreased and extensive improvement work to change the shape and facilitate the inflow of water was conducted in 2005. This has thus allowed it to be maintained as a living space for various creatures to date.

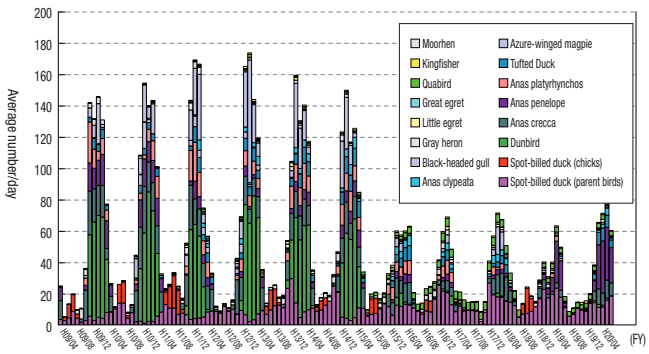
Currently the lagoon housing the factory effluent is not only a living space for various lives but also a recreation area for employees. We will continue to preserve the lagoon and contribute to conserve biodiversity.

Water quality monitoring and ornithoscopy are conducted continuously.

Because the lagoon is the final destination of the discharged water of Toshiba Materials, appropriate water quality management is necessary. For that purpose, the pH, COD and nitrogen concentration is monitored continuously 24 hours a day with automatic measuring instruments.

In addition, every weekday morning, ornithoscopy is conducted. Recently, the number of the incoming birds has declined for several reasons, such as the nearby expressway.

The number of incoming birds on a weekday morning



The number of birds (from April 1997 to the present)

The lagoon is used to communicate with stakeholders

The lagoon is used as the venue allowing communication with a wide range of stakeholders.

We are striving to improve the awareness of environment conservation among students of the nearby elementary school who visit the lagoon; emphasizing the importance of the discharged water management by introducing the animals and plants living there and the water quality check using backtest. Furthermore, we are also striving to improve awareness of the community residents and students of nearby colleges on the environment management of business organizations by explaining higher level issues, including the relationship between the discharged water management of the factory and ecosystem conservation.

The observation class for elementary school students

The creatures of the lagoon

Various creatures live in the lagoon. Following the investigation (in 2006), it was confirmed that there are 186 kinds of plants, a kind of reptilian, 139 kinds of insects, a further 8 kinds of aquatic insects and 7 kinds of other aquatic creatures as well as the avian species.

The creatures found there are mainly common creatures that are distributed widely and those that are highly adaptable, maybe because the lagoon was originally an artificial pond on landfill in the waterfront area.

However, there are a few characteristic species of the biofacies of the South Kanto district, including those specified in the RDB (Red Data Book) of the Ministry of the Environment, the RDB of Kanagawa prefecture and those dependent on broad-leaved evergreen trees. The lagoon can be said to support the specific ecosystem of the area.

Spot-billed ducks (Parents and chicks)

a larva of lacertid

V. undulata

The lagoon of the Yokohama Complex, which is a precious habitat for rare species.

Solutions

Toshiba Group provides solutions related to technologies for analysis and assessment concerned with various environmental impacts throughout the lifecycles of products, such as comprehensive assessment of environmental impacts and management of chemicals contained in products and related to countermeasures for environmental impacts substances, including the disposal of PCBs and carbon dioxide absorbents.

The design support tool for environmentally aware products (Easy-LCAs)

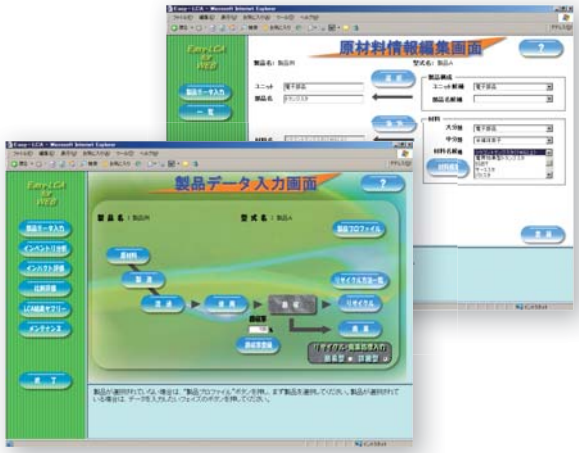
This tool is utilized in a wide range of fields, thanks to its full-fledged database and user-friendliness.

Toshiba Plant Systems & Services Corporation

Because Easy-LCA, which was developed as a design support tool for environmentally conscious products, has simple data input functions with which you can input the lifecycles in 6 stages as shown in the screenshot on the right, based on the Simple Assessment Method, and incorporates the inter-industry relations table databases with the following features, it is also widely utilized as a Toshiba Group's Factor T calculation tool.

<Features>

- It has many databases (about 4000) and supports the wide-ranging products and services necessary for LCA.
- Each data includes 30 kinds of environmental impact item and various assessment of environmental impacts in addition to the emission amount of carbon dioxide and climate change alongside.
- For major imported materials, the “hybrid” method, in which environmental impacts having occurred overseas are included in the database, is used and global as well as domestic assessments can be conducted.



Within Toshiba Group, Easy-LCA is used for publishing the LCA examples in the heavy electrical machinery and ICT solutions areas, which have been considered unsuitable for LCA.

The user-friendliness and full-fledged database, which are features of Easy-LCA, have also been highly praised in business organizations, universities and research institutes outside Toshiba Group. Many users have introduced Easy-LCA and there are many case examples of assessment using the same. We will continue to enhance the user-friendly functions and database.

Environmental analysis

We support the reduction of environmental impacts during the product manufacturing processes.

TERM Corporation

Nowadays because the importance of the environmental management is being emphasized, the roles played by environmental analysis are changing drastically. The Toshiba Group promotes the prohibition and reduction of 15 kinds of substances, including hazardous chemical substances specified in the RoHS Directive as the efforts of the Fourth Voluntary Plan and conducts highly-developed environmental analysis in environmental monitoring and impact assessments. Furthermore, TERM Corporation has been establishing ultra low volume environmental analysis technologies by commencing the commercialization of the analysis of dioxins, endocrine disturbing chemicals and PCBs from 2000.

Recently, to manage the hazardous chemical substances generated from products, green procurement guidelines and similar are being established in various areas and environmental analysis technologies applied to environmentally aware products in order to create a healthier living environment. For example, assessments for volatile organic compounds (VOCs), such as toluene generated from home electric appliances and car seats, are conducted.

High resolution mass analysis machine to analyze dioxins

If you refer to the discharged water analysis, exhaust gas (atmosphere) measurement and waste analysis as the “downstream areas” during the operation process, the importance of the environmental analysis of the products and manufacturing in the “upstream” areas will expand in future.

The purification operation of soil polluted by PCBs with geosteam technology

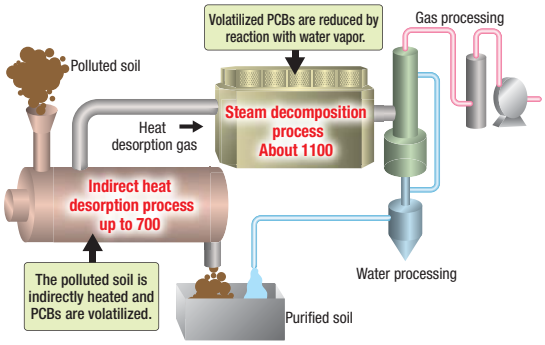
As a leading runner of purification operations, we contribute to creating an environment in which people can live without fear.

Geosteam Corporation

Toshiba succeeded in putting the purification technology of soil polluted by polychlorinated biphenyls (PCBs) called “geosteam technology”, the development of which commenced in 2001, into practical use after public experimental proof and evaluations of its safety and purification performance. From August 2007, the first in-plant style purification operation of soil polluted by PCBs in Japan got underway in Wakamatsu Ward, Kitakyushu City (the primary contractor is TERM Corporation and the purification performance is 300 kg/h). During the period from the beginning of the operation to the end of July 2008, 1,300 tons of soil polluted by PCBs nationwide was already purified and reclaimed. Additional facilities for the operation are currently being built and the scale of the operation will be enlarged to encompass purification performance of 12 thousand tons per year by 2008 following the verification test and technological evaluation conducted in November 2008.

In preparation for the enlargement, the primary contractor was moved into Geosteam Corporation, which was co-founded by Toshiba Corporation, TERM Corporation and Konoike Construction Co., Ltd. on 1st August, 2008. As a leading runner of the purification operation of soil polluted by PCBs, Geosteam Corporation will promote the operation according to the market needs and contribute to creating a social environment in which people can live without fear with its safe and sure purification technology.

The system flow of the purification of soil polluted by PCB



■ **Indirect heat desorption process**
The polluted soil is heated indirectly at up to 700℃ and purified by volatilizing PCBs in the same.

■ **Reduction process with water vapor**
The gas, including volatilized PCBs, is heated to about 1100℃ and detoxified by being reduced into carbon monoxide, hydrogen, carbon dioxide and hydrogen chloride by a reaction with water vapor. Because the water vapor is generated from the water included in the soil, the system structure is simple.

Purification facility for soil polluted by PCBs

Appearance of facility

Main equipment

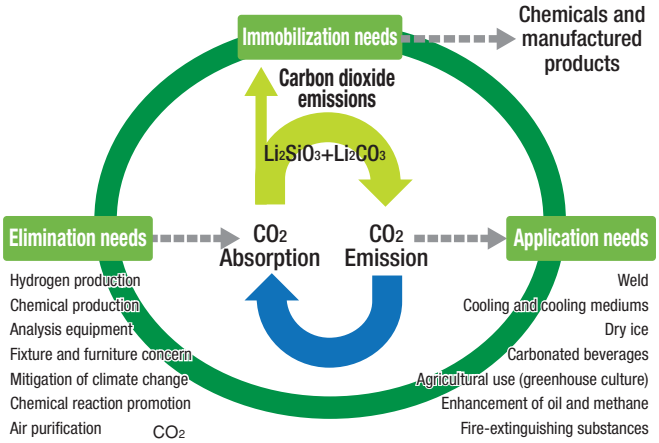
Carbon dioxide absorbent

We strongly support the reduction of greenhouse gases in various plants.

Toshiba Social Infrastructure Systems Company

Carbon dioxide absorbents can be classified into two types: the ambient temperature type and the high temperature type. The former is used within the temperature range 0℃ to 50℃ and the latter within a temperature range of about 500℃ to 850℃ to absorb and emit carbon dioxide repeatedly. The methods used to decouple and absorb carbon dioxide can be classified into chemical absorption, physical absorption and membrane separation, and so on. The notable feature of our products is the fact that decoupling and collection can be conducted directly at a high temperature range and that they can be used repeatedly. The ambient temperature type is granular material consisting primarily of lithium silicate, with an average grain diameter of about 500μm. The chemical reaction of Lithium oxide in the material and carbon dioxide generates lithium carbonate that is absorbed in porous ceramics. Though the collection efficiency of carbon dioxide of soda lime is 85% in the environment in the atmosphere, that featuring the ambient temperature type absorbent can maintain efficiency of nearly 100%, even in a dried environment, for a certain period of time. The high temperature type can be used repeatedly because the reaction to emit the absorbed carbon dioxide occurs when the temperature reaches 700℃ or higher. It also has excellent durability in a high-pressure environment. These characteristics make it possible to apply it to decoupling and collecting carbon dioxide during the emission gas purification process in chemical plants and manufacturing plants using hydrogen and thus contribute to the reduction of greenhouse gases.

The utilization cycle of carbon dioxide using carbon dioxide absorbents



Reaction formula

Li_4SiO_4 (Lithium silicate) + CO_2 (Carbon dioxide) ⟷ Li_2CO_3 (Lithium meta-silicate) + Li_2SiO_3 (Lithium carbonate)

Environmental Management

Toshiba's environmental management for energy and promoting eco products, eco process and

Basic policy

Toshiba promotes environmental management, clarifying our intention to strive for environment conservation in the management principles and emphasizing the importance of environmental issues in our management.
In addition, based on the management principles, we have set out the "Basic Policy on the Environment of Toshiba Group", which is shared within the entire Toshiba Group.

Basic Commitment of the Toshiba Group

We, the Toshiba Group companies, based on our total commitment to people and to the future, are determined to help create a higher quality of life for all people, and to do our part to help ensure that progress continues within the world community.

Commitment to People

We endeavor to serve the needs of all people, especially our customers, shareholders, and employees, by implementing forward-looking corporate strategies while carrying out responsible and responsive business activities.
As good corporate citizens, we actively contribute to further the goals of society.

Commitment to the Future

By continually developing innovative technologies centering on the fields of Electronics and Energy, we strive to create products and services that enhance human life, and which lead to a thriving, healthy society. We constantly seek new approaches that help realize the goals of the world community, including ways to improve the global environment.

TOSHIBA Group Slogan

Committed to People,
Committed to the Future. **TOSHIBA**

Toshiba Group's Basic Policy for the Environment

Recognizing the Earth is an irreplaceable asset and it is humankind's duty to hand it on to future generations in a sound state, Toshiba Group contributes to the development of a sustainable society by pursuing creation of new values and symbiosis with the Earth, in accordance with Toshiba Group's Environmental Vision.

◆ Promotion of environmental management

- Toshiba considers environmental stewardship to be one of management's primary responsibilities and promotes environmental activities in harmony with economic activities.
- Toshiba assesses the environmental aspects of its business activities, products and services, and specifies objectives and targets with respect to the reduction of environmental impacts and prevention of pollution.
- Toshiba strives to continuously improve environmental management through internal audits and reviews of activities.
- Toshiba complies with all laws and regulations, industry guidelines it has endorsed, and its own standards concerning the environment.
- Toshiba strives to enhance the awareness of all its employees with respect to the environment and requires that they make a practical contribution to the environment through their work.
- Toshiba operates globally, and accordingly, promotes environmental activities throughout Toshiba Group.

◆ Development and provision of environmentally conscious products and services, and reduction of environmental impacts of business activities

- Toshiba recognizes that natural resources are finite and implements vigorous environmental measures to promote their effective and practical use in terms of both products and business processes.
- Toshiba develops and provides environmentally conscious products and services which contribute to the reduction of environmental impacts throughout their life cycles.
- Toshiba strives to reduce the environmental impacts of all business processes, encompassing design, manufacturing, logistics, sale, and disposal, with a particular focus on the prevention of global warming, efficient utilization of resources and control of chemical substances.

◆ Responsibility as a member of the global community

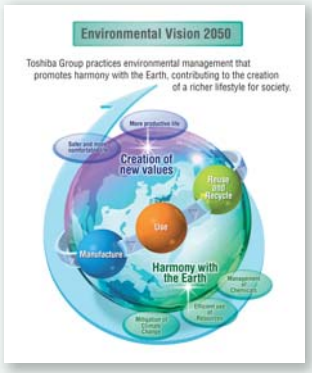
- Toshiba contributes to society through its environmental activities, which include the development and provision of excellent, environmentally conscious technologies and products and cooperation with society at large and with local communities.
- Toshiba is committed to maximizing disclosure and transparency in communication with stakeholders and society at large in order to facilitate mutual understanding.

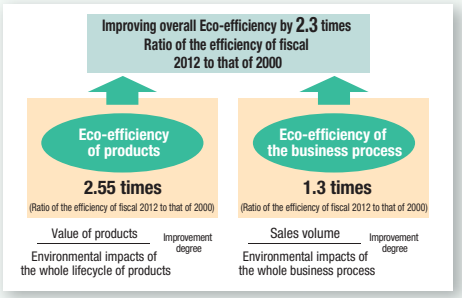
Toshiba Group established the "Environmental Vision" according to the "Basic Policy for the Environment", in which the numerical goals to be achieved are set.
To achieve the goals, we are promoting environmental activities systematically with the "Voluntary Environment Plan".
Furthermore, we operate audit systems for environmental management and conduct environmental education systematically in addition to the reinforcement of the environmental management system to promote environmental activities strategically.

Basic Policy for the Environment

- Promotion of the environmental management
- Development and provision of environmentally conscious products and services, and reduction of environmental impacts of business activities
- Responsibility as a member of the global community

Environmental vision

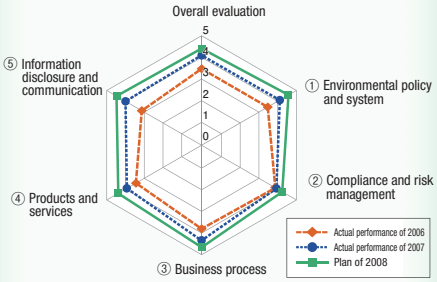




Feedback

Environmental management

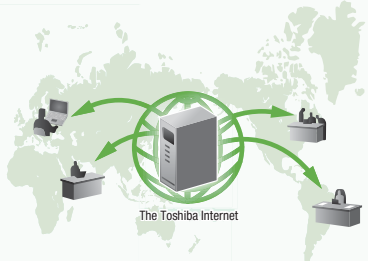
Environmental Management Audit System



Environmental education

Environmental management system (ISO 14001)

Environmental management information system



Environmental prize-giving system

Compliance of environmental laws

Environmental accounting

Feedback

Action program for achieving the goals in the vision

Voluntary Environment Plan

● **The details of the Fourth Voluntary Environment Plan and the actual fiscal 2007 performance**

Enhancement of Product Eco-efficiency		Indicator	Fiscal 2007 Goals	Fiscal 2007 Actual performance	Fiscal 2007 Evaluation	Goals of fiscal 2008	Goal of fiscal 2010	Goal of fiscal 2012
Provision of Environmentally Conscious Products (ECPs)	Provision of Environmentally Conscious Products (ECPs)	Ratio of ECPs to net sales	30%	31%	+1% (Achieved)	40%	60%	80%
			The ratio of the environmentally conscious products, which are mainly digital products, is steadily improving. We will continue to strive to improve the ratio for electronic devices and social system products.					
		☆ Newly created: Number of Excellent ECPs	—	2 products	—	5 products	15 products	25 products
	Abolition of specified chemical substances	15 substance groups contained in products ※1	60% ※2	63% ※2	+3% (Achieved)	80%	Complete abolition	Complete abolition
			We are continuing to abolish the inclusion of substances in the electronic device business and digital devices.					
	☆ Newly created: The reduction of carbon dioxide by Eco Products	☆ Newly created: CO_2 emissions reduction effect by the Eco Products Approach	—	4.7 milion ton	—	5.3 milion ton	6.3 milion ton	7.3 milion ton

※1
15 substance groups subject to restriction: bis (tributyl tin) oxide (TBTO), tributyl tins (TBTs), triphenyl tins (TPTs), polychlorinated biphenyls (PCBs), polychlorinated naphthalenes (PCNs with 3 or more chlorines), short-chain chlorinated paraffins, asbestos, azo colorants, ozone-depleting substances, radioactive substances, cadmium and its compounds, hexavalent chromium compounds, lead and its compounds, mercury and its compounds, polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs). (Detailed definitions and specific applications to be excluded are specified separately.)

※2
The ratio of the total sales amount of products not containing 15 specific chemical substances to that of all products.

Business Process Innovation		Indicator	Fiscal 2007 Goals	Fiscal 2007 Actual performance	Fiscal 2007 Evaluation	Goals of fiscal 2008	Goal of fiscal 2010	Goal of fiscal 2012
Mitigation of Climate Change	Reduction of energy-originated CO_2 emissions (compared with FY1990)	Basic unit for the total emission amount	30%	42%	+12% (Achieved)	43% Reduced	25 → 45%	47% Reduced
		Manufacturing sites in Japan	37%	42%	+5% (Achieved)	43% Reduced	25 → 45%	47% Reduced
			Considerable reductions are continuing via energy saving measures, such as the introduction of high energy efficiency clean rooms.					
	Reduction of greenhouse gas emissions (other than CO_2)	Total emissions	33%	35%	+2% (Achieved)	35% Reduced	35 → 36%	38% Reduced
			The increased emissions of greenhouse gases associated with the new production line was restrained by countermeasures, including the introduction of the abatement system.					
	Reduction of CO_2 emissions associated with product logistics in Japan	Ratio to the output of the reception amount	35%	36%	+1% (Achieved)	36% Reduced	25 → 40%	44% Reduced
			Energy saving was promoted by the promotion of measures for efficient logistics.					
Management of Chemicals	Reduction of total emissions of chemicals to air and water	Total emissions	23%	14%	-9% (Not achieved)	35% Reduced	50%	54% Reduced
			Though the emission amount was increased due to the increased transaction volume, following the unexpected increase in production, technological countermeasures and the installation of the collection and removal equipment are being promoted as planned.					
Efficient Use of Resources	Reduction in the total amount of waste generated	Basic unit for the total emission amount	24%	28%	+4% (Achieved)	23% Reduced	20%	24% Reduced
			Though the production volume was increased, the reduction target was achieved by efforts for improvement in each site.					
	Reduction of amount for final disposal	Rate to net production output (Sites achieving zero emissions of waste ※4)	46%	48%	+2% (Achieved)	60%	Achieved in all sites.	Achieved in all sites.
			The final disposal rate was a total of 4.5%, while the rate of sites having achieved zero emissions was increased to reach 48%.					
	Reuse and recycling of products	The amount recycled of end-of-use products ※5	154%	155%	+1% (Achieved)	158% Increased	160% Increased	180% Increased
			In addition to the formulation and operation of the domestic collection scheme, we will continue striving to respond to the WEEE Directive.					
	☆ Newly created: Reduction in the amount of service water used	Intake and rate to net production output	-	24%	-	8% Reduced	9% Reduced	10% Reduced

Except for the one with special notes, the numbers in the table were obtained by comparison to the data of fiscal 2000.
The data include domestic and overseas figures, from both production and non production sites.
For the base unit goals, as the index for the evaluation of the activities, the material amount base ratio relative to net output is used.
Real output = [Domestic nominal output] ÷ [The ratio of each year when the domestic corporate goods price index of the Bank of Japan (electric equipment) of 1990 is regarded as 1] + [Overseas nominal output]

※3 Comparing to the data of fiscal 2000
※4 Zero emission : Toshiba Group' s definition of zero emissions of waste is that the amount of waste for landfill after treatment is equivalent to 1% or less of the total amount of by-products and other items generated (total amount of waste discharged) as a result of business activities.
※5 Comparing to the data of fiscal 2001 (the Home Appliance Recycling Law was enforced in fiscal 2000)

Environmental Performance Targets and Results

Fourth Voluntary Environmental Plan Revised

After the First Voluntary Environment Plan established in 1993, Toshiba Group has been continuing the activities in the second and third plans and improving the level of activities by adding the issues to address and target sites.

In March 2005, the "Environmental Vision 2010", the goal of which is the doubling of overall eco-efficiency (compared to fiscal 2000) by fiscal 2010, was established. To achieve the goal, we established the Fourth Voluntary Environment Plan, featuring the setting of concrete goals, both in terms of Enhancement Product Eco efficiency and Business Process Inovation.

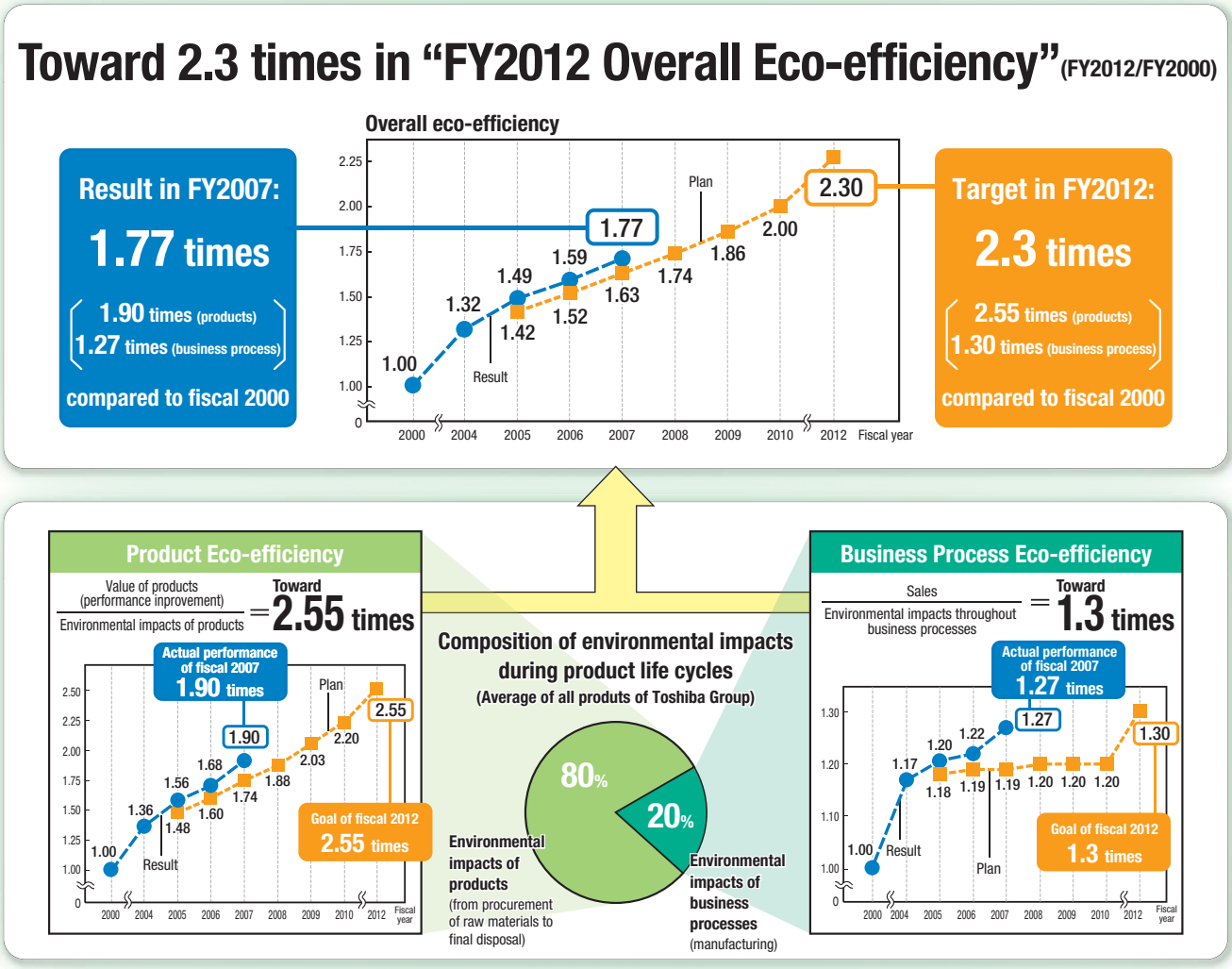
The extent to which eco-efficiency for fiscal 2007 has been achieved has seen the efficiency of products has become 1.90 times as much as that of fiscal 2000 (the goal was 1.74 times) and the efficiency of business process become 1.27 times that of fiscal 2000 (the goal was 1.19 times). The total of both has become 1.77 times as much as that of fiscal 2000 (the goal was 1.63 times), meaning the actual performance exceeded the target for every item.

For the progress of the Fourth Voluntary Environment Plan that supports the Environmental Vision 2010, all the goals except the chemical substance reduction were achieved and the actual improvement was better than foreseen on the whole.

Based on the positive progress, the active period of the Fourth Voluntary Plan was extended to fiscal 2012, in accordance with the commitment period of the Kyoto Protocol, and the goals were readjusted.

For the extension of the Fourth Voluntary Environment Plan, toward the goal of the "Environmental Vision 2050", established by Toshiba Group in 2007, in which the overall eco-efficiency must become 10 times that of fiscal 2000, the new goals based on it were set. In addition, new three goals were set for the number of newly created environmentally conscious products, the CO_2 emissions reduction benefits achieved by eco products and the reduction in the basic unit of the amount of water intake.

Furthermore, for items related to the mitigation of climate change, the importance of which is increasing, we reinforced efforts and upgraded the goals.



The details of the Fourth Voluntary Environment Plan and the actual fiscal 2007 performance

Enhancement of Product Eco-efficiency		Indicator	Fiscal 2007 Goals	Fiscal 2007 Actual performance	Fiscal 2007 Evaluation	Goals of fiscal 2008	Goal of fiscal 2010	Goal of fiscal 2012
Provision of Environmentally Conscious Products (ECPs)	Provision of Environmentally Conscious Products (ECPs)	Ratio of ECPs to net sales	30%	31%	+1% (Achieved)	40%	60%	80%
			The ratio of the environmentally conscious products, which are mainly digital products, is steadily improving. We will continue to strive to improve the ratio for electronic devices and social system products.					
		☆ Newly created: Number of Excellent ECPs	—	2 products	—	5 products	15 products	25 products
	Abolition of specified chemical substances	15 substance groups contained in products ✻1	60% ✻2	63% ✻2	+3% (Achieved)	80%	Complete abolition	Complete abolition
			We are continuing to abolish the inclusion of substances in the electronic device business and digital devices.					
	☆ Newly created: The reduction of carbon dioxide by Eco Products	☆ Newly created: CO_2 emissions reduction effect by the Eco Products Approach	—	4.7 milion ton	—	5.3 milion ton	6.3 milion ton	7.3 milion ton

✻1
15 substance groups subject to restriction: bis (tributyl tin) oxide (TBTO), tributyl tins (TBTs), triphenyl tins (TPTs), polychlorinated biphenyls (PCBs), polychlorinated naphthalenes (PCNs with 3 or more chlorines), short-chain chlorinated paraffins, asbestos, azo colorants, ozone-depleting substances, radioactive substances, cadmium and its compounds, hexavalent chromium compounds, lead and its compounds, mercury and its compounds, polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs). (Detailed definitions and specific applications to be excluded are specified separately.)

✻2
The ratio of the total sales amount of products not containing 15 specific chemical substances to that of all products.

Business Process Innovation		Indicator	Fiscal 2007 Goals	Fiscal 2007 Actual performance	Fiscal 2007 Evaluation	Goals of fiscal 2008	Goal of fiscal 2010	Goal of fiscal 2012
Mitigation of Climate Change	Reduction of energy-originated CO_2 emissions (compared with FY1990)	Basic unit for the total emission amount	30%	42%	+12% (Achieved)	43% Reduced	25 → 45%	47% Reduced
		Manufacturing sites in Japan	37%	42%	+5% (Achieved)	43% Reduced	25 → 45%	47% Reduced
			Considerable reductions are continuing via energy saving measures, such as the introduction of high energy efficiency clean rooms.					
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			Energy saving was promoted by the promotion of measures for efficient logistics.					
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			Though the emission amount was increased due to the increased transaction volume, following the unexpected increase in production, technological countermeasures and the installation of the collection and removal equipment are being promoted as planned.					
Efficient Use of Resources	Reduction in the total amount of waste generated	Basic unit for the total emission amount	24%	28%	+4% (Achieved)	23% Reduced	20%	24% Reduced
			Though the production volume was increased, the reduction target was achieved by efforts for improvement in each site.					
	Reduction of amount for final disposal	Rate to net production output (Sites achieving zero emissions of waste ✻4)	46%	48%	+2% (Achieved)	60%	Achieved in all sites.	Achieved in all sites.
			The final disposal rate was a total of 4.5%, while the rate of sites having achieved zero emissions was increased to reach 48%.					
	Reuse and recycling of products	The amount recycled of end-of-use products ✻5	154%	155%	+1% (Achieved)	158% Increased	160% Increased	180% Increased
			In addition to the formulation and operation of the domestic collection scheme, we will continue striving to respond to the WEEE Directive.					
	☆ Newly created: Reduction in the amount of service water used	Intake and rate to net production output	-	24%	-	8% Reduced	9% Reduced	10% Reduced

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✻3 Comparing to the data of fiscal 2000
✻4 Zero emission : Toshiba Group' s definition of zero emissions of waste is that the amount of waste for landfill after treatment is equivalent to 1% or less of the total amount of by-products and other items generated (total amount of waste discharged) as a result of business activities.
✻5 Comparing to the data of fiscal 2001 (the Home Appliance Recycling Law was enforced in fiscal 2000)

Environmental Management

Environmental management system

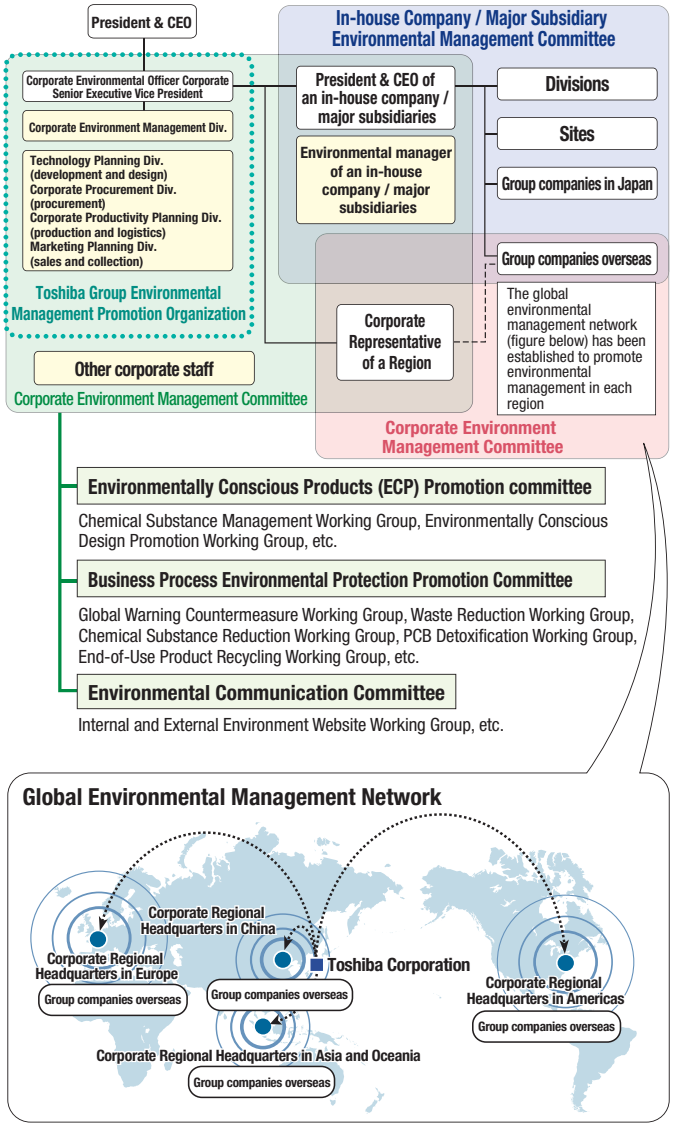
The Toshiba Group as a whole is globally promoting environmental management. The key elements of environmental management are: (1) Enhancement of the environmental management system, (2) Creation of Environmentally Conscious Products, (3) Business activities considering environmental impacts and risk reduction and (4) Environmental communication. We are actively conducting various activities emphasizing those elements.

Environmental management is promoted by the Corporate Environmental Officer, their directions to the president of in-house companies and key group companies. The planning of specific measures related to environmental management is conducted by the Organizational Chart of Toshiba Group's Environmental Management Structure; mainly comprising the Corporate Environment Management Division under the immediate control of the Corporate Environmental Officer.

The supreme decision-making body on environmental management is the "Corporate Environment Management Committee". The chairperson of the committee is the Corporate Environmental Officer. The committee meets biannually and features the participation of executives, environmental management officers of in-house companies and key group companies, and overseas regional directors. In the committee, proposed countermeasures for problems concerning environmental issues in management, technological development, production and sales are made, discussions for transforming the "Environmental Vision" into a "Voluntary Environment Plan" are conducted, the orientation of activities is determined and the status of progress is checked.

Under the committee, the "Environmentally Conscious Products (ECP) Promotion Committee" to promote environmentally aware products and technological development, the "Business Process Environmental Protection Committee" for making environmental efforts on the business process and the "Environmental Communication Committee" for communication within or outside the group are established and they conduct various activities, including planning and providing countermeasures for problems. Furthermore, under each committee, diverse expert working group, each with their own specialist areas, are conducting their activities. In addition, reagional environment management conferences are held in each region by the generalization department of the region in Europe, North and South America, China, Asia and Oceania. Each site has its own environmental management committees to determine the orientation of the activities.

● Organization Chart of Toshiba Group's Environmental management Structure



Environmental Management Audit System

In the Toshiba Group, the audit concerning the environment of sites was started in fiscal 1993 and the audit based on the unique standard of the Group was conducted with the addition of the "Environmental Technology Audit of Products". The audit system in the Toshiba Group consists of the following 4 elements: (1) System audit (e.g. for a system promoting environmental activities), (2) Site audit (e.g. for the compliance status of company standards of environment-related facilities), (3) Voluntary environmental plans audit (e.g. for the achievement status of the voluntary plans) and (4) Technology audit (e.g. for an environmental management system for products and environmental performance) and the audit is conducted over two days in each site. Also, from fiscal 2004, the level of practice of environmental management in-house companies and key group companies is evaluated. This includes 69 items in 5 fields including: (1) environmental policy and system, (2) compliance and risk management, (3) business processes, (4) products and services and (5) disclosure, communication; all of which are evaluated and the strengths and weaknesses of each in-house companies and key group companies are analyzed. The result is fed back to the management layer and those in charge of the environmental management in each company and used to continue improving our efforts.

From 2006, those multiple audits have been operated in an organically integrated manner. In addition to the environmental management audit for 14 in-house companies and key group companies, the environmental technology audit of products intended for 40 divisions in the Group and the site environment audit, based on the hands-on policy and intended for 110 sites, including non-production sites and unconsolidated affiliates, are conducted. Furthermore, self-inspection with a scope equivalent to those audits is conducted in sites with relatively low environmental impacts and those exempted from site environmental audits.

In the Toshiba Group, through those audits, risk management activities, including the promotion of environmental activities and completion of compliance is thoroughly reinforced. In addition, from fiscal 2006, the evaluation result of the status of the progress of environmental management promotion is involved in the performance evaluation of the Group in order to integrate the environment and management.

Toshiba Environmental Audit System

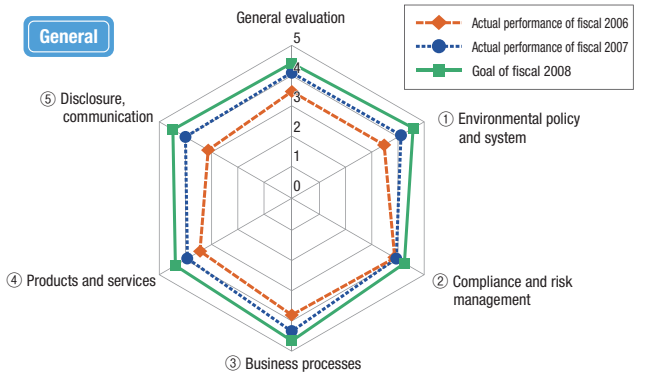
Environmental Management Audit
Management, compliance, business processes, products, disclosure and communication
Audit of 14 in-house companies and key group companies (including their subsidiaries)

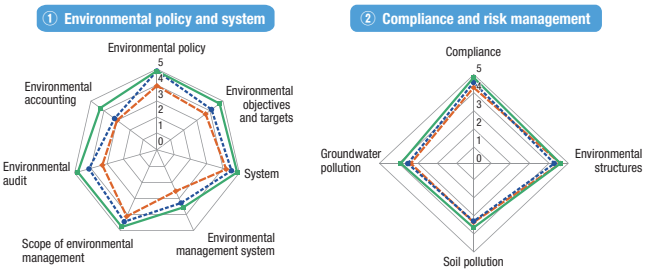
Environmental Audit of Sites
Environmental management level, workplace, compliance
Audit of 110 sites, Self-assessment of 115 sites

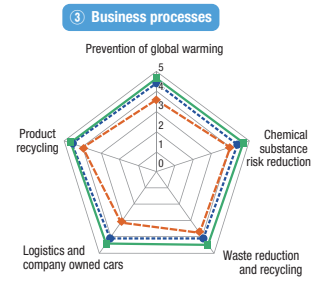
Environmental Technology Audit of Products
Management, product technology
Audit of 40 divisions (about 100 product lines)

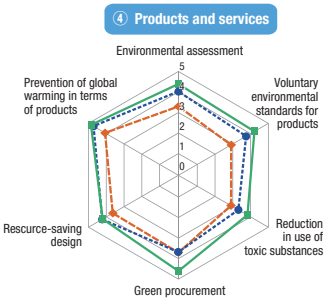
Improvement of performance level and strengthening of risk management

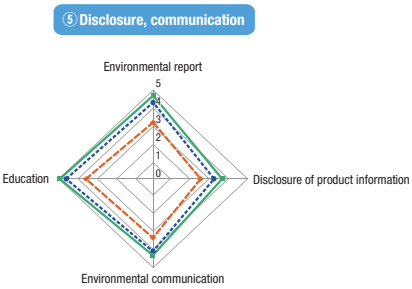
The result of the environment audit in fiscal 2007 (Average of In-house companies and key group companies)











Site environmental audit

The site environmental audit is based on a hands-on policy, namely: 1) 3-all policy (all members manage all areas, all equipments and facilities), 2) 3-actual policy (the actual situation is managed by seeing actual things in actual sites) and 3) 3-s policy (management by seeing, status is visible and what can be shown) and its purpose is to thoroughly comply with the basic environmental management policy of Toshiba Group and improve the level of the environmental activities.

The audit is conducted by the team organized for the same for a two day period. The audit items include: 1) an environmental management audit of the site, 2) a site audit, 3) a compliance audit and (4) examples of feature applications.

In particular, in the site audit, 19 facilities, including discharged water treatment facilities, boilers, plants using chemical substances and warehouse sites for the substances and recycling centers are audited and emergency response training is conducted. The confirmation of compliance, management values and measurement management and the detailed evaluation of aspects including organization, order, cleaning, cleanliness, employee education and emergency response are conducted. In the emergency response trainings, it is confirmed whether simulation training assuming an emergency situation in the sites has been properly conducted.

The items that are pointed out must be corrected within half year of the establishment of a correction plan document and the fact must be reported to the audit team. With the annual site audits, we will improve the environmental management of the sites spirally.

Site environmental audit

Environmental technology audit of products

The purpose of the environmental technology audit of products is to ensure proper management of the development of environmentally conscious products and services. The audit is conducted after self-evaluation using materials and documents that represent proof of the self-evaluation. As well as the annual results, continual improvements are also carefully audited.

The audit items are those concerning management and product technologies. In the management area, a total of 21 items concerning life cycle assessment (LCA) and eco-efficiency and product assessment, etc. are evaluated in detail. In the product technology area, a total of 3 items concerning the disclosure status of the product environmental information, etc. are evaluated.

For items where the actual performance cannot meet the standard, a correction plan document must be created and the results of the correction reported to the audit team within half a year. We continue conducting the environmental technology audit of products to promote environmentally aware production on a continual basis.

Environmental Management

Environmental education

We are conducting environmental education for all employees in order to improve the level of environmental activities. In the education program, (1) position based education, (2) environmental general education, (3) specialized education and (4) ISO14001 education, etc. are all included. The program is established according to the position, occupational ability and expertise of individuals.

For the environmental general education for all employees, e-learning is used for the participation of regional offices or mobile computers during business trips, in order to reduce travel time and improve the attendance rate.

Specialized education includes ECP education and in-house environmental auditor education. The purpose of the former is to make development and design engineers understand the basics of the ECP development, in which environmentally aware and recycling design are taught.

We continue the environmental education for all employees and continue enhancing the educational content and incorporating IT into such education. In addition, for family members of employees, we are promoting activities including environmental housekeeping books to improve their environmental awareness.

Environmental education system

Position based education	Environmental general education		Specialized education		ISO14001 education		
			ECP education	In-house environmental auditor education			
Managerial education Regular employee education New employee education	Environmental mind training course Environmental education for new employees	e-learning (on a company-wide basis)	Environmental aware design primer Environmental recycle design practical course	In-house auditor qualification education • Field system auditor • Technology auditor	Environmental general education (all employees in all sites)	In-house auditor training course	Special employee education

Environmental management system (ISO14001)

To promote environmental management, we strive with on-site efforts, meaning that all 16 Japanese sites of the Toshiba Corporation had obtained ISO14001 certification by 1997 and have maintained it to date. Moreover, for domestic and overseas Group companies, 161 of 176 sites had also obtained ISO14001. In companies including Toshiba Semiconductor Company, by promoting integrated certification, involving the headquarters, sales sites, plants and group companies, attempts are made to establish an environmental management system for the company as a whole.

	Certifications	Integrated certifications	Candidates	Ratio of certification
Sites of Toshiba Corporation	16	9	16	100%
Domestic and overseas production sites	60	14	100	98%
Domestic non-production sites	38	7		
Overseas production sites	42	—	60	78%
Overseas non-production sites	5	—		
Total	161	20	176	91%

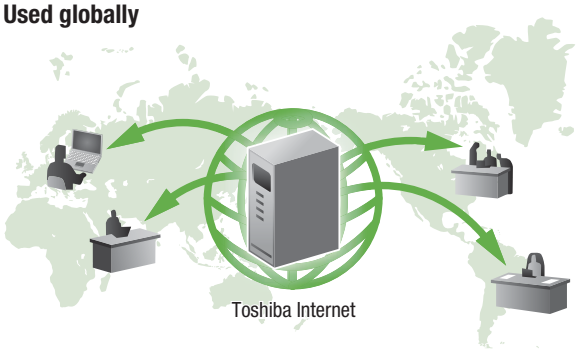
✻ For details, see p. 70.

Environmental management information system

We build and operate the “environmental management information system” as a system to collect and manage the environment-related data necessary to promote environmental management. In the environment management information system, as well as the performance data, such as that for the energy usage required for business activities and waste generation, the result of environmental accounting and site environmental audits can also be registered and centrally managed. In addition, it also covers consolidated subsidiaries (550 companies as of fiscal 2007) of the Toshiba Group, which are within the environmental management scope, and which remain accessible from around the world.

In fiscal 2007, the function to collect the data for the energy used in logistics has been added; which contributes significantly to the logistical management of carbon dioxide. We will enhance the data utilization functions, such as that to manage the actual performance compared to the plan and establish a system that can be used for environmental management in a timely fashion.

Used globally



Central management, data input and counting

Environmental management information system

- Performance data (from fiscal 2005)
  - Energy and GHG: 93 items
  - Energy for logistics: For each transportation means and purpose (from fiscal 2007)
  - Waste: 22 classes and a total of 17 items
  - Management of chemicals: 449 substances and 15 items for each
  - Owned cars: 38 items
- Environmental accounting: 48 items for cost Benefit A-D: 136 items (from fiscal 2006)
- Environmental audit (from fiscal 2006)
  - Audit plan and progress management: 10 items
  - Result input and retention of materials: 11 items, PDF data and similar are attached

Data entry screen (Japanese and English)

Toshiba Group Environmental Award

In Toshiba Group, in order to promote environmental management, the "Toshiba Group Environmental Award" to honor the excellent results of environmental activities was established in fiscal 2003.
In fiscal 2007, 1 Grand Prix and 4 runner-ups were selected from 26 applications and the awarding ceremony was held in the Toshiba Group's CSR conference (December).

Prized in fiscal 2007

Grand Prix	**The establishment and commercialization of a purification operation for soil polluted by PCBs with geosteam technology by the Geosteam Soil Purification Group, consisting of the TERM Corporation and the Toshiba Social Infrastructure Systems Company.** The first off-site type PCB polluted soil purification facility in Japan to use indirect heat desorption and water vapor resolution instead of a process using solvents or chemicals reduces the risk. This was appreciated, both in terms of the reduced environmental impacts and the promotion of the environmental business.
Runner-up	**The optimal energy saving liquid crystal TV, "REGZA 37C3500" by the first, second, third and fourth sections of TV design of the Toshiba Digital Media Network Company.** The commercialization of a liquid crystal TV with high image quality and functionality, thanks to the development of new technologies such as Meta Brain Pro, a sophisticated design and notable environmental performance including the best energy (148kWh/year, an energy saving achievement percentage of 185) and a resource (20.1kg) saving performance was appreciated.
Runner-up	**"The X-ray CT diagnostic equipment that can dramatically reduce impacts on people and environment, Aquilion 64-Slice System" by the 64SP development team of Toshiba Medical Systems Corporation.** It can reduce impacts, both on human bodies and the environment, by taking 64 pictures in an X-ray irradiation. The resource utilization features, including a design that supports the upgrading and reuse of the covering member of the electron tube, were appreciated.
Runner-up	**"Development and sales promotion of the high efficiency LED downlight, E-CORE series" by the Team E-CORE (team for developing E-CORE) of Toshiba Lighting & Technology Corp.** The commercialization of high efficiency LED downlights that satisfy both the needs for mitigation of climate change and cost efficiency by improving brightness and reducing costs in the area of LED illumination, which is attracting increasing attention as a new form of lighting, was appreciated.
Runner-up	**"The reduced environmental impacts with a fractionation unit of the self-created mercury for waste vacuum fluorescent tubes" by the mercury waste project team of Harison Toshiba Lighting Corporation.** The reduced environmental impacts, e.g. due to the improvement in recyclability and reduction in carbon dioxide generated from waste logistics through the development of a unique disposal device to separate mercury, which is a hazardous chemical substance, from waste fluorescent tubes was appreciated.

Prize winners

Reports by prize winners

The global environment and ECP marks

Toshiba Group's global environment mark was established in June 1999 as a symbol to represent the posture and activities for the global environment of Toshiba Group companies. Also, in March 2007, the "Excellent ECP" mark and "Environmentally conscious product" mark were established to promote the awareness of environmentally conscions products.

Toshiba Group global environment mark

TOSHIBA Group
Excellent ECP
http://ecp.toshiba.co.jp

TOSHIBA Group
ECP
http://ecp.toshiba.co.jp

Compliance of environmental laws

Toshiba Group establishes voluntary standards that are more stringent than regulations governing laws on waste for the atmosphere and water and each site strives for compliance. Despite the sharing of information concerning new laws and regulations and examples of accidents in other organizations within the Group to promote comprehensive activities, unfortunately, 4 environment-related problems emerged in fiscal 2007. We will deal with such problems swiftly and appropriately and strive for preventative measures and further compliance management based on the lessons learned.
In addition, the status of compliance of each site is shown in the Toshiba Group's environment website in detail.

Keihin Product Operations, Toshiba Corp.

Zinc was detected in the discharged water at the drain outlet. The amount exceeded the legally permissible level (July 2007).
Because an abnormal volume of zinc was detected in the regular voluntary discharged water measurement, the discharge was immediately stopped and the details were reported to the government. Subsequently, determination of the cause and recurrence prevention were conducted.

TERM Corporation

Zinc was detected in the water discharged from the outlet as sewage. The amount exceeded the legally permissible value under the city ordinance (July 2007).
During the regular voluntary inspection, zinc was detected in the discharged water following the cleaning of the washing machine demolition site. The amount exceeded the legally permissible criterion value (1.5mg/L). The criterion value is 1.0mg/L) for sewage and discharged water under the city ordinance. The discharge was stopped immediately and preventive measures were taken.

Toshiba Carrier Corp.

It accepted the administrative advice document from the Ministry of the Environment and the Ministry of the Economy, Trade and Industry to comply steadily with the Electric Appliance Recycling Law (July 2007).
An accident involving leakage of cooling medium collected from air conditioners during a collection operation occurred in an A group recycling plant (Kazo City, Saitama Prefecture).

Corporate Research & Development Center, Toshiba Corp.

The pH value of the discharged water temporarily exceeded the legally permissible level of Kawasaki City (September 2007).
When the water flowed into the newly created discharging path during switching of the same due to the in-plant construction, retained water and mud that were in contact with the new concrete was swept away and the pH value temporarily rose to 9.05 (the legally permissible range of Kawasaki City is between 5 and 9).

Concerning the notification deficiency related to the High Pressure Gas Safety Law in Yokkaichi Operations, Toshiba Corp.
We deeply regret and apologize for the anxiety and annoyance relating to the notification deficiency related to the High Pressure Gas Safety Law in Yokkaichi Operations and the further notification deficiency emerging in subsequent in-house research.
The background to the deficiency and preventative measures taken are shown on the following Web page:
http://Toshiba-yokkaichi.jp/topics/topics_080902_02.html
2 September, 2008

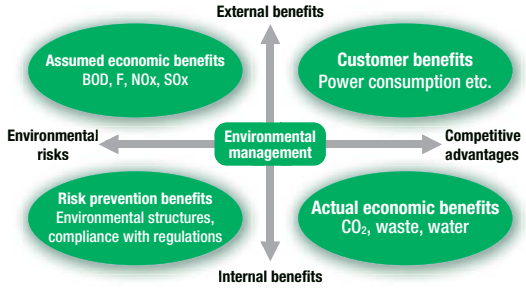
Environmental Accounting

As a tool for environmental management

To promote environmental management, Toshiba Group is striving for "environmental accounting" for calculation and analysis after accurately grasping the investment amount and costs involved in environment conservation and exploiting the investment effect and cost-effectiveness for managerial decision-making.

The overview of the environmental accounting of Toshiba Group is shown in the following figure. In Toshiba Group, for four kinds of effects, including the power consumption reduction effect for users, the economic benefits assumed to be associated with a reduction in air pollutants, the prevention effect against possible risks and actual economic benefits associated with a reduction in the amounts of waste disposal and energy consumption, the internal and external effects in preventing potential environmental risks and business chances are systematically considered in four quadrants. The four quadrants will be used as an index for environmental management on a continuous basis.

Environmental Accounting as an Environmental Management Tool



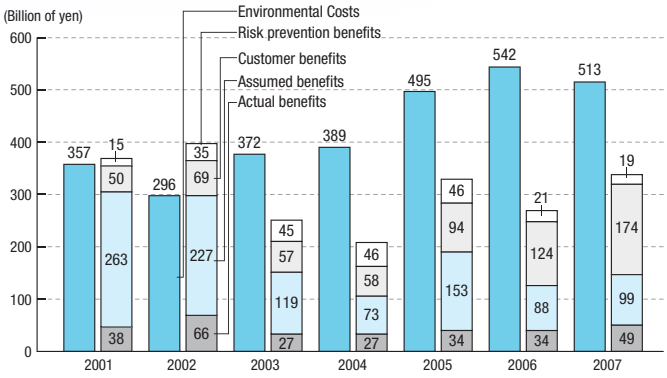
Transition of environment costs and effects

In the environmental accounting in fiscal 2007, 551 consolidated companies (including Toshiba Corporation) are involved. The classification and calculation criterion for environment costs conform to the "Environmental Accounting Guidelines (fiscal 2005 version)" of the Ministry of the Environment. In addition, to calculate the effects, the reduction effect of the environmental impacts is shown quantitatively and in terms of monetary amounts.

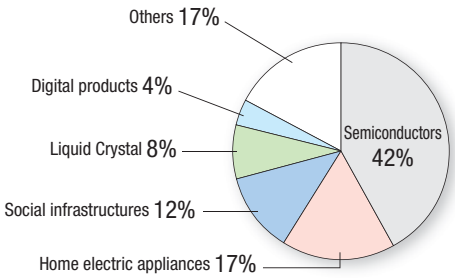
For environment costs, the total amount was reduced by 5.5% compared with that of fiscal 2006 to 51.3 billion yen. The costs for mitigation of climate change measures and research and development for environmentally conscious products became relatively larger elements. Conversely, the environment conservation effect increased by 22% compared with that of fiscal 2006 to a total of 34.2 billion yen because of the clientele effect increase, due to the reduction of the environmental impacts (reduction of power consumption, etc.) associated with the increased production of energy saving products.

During the same period, the proportion of environment-related investment amount relative to that of overall investment was 3.3% (that of fiscal 2006 was 3.4%), while the proportion of environment-related research and development costs relative to overall research and development costs was 2.8% (that of fiscal 2006 was 4.2%). Over the past 5 years, environment costs have increased relative to fiscal 2003, due to the expanded scope and the climbing development costs of environmentally conscious products. The environment conservation effect has been totally improved and the clientele effect improvement is particularly notable.

Trend of Environmental Costs and Benefits



Breakdown of Environmental Cost by Business Segment (FY2007)



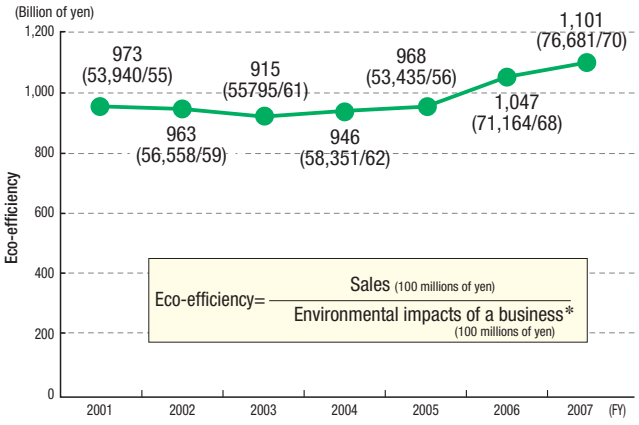
Eco-efficiency

The transition of eco-efficiency, which is established as an environmental management index by the Toshiba Group, is shown in the following figure. Eco-efficiency is the ratio of the sales amount and the amount of environmental impacts caused by business operations. The environmental impacts amount is calculated using the Life-cycle Impact Assessment Method (LIME).

In LIME, the co-joint analysis method, in which damages from emissions, such as carbon dioxide, nitrogen oxide, sulfur oxide and waste for four areas, including the primary production of plants, social assets, human health and biodiversity are estimated and questions to general consumers concerning the importance of such damage is used to convert the environmental impacts into economic values.

* The environmental impacts amount was calculated monetarily using LIME.
Major inventory · · · Carbon dioxide, chemical substances and waste released to the atmosphere and water.

Trend of eco-efficiency



Environmental Costs

Millions of yen

Classification		Content	Expenditure		Costs		Change in costs from fiscal 2006	
			Toshiba Group	Toshiba Corporation	Toshiba Group	Toshiba Corporation	Toshiba Group	Toshiba Corporation
Business area costs		Reduction of environmental impacts ①～③	18,115	11,915	26,559	18,282	1,593	2,775
Content	① Pollution prevention costs	Prevention of pollution of atmosphere, water, soil, etc.	12,185	9,251	17,191	13,889	2,140	2,769
Content	② Global environmental protection costs	Prevention of the greenhouse effect, protection of the ozone layer, etc.	4,652	2,385	3,916	2,166	△527	9
Content	③ Resource circulation costs	Efficient use of resources, reduction of volume of waste, etc.	1,278	279	5,452	2,227	△ 19	16
Upstream/downstream costs		Green procurement, recycling, etc.	184	8	1,571	139	△997	△81
Administration costs		Environmental education, maintenance of EMS, planting of greenery at factories, etc.	401	136	10,535	7,710	4,459	4,782
R&D costs		Development of environmentally conscious products	1,380	1,033	11,088	3,038	△5,632	△4,703
Social activity costs		Support of environmental activities, contributions, etc.	3	0	73	28	11	7
Environmental remediation costs		Recovery from soil pollution, etc.	49	39	1,432	1,423	△2,403	△2,279
Total			20,132	13,131	51,258	30,620	△2,970	502

Total expenditure during the period	618,9 billion yen
Total R&D expenditure during the period	393,3 billion yen

Environmental Benefits

Millions of yen

Classification	Content	Toshiba Corp.	Affiliated companies	Total	Basis for calculation
Actual benefits	Benefits that can be directly converted into monetary value, such as reduced charges for electricity, water, etc.	△1,613	6,515	4,902	Total of the monetary value of the reductions of electricity charges, costs of waste disposal, etc. compared with the previous year and the proceeds from sale of items with value
Assumed benefits	Benefits concerning reduction in environmental impacts expressed in monetary value	3,272	6,644	9,916	Monetary values were calculated by giving each substance, calculated in terms of cadmium, a weighting based on environmental standards and ACGIH-TLV (allowable concentration of each substance as determined by the American Conference of Governmental Industrial Hygienists) and multiplying the result by the amount of compensation in the case of cadmium pollution. Reduction in environmental impacts on atmosphere, water and soil is indicated quantitatively and the environmental impacts reduction volumes are compared with the previous year's results, and also reduction of environmental impacts is calculated in terms of monetary value to enable comparison of various environmental impacts on the same basis.
Customer benefits	Reduction of environmental impacts at the usage phase expressed in monetary value	3,793	13,661	17,454	Benefits of reduction of environmental impacts of products throughout their life cycles are calculated in terms of physical quantity units and monetary units. A life cycle comprises several phases: 1) procurement of raw materials, 2) manufacturing, 3) transport, 4) use, 5) collection, 6) recycling and 7) appropriate processing. Toshiba' s environmental accounting focuses on the benefits of reduction of environmental impacts at the use phase. Energy-saving benefits are calculated using the following formula: Benefits (yen) = Σ [(power consumption per year of the former model – power consumption per year of the new model) x number of units sold per year x benchmark unit price of electricity charge]
Risk prevention benefits	The extent to which risks are reduced after the investment compared with before the investment is calculated	1,167	726	1,893	Benefits of investment in environmental structures, such as dikes, for the purpose of preventing pollution of soil and groundwater are evaluated as benefits to prevent risks that might otherwise occur in the future. Risk prevention benefits for each capital investment item are calculated according to the following formula: Risk prevention benefits = Quantity of chemical substances stored x Standard amount (monetary value) required for purification and restoration x Impact coefficient x Occurrence coefficient where the standard amount required for purification and restoration and the occurrence coefficient are values unique to Toshiba. Risk of occurrence of leakage of chemical substances etc. is evaluated.
Total		6,619	27,546	34,165	

(1) Breakdown of actual benefits

Item		Amount of reduction in environmental impacts	Monetary value of benefits (Millions of yen)
Energy	Toshiba Corp.	△3,316,919GJ	△3,464
	Affiliated companies	5,888GJ	△1,608
	Total	△3,311,031GJ	△5,073
Waste	Toshiba Corp.	149t	1,683
	Affiliated companies	283t	8,749
	Total	432t	10,433
Water	Toshiba Corp.	8,016 thousand m^3	168
	Affiliated companies	△10,120 thousand m^3	△626
	Total	△2,104 thousand m^3	△458
Total			4,902

✻ Indicated in the above table are differences in volumes of environmental impacts between fiscal 2003 and fiscal 2004.
Minus figures indicate that increase in environmental impacts exceeded reduction benefits due to increased production etc.

(2) Breakdown of assumed benefits

Item		Amount of reduction in environmental impacts	Monetary value of benefits (Millions of yen)
Environmental impact reduction benefits at the manufacturing phase	Toshiba Corp.	8t	3,272
	Affiliated companies	88t	6,644
	Total	96t	9,916

✻ Indicated in the above table are differences in volumes of environmental impacts between fiscal 2006 and fiscal 2007.
✻ Except for Sigma Power Ariake and Sigma Power Tsuchiura

(3) Breakdown of customer benefits

Item		Amount of reduction in environmental impacts	Monetary value of benefits (Millions of yen)
Environmental impacts reduction benefits at the usage phase	Toshiba Corp.	64,486t-CO_2	3,793
	Affiliated companies	218,624t-CO_2	13,661
	Total	283,110t-CO_2	17,454

✻ Indicated in the above table are differences in volumes of environmental impacts between fiscal 2006 and fiscal 2007.

Third-Party Evaluation

BUREAU VERITAS 1828

Move forward with confidence

The Environmental Performance Data Review Report

August/30/2008

Toshiba Corporation

Bureau Veritas Japan Co., Ltd
System Certification Services Head Quarter

Bureau Veritas Japan Co.,Ltd (BV) has reviewed environmental performance data 2007 (including environmental accounting and environmental efficiency data) for the Toshiba Group Environmental Report 2008 issued under responsibility of Toshiba Corporation (Toshiba). BV's liability is limited to reviewing the performance data from an objective perspective, and its purpose is not to verify data.

Scope of Work

BV visited the following facilities and has reviewed FY2007 environmental performance data about Environmental performance data for the Toshiba Group Environmental Report 2008.

Principal Office	Administration
Yokkaichi Plant	Manufacturing of semiconductor memories

Review Outline

BV conducted the review based on an agreement with Toshiba at;

Principal Office

(1) We reviewed the reliability of the environmental performance data management system.
(2) We reviewed the adequacy of data in the Environmental Performance Data Book.

Yokkaichi Plant

(1) We reviewed Environmental performance data from the site for the reporting period April, 2007 to March, 2008.
(2) We reviewed the reliability of the environmental performance data management system.

Review Findings

The findings of our review are that;

1. Environmental performance data, which are reported Toshiba Group Environmental Report 2008, are identical to that aggregated at the Principal Office.
2. No material misstatement was found in the reporting data, after the Yokkaichi Plant visit.
3. Verification including more site visits is required to improve the reliability of Environmental performance data (such as plants and factories - excluding the Principal Office).

Evaluation by External Parties

Awards	Activitiy/Technology/Product	Winner
Awards for Group-wide Environmental Management		
Eco-efficiency award	Director-General of Industrial Science and Technology Policy and Environment Bureau Award, Eco-efficiency Award	Toshiba Group
LCA forum	Chairman's Prize, LCA Japan Forum	Toshiba Corp.
Awards for Environmental Technologies and Activities		
Bureau of Economy, Trade and Industry Director-General's Prize, Successful Case of Energy Conservation in Factory & Building for Fiscal 2007	Energy saving by upgrading of refrigerators	Iwate Toshiba Electronics Co., Ltd.
Director-General of the Agency for Natural Resources and Energy Award, Successful Case of Energy Conservation in Factory & Building for Fiscal 2007	Energy saving by reduction of clean room air circulation flow	Oita Operations, Toshiba Corp.
Director-General of the Agency for Natural Resources and Energy Award, 18th Energy Conservation Grand Prize	RAS-402BDR/RAS-402BADR Daiseikai room air conditioners	Toshiba Carrier Corp.
Chairman Prize of Energy Conservation Center, Japan, 18th Energy Conservation Grand Prize	E-CORE high-efficiency LED downlight	Toshiba Lighting & Technology Corp.
	NeoBall Z Real compact fluorescent lamp	Toshiba Lighting & Technology Corp.
	Hot Power Eco Ultra BIG heat pump hot water supply system for commercial use	Tokyo Electric Power Co. Toshiba Carrier Corp.
Special Commendation, 4th PRTR Award 2007	Management of chemicals and risk communication	Yokkaichi Operations, Toshiba Corp.
The Japan Machinery Federation Chairman's Prize, Excellent Energy-saving Equipment Commendation for Fiscal 2007	Sensorless permanent magnet motor drive for hybrid trucks	Hino Motors, Ltd. Automotive Systems Div., Toshiba Corp.
Commendation by the Minister of the Environment for Climate Change Mitigation Activities for Fiscal 2007 (Technology Development and Commercialization Category)	E-CORE high-efficiency LED downlight	Toshiba Lighting & Technology Corp.
Ministry of Land, Infrastructure and Transport Award at Electrical Construction Equipment and Materials Fair 2007	E-CORE high-efficiency LED downlight	Toshiba Lighting & Technology Corp.
Minister of the Economy, Technology and Industry Prize, Eco Service Category, 4th Eco Products Awards	Upgrading of elevators	Toshiba Elevator and Building Systems Corp.
Outstanding Prize, Eco Products Category, 4th Eco Products Awards	E-CORE high-efficiency LED downlight	Toshiba Lighting & Technology Corp.
	Next-generation X-ray CT systems, X-ray tubes, and CCD cameras	Toshiba Medical Systems Corp. Toshiba Electron Tubes and Devices Co., Ltd.
Encouragement Prize, Recycling Technology and Systems Awards	Development of 24/36 kV solid insulated switchgear	Power Systems Company, Toshiba Corp. Power and Industrial Systems Research and Development Center, Toshiba Corp. Industrial Systems Company, Toshiba Corp.
Reduce, Reuse, Recycle Promotion Council Chairman's Award	Promotion of 3Rs for the latest clean room	Oita Operations, Toshiba Corp.
	Voluntary recovery of end-of-use X-ray tubes and power grid tubes	Toshiba Electron Tubes and Devices Co., Ltd.
Minister of the Environment Prize and Outstanding Prize, 34th Environmental Award	Development of decolorable ink	Corporate R&D Center, Toshiba Corp. Industrial Systems Company, Toshiba Corp.
Outstanding Environmental Performer (Hall of Fame Award)	Environmental protection activities	Toshiba Information Equipment (Philippines), Inc.
Excellence in Ecology and Economy (E3)	Contribution to environmental protection and the economy	Toshiba Information Equipment (Philippines), Inc.
LLDA Blue Rating Award	Wastewater management	Toshiba Information Equipment (Philippines), Inc.
Prime Minister's Hibiscus Award 2006/2007	Environmental protection activities	Toshiba Electronics Malaysia Sdn. Bhd.
Energy Conservation Award in Energy Participation Program	Energy Conservation activities	Toshiba Hokuto Electronic Devices (Thailand) Co., Ltd.
Best Overall Sustainable Waste Management Solutions 2008	Waste management	Toshiba Information Systems (UK) Ltd.
US Environmental Protection Agency's Plug-in to eCycling commendation	Recycling activities	Toshiba America, Inc. Toshiba America Information Systems, Inc. Toshiba America Consumer Products, L.L.C.
2007 Urban Impact Recycling Certification	Recycling activities	Toshiba of Canada, Ltd.
A member in the National Environmental Performance Track Energy participation program	Environmental protection activities	Toshiba International Corp.

Main ratings by rating agencies	
Nikkei Inc: Environmentally friendly management ranking	Ranked 2nd (of 520 companies in the manufacturing sector)
Tohmatsu Evaluation and Certification Organization Co. Ltd.: Environmental rating	AA
Innovest Strategic Value Advisors (US): Social and environmental rating	AAA
ECO management forum, Nikkei BP: Environmental brand rating	Ranked 15th (of 560 companies, including manufacturing and non-manufacturing)

2007 performance

Detailed Data on Substances Subject to the PRTR Report

Substances Covered by PRTR (Amount Handled, Amount Released, etc.)

FY2007 PRTR Data (in descending order according to the amount handled (0.1 t or more))

Unit: t/year

Substance number specified by the law	Substance name	CAS number	Amount handled	Amount released					Amount transferred			Amount consumed	Amount removed and treated	Amount recycled
				Release to atmosphere	Release to public water systems	Release to soil	On-site landfill		Transfer as waste	Transfer to sewage				
283	Hydrogen fluoride and its water-soluble salts	Group	4020.03	3.94	62.07	0.00	0.00	66.01	33.14	26.54	59.67	383.42	3510.92	0.01
63	Xylene	1330-20-7	979.39	128.05	0.00	0.00	0.00	128.05	45.92	0.01	45.93	735.02	7.86	62.53
16	2-Aminoethanol	141-43-5	831.36	2.06	1.27	0.00	0.00	3.33	366.18	0.00	366.18	2.31	167.86	291.68
311	Manganese and its compounds	Metal compounds	793.06	0.00	0.15	0.00	0.00	0.15	0.79	0.00	0.79	791.69	0.00	0.43
43	Ethylene glycol	107-21-1	255.93	0.02	0.02	0.00	0.00	0.03	13.31	0.00	13.31	242.00	0.58	0.01
25	Antimony and its compounds	Metal compounds	225.60	0.00	0.00	0.00	0.00	0.00	38.79	0.00	38.79	183.69	0.00	3.12
231	Nickel	7440-02-0	210.43	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	210.04	0.00	0.28
346	Molybdenum and its compounds	Metal compounds	169.75	0.00	0.10	0.00	0.00	0.10	0.77	0.02	0.80	144.46	1.26	23.14
304	Boron and its compounds	Metal compounds	148.77	0.37	0.14	0.00	0.00	0.52	24.92	0.03	24.95	117.62	1.13	4.55
227	Toluene	108-88-3	136.27	83.73	0.00	0.00	0.00	83.73	29.98	0.00	29.98	12.64	9.76	0.15
243	Barium and its water-soluble compounds	Metal compounds	121.74	0.00	0.00	0.00	0.00	0.00	14.81	0.00	14.81	102.27	0.00	4.66
338	Methyl-1,3-phenylene diisocyanate	26471-62-5	107.36	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.07	107.30	0.00	0.00
30	Polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid)	25068-38-6	100.65	0.40	0.00	0.00	0.00	0.40	13.95	0.00	13.95	86.16	0.12	0.03
132	1,1'-Dichloro-1-fluoroethane	1717-00-6	94.43	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	94.42	0.00	0.00
217	Trichlorofluoromethane	75-69-4	67.40	0.00	0.00	0.00	0.00	0.00	67.40	0.00	67.40	0.00	0.00	0.00
230	Lead and its compounds	Metal compounds	64.39	0.01	0.00	0.00	0.00	0.01	3.71	0.00	3.71	56.03	0.00	4.64
85	Chlorodifluoromethane	75-45-6	60.20	0.63	0.00	0.00	0.00	0.63	59.02	0.00	59.02	0.55	0.01	0.00
177	Styrene	100-42-5	57.91	5.06	0.00	0.00	0.00	5.06	0.13	0.00	0.13	33.32	19.40	0.00
260	Pyrocatechol	120-80-9	49.13	0.00	0.00	0.00	0.00	0.00	42.88	0.00	42.88	0.00	6.25	0.00
40	Ethylbenzen	100-41-4	46.10	30.52	0.00	0.00	0.00	30.52	9.22	0.00	9.22	3.63	2.73	0.00
1	Zinc compounds (water-soluble)	Metal compounds	45.09	0.00	0.12	0.00	0.00	0.12	4.62	0.08	4.70	35.51	3.02	1.74
29	4,4'-Isopropylidenediphenol; Bisphenol A	80-05-7	41.11	0.04	0.00	0.00	0.00	0.04	7.82	0.00	7.82	33.25	0.00	0.00
202	Tetrahydromethylphthalic anhydride	11070-44-3	37.37	1.68	0.00	0.00	0.00	1.68	4.17	0.00	4.17	31.51	0.00	0.00
68	Chromium and chromium( ) compounds	Metal compounds	22.95	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03	22.81	0.02	0.08
305	Phosgene	75-44-5	21.32	1.88	0.00	0.00	0.00	1.88	0.00	0.00	0.00	0.00	19.44	0.00
44	Ethylene glycol monoethyl ether	110-80-5	21.27	2.22	0.00	0.00	0.00	2.22	0.02	0.00	0.02	19.03	0.00	0.00
320	Methyl methacrylate	80-62-6	15.32	4.36	0.00	0.00	0.00	4.36	5.26	0.00	5.26	5.69	0.00	0.00
100	Cobalt and its compounds	Metal compounds	14.48	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.06	11.53	0.00	2.89
64	Silver and its water-soluble compounds	Metal compounds	14.38	0.03	0.00	0.00	0.00	0.03	1.36	0.01	1.37	12.18	0.00	0.79
121	Ethylene glycol	75-71-8	14.00	0.00	0.00	0.00	0.00	0.00	14.00	0.00	14.00	0.00	0.00	0.00
207	Copper salts (water-soluble, except complex salts)	Metal compounds	10.83	0.00	0.00	0.00	0.00	0.00	4.91	0.00	4.91	5.91	0.00	0.00
312	Phthalic anhydride	85-44-9	10.47	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.30	10.16	0.01	0.00
252	Arsenic and its inorganic compounds	Metal compounds	8.04	0.00	0.00	0.00	0.00	0.00	1.98	0.00	1.98	6.07	0.00	0.00
224	1,3,5-trimethylbenzene	108-67-8	6.90	2.05	0.00	0.00	0.00	2.05	4.19	0.00	4.19	0.04	0.61	0.00
232	Nickel compounds	Metal compounds	6.77	0.00	0.08	0.00	0.00	0.08	0.33	0.00	0.33	5.06	0.46	0.83
24	n-Alkylbenzenesulfonic acid and its salts (alkyl C=10-14)	Group	5.68	0.00	0.00	0.00	0.00	0.00	5.14	0.00	5.14	0.54	0.00	0.00
307	Poly(oxyethylene) alkyl ether (alkyl C=12-15)	Group	4.55	0.00	0.00	0.00	0.00	0.00	4.18	0.00	4.18	0.33	0.03	0.00
340	4,4'-methylenedianiline	101-77-9	4.48	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.09	4.39	0.00	0.00
218	1,3,5-tris(2,3-epoxypropyl) -1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	4.28	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.82	3.36	0.10	0.00
253	Hydrazine	302-01-2	3.76	0.12	0.00	0.00	0.00	0.12	0.14	0.00	0.14	0.20	3.30	0.00
310	Formaldehyde	50-00-0	3.13	0.40	0.00	0.00	0.00	0.40	0.03	0.00	0.03	1.58	1.13	0.00
266	Phenol	108-95-2	2.86	0.47	0.00	0.00	0.00	0.47	1.94	0.00	1.94	0.43	0.00	0.02
254	Hydroquinone	123-31-9	2.62	0.00	0.00	0.00	0.00	0.00	2.62	0.00	2.62	0.00	0.00	0.00
272	Bis phthalate (2-ethylhexyl)	117-81-7	1.65	0.03	0.00	0.00	0.00	0.03	1.44	0.00	1.44	0.19	0.00	0.00
175	Mercury and its compounds	Metal compounds	1.36	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.16	1.19	0.00	0.01
198	1,3,5,7-tetraazatricyclo [3.3.1.13.7]decane	100-97-0	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	0.00	0.00
258	Piperazine	110-85-0	1.08	0.00	0.05	0.00	0.00	0.05	0.03	0.00	0.03	0.00	1.00	0.00
47	Ehylenediaminetetraacetic acid	60-00-4	0.77	0.00	0.76	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00
309	Poly (oxyethylene) nonylphenyl ether	9016-45-9	0.65	0.11	0.18	0.00	0.00	0.29	0.12	0.08	0.20	0.05	0.11	0.00
308	Poly (oxyethylene) octylphenyl ether	9036-19-5	0.61	0.00	0.01	0.00	0.00	0.01	0.25	0.00	0.25	0.00	0.00	0.34
95	Chloroform	67-66-3	0.48	0.40	0.00	0.00	0.00	0.40	0.08	0.00	0.08	0.00	0.00	0.00
299	Benzene	71-43-2	0.48	0.17	0.00	0.00	0.00	0.17	0.01	0.00	0.01	0.31	0.00	0.00
108	Inorganic cyanide compounds (except complex salts and cyanates)	Group	0.44	0.03	0.00	0.00	0.00	0.03	0.32	0.00	0.32	0.00	0.04	0.05
145	Dichloromethane	75-09-2	0.38	0.02	0.00	0.00	0.00	0.02	0.37	0.00	0.37	0.00	0.00	0.00
67	Cresol	1319-77-3	0.27	0.10	0.00	0.00	0.00	0.10	0.17	0.00	0.17	0.00	0.00	0.00
101	2-Ethoxyethyl acetate	111-15-9	0.22	0.18	0.00	0.00	0.00	0.18	0.03	0.00	0.03	0.00	0.00	0.00
270	Di-n-butyl phthalate	84-74-2	0.21	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.08	0.08	0.02
172	N,N-dimethylformamide	68-12-2	0.11	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.08	0.00	0.00

Toshiba Group's PRTR Data for Individual Business Sites (Results for Fiscal 2007)

Data on all business sites of Toshiba Corp. and data on major business sites of affiliated companies are shown. The PRTR Law mandates reporting of any substance whose amount handled is 1 more per year (highlighted in blue in the table) and of any specified Class I Designated Chemical Substance whose amount handled is 0.5 t or more per year (highlighted in pink in the tab Toshiba Group's survey requires business sites to report any substance whose amount handled is 0.1 t or more per year. Amounts handled, consumed and recycled are also shown. As well as the nam of individual business sites and addresses, main products of the sites and their primary measures for reduction of release of chemical substances are describe

Fukaya Operations, Toshiba Corp.

1-9-2, Hatara-cho, Fukaya, Saitama Pref. 366-8510

Main products: LCD TV, Digital media network equipment, aircraft display

Measures for reduction of release of chemical substances: Change to lead-free soldering, reduction of solvent

Unit: t/year

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
64	Silver and its water-soluble compounds	Metal compounds	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.14

Fuchu Complex, Toshiba Corp.

1, Toshiba-cho, Fuchu, Tokyo 183-8511

Industrial systems, traffic systems

Reduction of solvents

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
16	2-Aminoethanol	141-43-5	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21	0.00	0.00
24	n-Alkylbenzenesulfonic acid and its salts (alkyl C=1014)	Group	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00
40	Ethylbenzene	100-41-4	1.02	1.02	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00
63	Xylene	1330-20-7	11.92	8.18	0.00	0.00	0.00	8.18	3.74	0.00	3.74	0.00	0.00	0.00
177	Styrene	100-42-5	3.23	0.05	0.00	0.00	0.00	0.05	0.00	0.00	0.00	3.18	0.00	0.00
202	Tetrahydromethylphthalic anhydride	11070-44-3	7.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.57	0.00	0.00
207	Copper salts (water-soluble, except complex salts)	Metal compounds	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.88	0.00	0.00
218	1,3,5-tris(2,3-epoxypropyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00
227	Toluene	108-88-3	9.86	7.62	0.00	0.00	0.00	7.62	2.24	0.00	2.24	0.00	0.00	0.00
230	Lead and its compounds	Metal compounds	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.98	0.00	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00
304	Boron and its compounds	Metal compounds	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00
307	Poly (oxyethylene) alkyl ether (alkyl C=12-15)	Group	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
310	Formaldehyde	50-00-0	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.00	0.00

Hino Operations, Toshiba Corp.

3-1-1, Asahigaoka, Hino, Tokyo 191-8555

Cellular telephones, PHS terminals

Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
64	Silver and its water-soluble compounds	Metal compounds	0.12	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.09	0.00	0.00

Ome Operations, Toshiba Corp.

2-9, Suehiro-cho, Ome, Tokyo 198-8710

2-9, Suehiro-cho, Ome, Tokyo 198-8710

Appropriate management

✻ The amount of each PRTR substance handled by the operations was less than 0.1t.

Komukai Operations, Toshiba Corp.

1, Komukai-Toshiba-cho, Saiwai-ku, Kawasaki, Kanagawa Pref. 212-8581 Wave application systems

Patial change of the product mix

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
63	Xylene	1330-20-7	0.11	0.08	0.00	0.00	0.00	0.08	0.02	0.00	0.02	0.00	0.00	0.00
230	Lead and its compounds	Metal compounds	0.20	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.07	0.00	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	0.23	0.00	0.11	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.13	0.00

Hamakawasaki Operations, Toshiba Corp.

2-1 Ukishima-cho, Kawasaki-ku, Kawasaki, Kanagawa Pref. 210-0862 Transformers, switchgears, arresters

Change to closed system of VOC

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
25	Antimony and its compounds	Metal compounds	11.24	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.28	8.43	0.00	2.54
30	Polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3epoxypropane (liquid)	25068-38-6	31.36	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.29	31.07	0.00	0.00
40	Ethylbenzene	100-41-4	3.90	3.71	0.00	0.00	0.00	3.71	0.19	0.00	0.19	0.00	0.00	0.00
43	Ethylene Glycol	107-21-1	0.11	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.02	0.00	0.08	0.00
63	Xylene	1330-20-7	8.32	6.50	0.00	0.00	0.00	6.50	0.95	0.00	0.95	0.64	0.23	0.00
64	Silver and its water-soluble compounds	Metal compounds	0.55	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.42	0.00	0.12
68	Chromium and chromium (III) compounds	Metal compounds	0.49	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.37	0.02	0.08
100	Cobalt and its compounds	Metal compounds	2.46	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.06	1.73	0.00	0.67
108	Inorganic cyanide compounds (except complex salts an cyanates)	Group	0.36	0.03	0.00	0.00	0.00	0.03	0.31	0.00	0.31	0.00	0.02	0.00
177	Styrene	100-42-5	0.13	0.11	0.00	0.00	0.00	0.11	0.01	0.00	0.01	0.00	0.00	0.00
202	Tetrahydromethylphthalic anhydride	11070-44-3	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00
227	Toluene	108-88-3	10.11	9.16	0.00	0.00	0.00	9.16	0.95	0.00	0.95	0.00	0.00	0.00
230	Lead and its compounds	Metal compounds	0.31	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.21	0.00	0.06
231	Nickel	7440-02-0	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.04
232	Nickel compounds	Metal compounds	2.99	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.07	2.09	0.00	0.83
283	Hydrogen fluoride and its water-soluble salts	Group	0.17	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.00	0.01
304	Boron and its compounds	Metal compounds	0.30	0.01	0.06	0.00	0.00	0.07	0.20	0.00	0.20	0.01	0.00	0.01
309	Poly (oxyethylene) nonylphenyl ether	9016-45-9	0.26	0.00	0.07	0.00	0.00	0.07	0.12	0.00	0.12	0.00	0.07	0.00
311	Manganese and its compounds	Metal compounds	2.09	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	1.61	0.00	0.43
312	Phthalic anhydride	85-44-9	9.15	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.04	9.11	0.01	0.00
346	Molybdenum and its compounds	Metal compounds	0.22	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.17	0.00	0.00

✻ Hamakawasaki Operations include Hamakawasaki Operations, and Irifune and Ukishima Branch Operations. Of these three, only Hamakawasaki Operations and Irifune Branch Operations are subject to the requirement to report on PRTR data, while Ukishima Branch Operations is exempt.

Corporate Research & Development Center, Toshiba Corp.

1, Komukai-Toshiba-cho, Saiwai-ku, Kawasaki, Kanagawa Pref. 212-8582 R&D

Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
283	Silver and its water-soluble compounds	Group	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00

Microelectronics Center, Toshiba Corp.

1, Komukai-Toshiba-cho, Saiwai-ku, Kawasaki, Kanagawa Pref. 212-8583 Development of discrete semiconductor devices, and LSIs

Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
283	Silver and its water-soluble compounds	Group	0.48	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.47	0.00

Detailed Data on Substances Subject to the PRTR Report

Keihin Product Operations, Toshiba Corp.

2-4, Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa Pref. 230-0045 Power equipment, large motors

Reduction of solvents by process improvement

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
30	Polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3epoxypropane (liquid)	25068-38-6	1.22	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.11	1.00	0.12	0.00
40	Ethylbenzene	100-41-4	0.83	0.57	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.26	0.00
63	Xylene	1330-20-7	1.65	1.13	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.52	0.00
67	Cresol	1319-77-3	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.00	0.00
227	Toluene	108-88-3	4.69	3.35	0.00	0.00	0.00	3.35	1.24	0.00	1.24	0.00	0.10	0.00

Corporate Manufacturing Engineering Center, Toshiba Corp.

33, Shin-isogo-cho, Isogo-ku, Yokohama, Kanagawa Pref. 235-0017 R&D of manufacturing technologies

Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
227	Toluene	108-88-3	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.00	0.00

Yokohama Complex, Toshiba Corp.

8, Shin-sugita-cho, Isogo-ku, Yokohama, Kanagawa Pref. 235-8522 R&D of semiconductors

Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
43	Ethylene glycol	107-21-1	0.31	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.31	0.00	0.00	0.00
207	Copper salts (water-soluble, except complex salts)	Metal compounds	0.43	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.43	0.00	0.00	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	25.30	0.18	1.20	0.00	0.00	1.38	0.00	0.00	0.00	0.00	23.93	0.00
346	Molybdenum and its compounds	Metal compounds	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00

Mie Operations, Toshiba Corp.

2121, Oaza-nao, Asahi-cho, Mie-gun, Mie Pref. 510-8521 Motors, transformers

Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
30	Polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3epoxypropane (liquid)	25068-38-6	50.31	0.00	0.00	0.00	0.00	0.00	10.06	0.00	10.06	40.25	0.00	0.00
40	Ethylbenzene	100-41-4	10.90	8.17	0.00	0.00	0.00	8.17	2.73	0.00	2.73	0.00	0.00	0.00
63	Xylene	1330-20-7	11.41	8.55	0.00	0.00	0.00	8.55	2.85	0.00	2.85	0.00	0.00	0.00
202	Tetrahydromethylphthalic anhydride	11070-44-3	20.86	0.00	0.00	0.00	0.00	0.00	4.17	0.00	4.17	16.69	0.00	0.00
224	1,3,5-trimethylbenzene	108-67-8	0.23	0.17	0.00	0.00	0.00	0.17	0.06	0.00	0.06	0.00	0.00	0.00
227	Toluene	108-88-3	3.01	2.26	0.00	0.00	0.00	2.26	0.75	0.00	0.75	0.00	0.00	0.00
230	Lead and its compounds	Metal compounds	0.49	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.39	0.00	0.00
312	Phthalic anhydride	85-44-9	1.31	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.26	1.05	0.00	0.00

Yokkaichi Operations, Toshiba Corp.

800, Yamanoisshiki-cho, Yokkaichi, Mie Pref. 512-8550 ICs

Reduction of HF in waste water

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
16	2-Aminoethanol	141-43-5	215.55	0.00	0.00	0.00	0.00	0.00	185.16	0.00	185.16	0.00	30.39	0.00
25	Antimony and its compounds	Metal compounds	0.18	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.07	0.00	0.00
43	Ethylene glycol	107-21-1	5.87	0.00	0.00	0.00	0.00	0.00	5.87	0.00	5.87	0.00	0.00	0.00
207	Copper salts (water-soluble, except complex salts)	Metal compounds	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	0.00	0.00
258	Piperazine	110-85-0	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00
260	Pyrocatechol	120-80-9	43.11	0.00	0.00	0.00	0.00	0.00	37.03	0.00	37.03	0.00	6.08	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	1419.00	1.10	25.46	0.00	0.00	26.55	0.00	0.00	0.00	0.00	1392.44	0.00
304	Boron and its compounds	Metal compounds	1.16	0.00	0.00	0.00	0.00	0.00	1.16	0.00	1.16	0.00	0.00	0.00
346	Molybdenum and its compounds	Metal compounds	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00

Himeji Operations, Toshiba Corp.

50, Kamiyobe, Yobe-ku, Himeji, Hyogo Pref. 671-1295 Precision electronic parts

Reduction of amount handled

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
231	Nickel	7440-02-0	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	0.21	0.00	0.13	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.08	0.00

Taishi Branch Works, Himeji Operations, Toshiba Corp.

300 Ikaruga, Taishi-cho, Ibo-gun, Hyogo Pref. 671-1595 Discrete semiconductor devices

Process changes

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
16	2-Aminoethanol	141-43-5	0.12	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.02	0.00
25	Antimony and its compounds	Metal compounds	1.76	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.32	1.44	0.00	0.00
40	Ethylbenzene	100-41-4	1.75	0.59	0.00	0.00	0.00	0.59	1.16	0.00	1.16	0.00	0.00	0.00
43	Ethylene glycol	107-21-1	0.14	0.00	0.02	0.00	0.00	0.02	0.04	0.00	0.04	0.00	0.08	0.00
63	Xylene	1330-20-7	10.52	3.13	0.00	0.00	0.00	3.13	7.39	0.00	7.39	0.00	0.00	0.00
224	1,3,5-trimethylbenzene	108-67-8	3.11	0.00	0.00	0.00	0.00	0.00	2.52	0.00	2.52	0.00	0.59	0.00
230	Lead and its compounds	Metal compounds	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.20
283	Hydrogen fluoride and its water-soluble salts	Group	50.61	0.20	2.19	0.00	0.00	2.39	0.00	0.00	0.00	0.00	48.23	0.00

Kitakyushu Operations, Toshiba Corp.

1-10-1, Shimoitozu, Kokurakita-ku, Kitakyushu, Fukuoka Pref. 803-8686 LSIs, optical semiconductor devices

Process changes

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treatedtransferred	Amount recycled
16	2-Aminoethanol	141-43-5	1.48	0.00	0.00	0.00	0.00	0.00	1.48	0.00	1.48	0.00	0.00	0.00
24	n-Alkylbenzenesulfonic acid and its salts (alkyl C=1014) Group	Group	5.14	0.00	0.00	0.00	0.00	0.00	5.14	0.00	5.14	0.00	0.00	0.00
40	Ethylbenzene	100-41-4	2.00	0.21	0.00	0.00	0.00	0.21	0.23	0.00	0.23	0.00	1.56	0.00
43	Ethylene glycol	107-21-1	0.63	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.63	0.00	0.00	0.00
63	Xylene	1330-20-7	8.12	0.96	0.00	0.00	0.00	0.96	1.22	0.00	1.22	0.00	5.94	0.00
224	1,3,5-trimethylbenzene	108-67-8	1.89	0.75	0.00	0.00	0.00	0.75	1.13	0.00	1.13	0.00	0.00	0.00
252	Arsenic and its inorganic compounds	Metal compounds	0.66	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	0.00	0.00
260	Pyrocatechol	120-80-9	0.16	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.00	0.00
266	Phenol	108-95-2	1.93	0.00	0.00	0.00	0.00	0.00	1.93	0.00	1.93	0.00	0.00	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	53.71	0.27	0.00	0.00	0.00	0.27	0.86	6.44	7.30	0.00	46.14	0.00
304	Boron and its compounds	Metal compounds	0.62	0.00	0.00	0.00	0.00	0.00	0.40	0.02	0.43	0.00	0.19	0.00

Oita Operations, Toshiba Corp.

3500, Oaza Matsuoka, Oita, Oita Pref. 870-0197 | System LSIs | Process changes

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
16	2-Aminoethanol	141-43-5	72.01	0.00	0.00	0.00	0.00	0.00	69.86	0.00	69.86	0.00	2.16	0.00
43	Ethylene glycol	107-21-1	4.53	0.00	0.00	0.00	0.00	0.00	4.53	0.00	4.53	0.00	0.00	0.00
47	Ehylenediaminetetraacetic acid	60-00-4	0.66	0.00	0.66	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00
207	Copper salts (water-soluble, except complex salts)	Metal compounds	4.48	0.00	0.00	0.00	0.00	0.00	4.48	0.00	4.48	0.00	0.00	0.00
230	Lead and its compounds	Metal compounds	0.94	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.07	0.44	0.00	0.44
258	Piperazine	110-85-0	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00
260	Pyrocatechol	120-80-9	5.84	0.00	0.00	0.00	0.00	0.00	5.67	0.00	5.67	0.00	0.17	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	307.53	0.08	19.06	0.00	0.00	19.14	22.69	0.00	22.69	0.00	265.70	0.00
304	Boron and its compounds	Metal compounds	0.59	0.07	0.00	0.00	0.00	0.07	0.52	0.00	0.52	0.00	0.00	0.00

Nasu Operations, Toshiba Medical Systems Corp.

1385, Shimoishigami, Otawara, Tochigi Pref. 324-8550 | Medical equipment | Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
1	Zinc compounds (water-soluble)	Metal compounds	0.34	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.24	0.00	0.00
30	Polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3epoxypropane (liquid)	25068-38-6	23.38	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.47	22.91	0.00	0.00
227	Toluene	108-88-3	0.18	0.15	0.00	0.00	0.00	0.15	0.03	0.00	0.03	0.00	0.00	0.00
230	Lead and its compounds	Metal compounds	0.47	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.27	0.00	0.18
231	Nickel	7440-02-0	0.21	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.14	0.00	0.00
340	4,4'-methylenedianiline	101-77-9	4.48	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.09	4.39	0.00	0.00

Kanuma Operations, Toshiba Lighting & Technology Corp.

1-1 Satsuki-cho, Kanuma, Tochigi Pref. 322-0014 | Fluorescent lamps | Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
175	Mercury and its compounds	Metal compounds	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00
230	Lead and its compounds	Metal compounds	33.77	0.00	0.00	0.00	0.00	0.00	1.69	0.00	1.69	32.08	0.00	0.00

Fukaya Operations, Toshiba Matsushita Display Technology Co., Ltd.

1-9-2, Hatara-cho, Fukaya, Saitama Pref. 366-8510 | LCD | Revision of LCD glass process

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
16	2-Aminoethanol	141-43-5	107.46	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	53.35	54.05
243	Barium and its water-soluble compounds	Metal compounds	10.40	0.00	0.00	0.00	0.00	0.00	1.73	0.00	1.73	8.67	0.00	0.00
252	Arsenic and its inorganic compounds	Metal compounds	1.95	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.32	1.63	0.00	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	84.49	0.00	2.98	0.00	0.00	2.98	0.00	0.00	0.00	0.00	81.50	0.00
304	Boron and its compounds	Metal compounds	6.23	0.00	0.00	0.00	0.00	0.00	1.03	0.00	1.03	5.19	0.01	0.00
307	Poly(oxyethylene) alkyl ether (alkyl C=12-15)	Group	0.32	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.29	0.00	0.03	0.00
346	Molybdenum and its compounds	Metal compounds	2.72	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.39	0.02	0.00	2.32

Fuchu Operations, Toshiba Elevator and Building Systems Corp.

1, Toshiba-cho, Fuchu, Tokyo 183-8511 | Elevators | Reduction of solvents

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
40	Ethylbenzene	100-41-4	3.83	1.10	0.00	0.00	0.00	1.10	1.34	0.00	1.34	1.38	0.00	0.00
63	Xylene	1330-20-7	6.63	1.91	0.00	0.00	0.00	1.91	2.38	0.00	2.38	2.34	0.00	0.00
227	Toluene	108-88-3	1.58	0.43	0.00	0.00	0.00	0.43	0.52	0.00	0.52	0.63	0.00	0.00

Mishima Works, Toshiba TEC Corp.

6-78 Minami-cho, Mishima, Shizuoka Prf. 411-8520 | MFP(Multi-Function Peripherals) | Appropriate management

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
227	Toluene	108-88-3	0.15	0.15	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
230	Lead and its compounds	Group	2.78	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.31	2.47	0.00	0.00
283	Hydrogen fluoride and its water-soluble salts	Group	0.60	0.60	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00
311	Manganese and its compounds	Metal compounds	126.05	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.26	125.79	0.00	0.00

Fuji Operations, Toshiba Carrier Corp.

336 Tadewara, Fuji-shi, Shizuoka Pref. 416-0931 | Air conditioners, compressors | Change paint process

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
1	Zinc compounds (water-soluble)	Metal compounds	0.93	0.00	0.08	0.00	0.00	0.08	0.24	0.00	0.24	0.62	0.00	0.00
16	2-Aminoethanol	141-43-5	2.01	0.02	0.04	0.00	0.00	0.07	0.00	0.00	0.00	0.66	1.27	0.00
40	Ethylbenzene	100-41-4	1.62	1.07	0.00	0.00	0.00	1.07	0.03	0.00	0.03	0.52	0.00	0.00
63	Xylene	1330-20-7	6.85	4.25	0.00	0.00	0.00	4.25	0.10	0.00	0.10	2.50	0.00	0.00
64	Silver and its water-soluble compounds	Metal compounds	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
68	Chromium and chromium( ) compounds	Metal compounds	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00
85	Chlorodifluoromethane	75-45-6	0.90	0.01	0.00	0.00	0.00	0.01	0.51	0.00	0.51	0.39	0.00	0.00
101	2-Ethoxyethyl acetate	111-15-9	0.13	0.13	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
224	1,3,5-trimethylbenzene	108-67-8	0.22	0.22	0.00	0.00	0.00	0.22	0.01	0.00	0.01	0.00	0.00	0.00
227	Toluene	108-88-3	5.99	2.09	0.00	0.00	0.00	2.09	0.04	0.00	0.04	3.87	0.00	0.00
230	Lead and its compounds	Metal compounds	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00
231	Nickel	7440-02-0	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00
299	Benzene	71-43-2	0.30	0.05	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.25	0.00	0.00
304	Boron and its compounds	Metal compounds	0.24	0.00	0.02	0.00	0.00	0.02	0.03	0.00	0.03	0.18	0.00	0.00
309	Poly(oxyethylene) nonylphenyl ether	9016-45-9	0.12	0.01	0.07	0.00	0.00	0.07	0.00	0.00	0.00	0.05	0.00	0.00
310	Formaldehyde	50-00-0	0.23	0.23	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
311	Manganese and its compounds	Metal compounds	2.52	0.00	0.15	0.00	0.00	0.15	0.06	0.00	0.06	2.31	0.00	0.00

Osaka Operations, Toshiba Electric Home Appliance Manufacturing Co., Ltd

1-6, Ota Toshiba-cho, Ibaraki City, Osaka Prefecture 567-0013 | Refrigerator | Switching to lead-free solder

Substance number specified by the law	Substance name	CAS number	Amount handled	Release to atmosphere	Release to public water systems	Release to soil	On-site landfill	Amount released	Transfer as waste	Transfer to sewage	Amount transferred	Amount consumed	Amount removed and treated transferred	Amount recycled
25	Antimony and its compounds	Metal compounds	0.79	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.08	0.71	0.00	0.00
40	Ethylbenzene	100-41-4	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
63	Xylene	1330-20-7	0.57	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.54	0.00	0.00
227	Toluene	108-88-3	0.72	0.21	0.00	0.00	0.00	0.21	0.50	0.00	0.50	0.01	0.00	0.00
338	Methyl-1,3-phenylene diisocyanate	26471-62-5	8.11	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.07	8.05	0.00	0.00

✻ Toshiba Group designates benzene as a substance whose use in manufacturing processes is prohibited. However, according to the PRTR Law, benzene contained in gasoline at business sites that have gasoline tanks is within the scope of reporting.

✻ The balances may not match, as the above values are obtained by rounding at the third decimal place.

List of ISO 14001-certified Sites

Manufacturing Sites in Japan

Company	Site	ISO certified in	
Toshiba Corp.	Corporate Manufacturing Engineering Center	1997/4	
	Yokohama Complex	1997/9	
	Corporate Research & Development Center	1997/9	
	Hino Operations	1996/10	
	Fukaya Operations	1997/1	
	Ome Complex	1995/7	
	Oita Operations	1996/10	✻1 (2007/8)
	Microelectronics Center	1997/3	✻1 (2007/8)
	Kitakyushu Operations	1996/9	✻1 (2007/8)
	Yokkaichi Operations	1996/2	✻1 (2007/8)
	Himeji Operations; Himeji Operations-Semiconductor	1997/7	✻1 (2007/8) (Only semiconductor plants)
	Keihin Product Operations	1997/8	✻2 (2007/2)
	Hamakawasaki Operations	1997/1	✻2 (2007/2)
	Fuchu Complex	1996/6	✻3 (2007/1)
	Mie Operations	1997/1	✻3 (2007/1)
	Komukai Operations	1996/10	
Asia Electronics Inc.	Headquarters Factory	1999/8	
Inan Electronics, Inc.	Inan Electronics	2004/10	
Iwate Toshiba Electronics Co., Ltd.	Headquarters Factory	1997/9	✻1 (2007/8)
LT-Technica Co., Ltd.	Headquarters Operations, Ohito Factory, Tagata Factory	2002/3	
Kaga Toshiba Electronics Co	Headquarters Factory	1998/9	✻1 (2007/8)
Kawamata Seiki Co., Ltd.	Headquarters / Tomita Works	1999/9	
Kitashiba Electric Co., Ltd.	Headquarters Factory	1999/3	
Sapporo Plastic Recycle Corp.	Headquarters	2006/3	
TFPD Corp.	Headquarters Factory	1997/7	
Tec Manufacturing. Inc.	Jinda Factory	2005/7	
TERM Corp.	Headquarters	1997/7	
Toshiba El Control System Co., Ltd.	Kyushu Operations	1999/10	
	Shikoku Operations	2002/10	
Toshiba LSI Package Solutions Corp.	Headquarters / Fukuoka Works	1998/3	✻1 (2007/8)
	Oita Works Kitsuki district	1998/3	✻1 (2007/8)
Toshiba Elevator and Building Systems Corp.	Fuchu Operations	2001/8	✻5
	Uenohara Operations	1998/8	✻5 (2001/8)
Toshiba Elevator Products Corp.	Headquarters Factory	2002/8	✻5
Toshiba Visual-Equipment Corp.	Headquarters Factory	1998/3	
Toshiba Electric Appliances Co., Ltd.	Headquarters Factory	1998/8	
Toshiba Carrier Corp.	Fuji Operations	1997/4	
Toshiba Components Co., Ltd.	Mobara district	1998/9	✻1 (2007/8)
	Kimitsu district	1998/9	✻1 (2007/8)
Toshiba Lighting Systems Corp.	Tochigi Works	2000/9	
	Yamanashi Works	2000/9	
Toshiba Shomei Precision Corp.	Fukushima Works	1999/5	
	Echigo Kawaguchi Works	1999/5	
Toshiba Social Automation Systems Co., Ltd.	Akita Operations	2004/9	
Toshiba TEC Corp.	Ohito Business Center	1997/6	
	Mishima Works	1997/3	
	Home Electric Appliances Group	1997/3	
Toshiba Tely Corp.	Headquarters Factory	2000/3	
Toshiba Battery Co., Ltd.	Usuigawa Works	1998/7	
Toshiba Electro-Wave Products Co., Ltd.	Eniwa Operations	1999/7	
Toshiba Plant Systems & Services Corp.	Chiba Service Center	1999/12	
	Atsugi Works	1999/12	
Toshiba Hokuto Electronics Corp.	Headquarters Factory	1998/9	
Toshiba Home Appliance Corporation	Osaka Factory	1996/9	
	Aichi Factory	1997/3	
Toshiba Home Technology Corp.	Headquarters Factory	1998/5	
Toshiba Matsushita Display Technology Co., Ltd.	Ishikawa Works	1998/2	
	Uozu Works	1998/2	
Toshiba Misawa Media Devices Co., Ltd.	Headquarters Factory	1998/10	
Toshiba Multimedia Devices Co., Ltd.	Headquarters Factory	1998/10	
Toshiba Medical Systems Corp.	Nasu Operations	1996/3	
Toshiba Lighting & Technology Corp.	Yokosuka Operations	1996/10	
	Kanuma Operations	1998/3	
	Nagai Operations	1998/9	
Tosei Denki Co., Ltd.	Headquarters Factory	2004/9	
Nishinihon Kaden Recycle Corp.	Headquarters Factory	2002/6	
Hamaoka Toshiba Electronics Corp.	Headquarters Factory	1998/8	✻1 (2007/8)
Pearl Lamp Works, Co., Ltd.	Headquarters Factory	2004/7	
Harison Toshiba Lighting Corp.	Headquarters / Imabari Works	1998/7	
Himeji Toshiba E.P. Corp.	Headquarters Factory	1998/9	✻1 (2007/8)
Wako Denki Co., Ltd.	Headquarters	1998/1	✻1 (2007/8)
	Nogata Operations	2003/1	✻1 (2007/8)
Mobara Electronics Co., Ltd	Mobara Electronics	1998/8	✻1 (2007/8)
Wako Denki Co., Ltd.	Headquarters / Ibaraki Works	2001/3	
	Yamagata Works	2001/3	
	Tsukuba Operations	2007/3	

✻1 Toshiba Semiconductor Company, ISO certified company wide
✻2 Toshiba Power Systems Company, ISO certified company wide
✻3 Toshiba Transmission Distribution & Industrial Systems Company, ISO certified company wide
✻4 Social Infrastructure Systems Company, ISO certified company wide
✻5 Toshiba Elevator and Building System Co., Ltd, ISO certified company wide

Non-manufacturing Sites in Japan

Company	Site	ISO certified in	
Toshiba Corp.	Environmental Management Promotion Organization	2005/7	
	Semiconductor Company head office, sales offices	2005/4	← Operations and group companies were ISO certificated on a company-wide on August 1, 2007
	Power Systems Company Head office, sales offices and factories (Company-wide certification)	2007/2	
	Transmission Distribution & Industrial Systems Company Head office, sales offices and factories (Company-wide certification)	2007/1	
	Social Infrastructure Systems Company: Head offices, branch offices and group companies (Company-wide certification)	2007/11	
	Digital Media Network Company head office	2007/3	
TEC Information Systems Corp.	Headquarters, Tokyo Operations	2005/10	
TEC Engineering Corp.	Headquarters, branch offices, branches	2004/10	
TERM Corp.	Kitakanto Analysis Center	1997/7	
Toshiba Aqua Public Technos Corporation	Headquarters	2008/1	
Toshiba Medical Supply Co., Ltd	East Japan Branch, West Japan Branch, Distribution Center, Hongo Satellite Office	2007/11	
Toshiba I.S. Corp.	Toshiba Hamamatsucho Building	2005/11	
Toshiba Elevator and Building Systems Corp.	Headquarters, branch offices, branches, service centers, sales offices, factories and group companies	2001/8	
Toshiba Carrier Corporation	Headquarters	2006/4	
Toshiba Lighting Systems Corp.	Saitama Operations	2000/9	
Toshiba Shomei Precision Corp.	Kawasaki Operations	1999/5	
Toshiba Information Equipments Co., Ltd.	Headquarters	2002/11	
Toshiba TEC Corp.	Headquarters	2005/6	
Toshiba TEC Business Solutions Corp.	Headquarters	2002/11	
Toshiba Digital Media Engineering Corp.	Headquarters	2004/10	
Toshiba Device Corp.	Headquarters, branches, sales offices	2003/12	✻1 (2007/8)
Toshiba Documents Corp.	Printing Center	2006/3	
Toshiba Solutions Corp.	Fuchu Engineering Center	2005/7	
	Fuchu Solution Center, Shinagawa Operations	2007/4	
Toshiba Personal Computer System Corp.	Headquarters, Tokyo Operations	1999/12	
Toshiba Matsushita Display Technology Co., Ltd.	Headquarters	2006/9	
Toshiba Plant Systems & Services Corp.	Headquarters, operations, branch offices, branches, sales offices	1999/12	
Toshiba Logistics Corp.	Headquarters, distribution centers, sales offices	2002/12	
Toshiba Lighting & Technology Company	Metropolitan Headquarters, Minami Shinagawa JN Headquarters	2008/3	
Harison Toshiba Lighting Corp.	Tokyo Operations, branch offices, sales offices	2006/2	
Toshiba Discrete Semiconductor Technology Corporation	Headquarters	2007/8	✻1
MT Device Corporation	Headquarters	2007/8	✻1
Device Link Corporation	Headquarters	2007/8	✻1
Toshiba Communication System Service Corporation	Headquarters	2007/11	✻4
Toshiba Social System Facilities Corporation	Headquarters	2007/11	✻4
Toshiba Electric Service Corporation	Headquarters	2007/11	✻4
Toshiba Electro-Wave Products Co., Ltd	Headquarters	2007/11	✻4
Toshiba Tokki Denshi Corporation	Headquarters	2007/11	✻4

Manufacturing Sites Overseas

Americas	Toshiba America Business Solutions, Inc.	1998/9
	Toshiba America Consumer Products, L.L.C.	2002/1
	Toshiba International Corp.	2003/12
	Toshiba Consumer Products Mexico, PT	2002/8
	Toshiba Transmission Distribution Devices Brazil, PT	1999/1
	Toshiba do Brasil, S.A.	1999/1
Europe	Toshiba Information Systems (UK) Ltd.	1997/4
	Toshiba Europe GmbH	1996/10
	Toshiba Semiconductor GmbH	1997/4
	Toshiba TEC Europe Imaging Systems S.A.	1997/11
	Toshiba Lighting Products (France) S.A.	2000/1
Asia	Advanced flat panel display	2003/11
	Thai Toshiba Electric Industries Co., Ltd.	1998/6
	TIM Malaysia	1998/4
	Toshiba TEC Indonesia Pte. Ltd	1998/8
	Toshiba TEC Singapore Pte. Ltd	1998/4
	Harison Engineering(Korea)Co., Ltd.	2005/12
	Hangzhi Machinery & Electronics Co., Ltd.	2000/9
	Hangzhou Toshiba Home Technology Electronics Co., Ltd.	2005/4
	Jiangxi Toshiba Electronic Materials Company Limited	2005/12
	Changzhou Toshiba Transformer Co., Ltd.	2001/12
	Dalian Toshiba Television Co., Ltd.	1999/8
	Toshiba Electronics Malaysia Sdn. Bhd.	1997/9
	Toshiba Elevator (Shanghai) Co., Ltd.	2002/2
	Toshiba Elevator (Shenyang) Co., Ltd.	2002/7
	Toshiba Semiconductor (Thailand) Co., Ltd.	1998/9
	Toshiba Semiconductor (Wuxi) Co., Ltd.	1999/3
	Toshiba Hokuto Electronic Devices (Thailand) Co., Ltd.	2001/3
	Toshiba Lighting Components (Thailand) Ltd.	2001/9
	Toshiba Consumer Products Indonesia, PT	1999/2
	Toshiba Consumer Products (Shenzhen), Co., Ltd.	2005/3
	Toshiba HA Manufacturing (Nanhai) Co., Ltd.	2007/7
	Toshiba Consumer Products (Thailand) Co., Ltd.	1998/4
	Philippine Operations Toshiba Information Equipment Co., Ltd	1998/3
	Toshiba Information Equipment (Hangzhou) Co., Ltd.	2003/6
	Toshiba Hydro Power (Hangzhou) Co., Ltd.	2007/2
	Toshiba Dalian Co., Ltd.	1999/8
	Toshiba Baiyun Vacuum Interrupters (Jinzhou) Co., Ltd.	2007/10
	Toshiba Copying Machine (Shenzhen) Co., Ltd.	1999/5
	Fuzhou TLT Lighting Co., Ltd.	2004/8
	Harison Toshiba Lighting (Kunshan) Co., Ltd.	2005/3
	Dalian Toshiba Broadcasting Systems Co., Ltd	2007/7

Non-manufacturing Sites Overseas

Europe	Westinghouse Electric Sweden AB	1996/11
	Toshiba TEC U.K. Imaging Systems Ltd.	2004/12
	Toshiba TEC Northern Europe	2004/7
Asia	Toshiba Electronics Korea Corporation	2007/3
	Toshiba Singapore Pte., Ltd.	1998/5

As of March 31, 2008

History of Our Activities

Promoting Organization	Year	Actions, Activities, and Topics
Department restructured into four groups by adding a group in charge of oversea issues.	2008	Issued the Environmental Report 2008.
Department restructured into three groups: Planning, Eco Products (ECP), and Business Process.	2007	Created the Environmental Vision 2050.
Established the Asia and Oceania Environment Division.	2006	Integrated the conventional Toshiba environmental audit systems to start operating an environment management audit.
Established the America Environment Division.	2005	Issued a brochure “Factor T”.
Renamed the “Corporate Environment Management Division”. Established the China Environment Division.	2004	Created the 4th Voluntary Environmental Plan. Created the Environmental Vision 2010. Issued the CSR Report 2004.
Established the Europe Environment Division.	2003	
	2002	Achieved zero waste emissions. Introduced material flow cost accounting.
Renamed the “Environmental Protection Promotion Division”.	2001	Awarded with the Green Grand Prize, Global Environment Gland Prize, etc.
	2000	Created the 3rd Voluntary Environmental Plan. Announced environmental accounting.
Renamed the “Environmental Protection & Recycling Planning Center”.	1999	Decommissioned all incinerators.
	1998	Issued the Environmental Report 1998.
	1997	Revised the Basic Rules for Environmental Protection All the Toshiba factories have achieved ISO 14001 Certification.
	1996	Created the 2nd Voluntary Environmental Plan.
Renamed the “Environmental Protection Center”.	1995	Created New Basic Rules for Environmental Protection Started efforts to obtain ISO 14001 Certification.
	1994	Totally eliminated 1.1.1-trichloroethane.
	1993	Created the 1st Voluntary Environmental Plan. Totally eliminated certain freons for cleaning. Started the “Environmental Audit System in Toshiba on the basis of Eco-Responsibility (EASTER)”.
Set up the Environment Management Committee.	1992	
	1991	Environmental philosophy/slogan, product assessment, and energy saving targets
	1990	Environmental Structural Design Guidelines, freezing the amount of industrial waste
Introduced a Toshiba group-wide environmental management system.	1989	Basic rules for environmental Protection, ODS reduction plan, and environmental audit
Established an Environmental Control Center.	1988	

Editor’s Postscript

A decade has gone by since we first issued an environmental report. We have since issued the environmental report and the CSR report on five respective occasions to date. This time, we are re-issuing an environmental report after an interval of five years.
While compiling information required for the report, we found that the content that we had to convey to our stakeholders became significantly wider and deeper than was the case several years ago. This is because we have to clearly convey not only the results we obtained from our investigation but also Toshiba Group’s vision for global environmental issues.
Toshiba Group will continue to convey useful information to you as far as possible, as well as committing ourselves unceasingly to solving global environmental problems.

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URL http://www.toshiba.co.jp/csr/en/contact/

The report is also available on the Toshiba website:
URL http://www.toshiba.co.jp/env/en

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