

The Environment Greening of Products

Development of Products with the Highest Environmental Performance

We pursue the highest level of environmental performance for all products developed, and advance "Greening of Products" activities aimed at reducing environmental impact throughout the product life cycle.

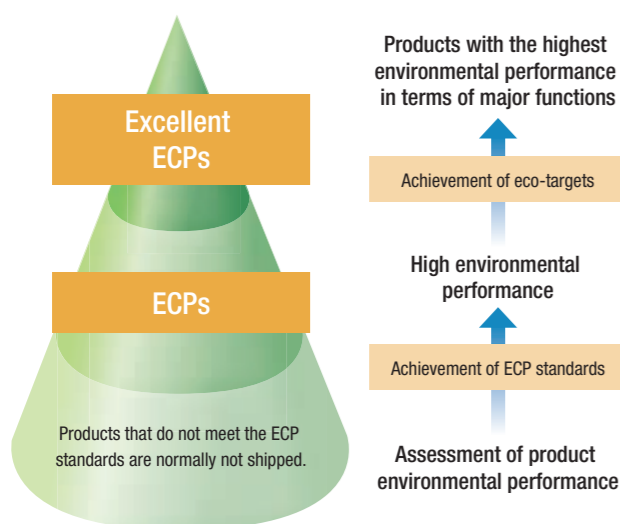
First, in the stages from business strategy to product planning, based on technological and competitor trends, we set "eco-targets" for the development of products with the highest environmental performance at the time of product release. Then, in the development and design stages, we perform environmental assessments of products to make sure that the products comply with laws and regulations and meet the ECP standards*¹ in all three aspects*² (mitigation of climate change, efficient use of resources and management of

chemicals) through all stages of their life cycle.

In the product approval stage, we check to see the level of achievement of the eco-targets and compliance with the ECP standards. We also certify those products with the highest level of environmental performance as Excellent ECPs.

The demand for social infrastructure products, increased consumption of electricity and resources are concerns everywhere. In order to reduce environment impact, we aim at creating and further increasing the number of Excellent ECPs with the highest environmental performance in the industry. In fiscal 2014, we were able to provide 13 products as Excellent ECPs.

Basic policy for the Greening of Products

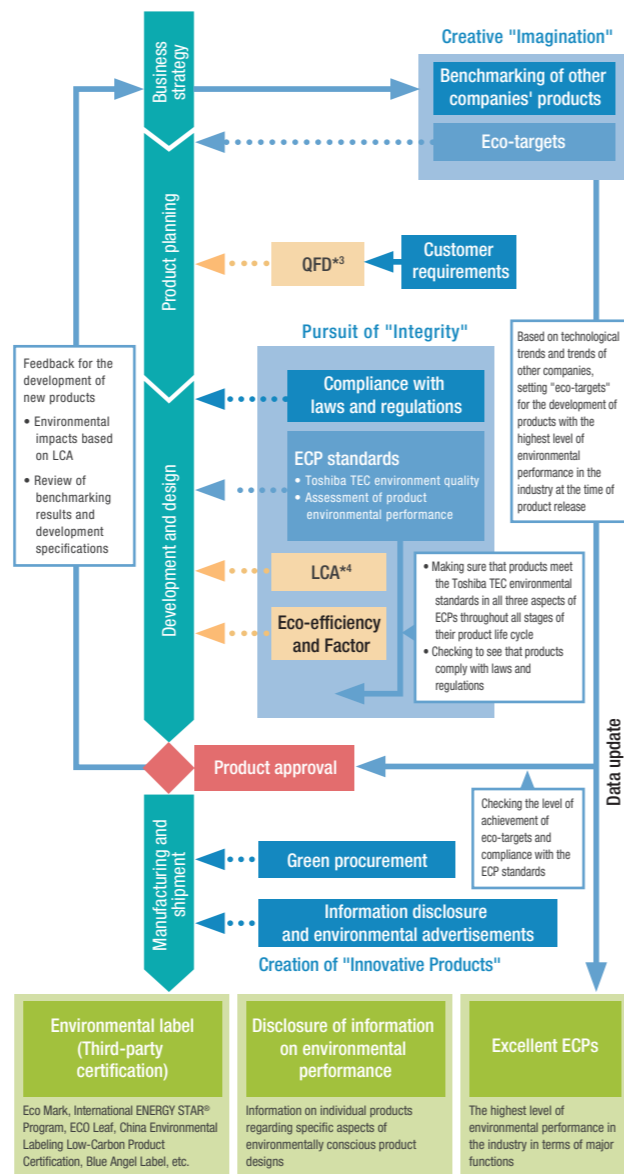


*1: Environmentally Conscious Products (ECPs) are designed to minimize environmental impact throughout all stages of their product life cycle, including procurement of materials, manufacturing, distribution, usage, disposal and recycling.

*2: Overview of the three elements of ECPs

Mitigation of Climate Change	Efficient Use of Resources	Management of Chemicals
<ul style="list-style-type: none"> Reductions in power consumption Reductions in standby electricity consumption Visualization of power consumption Energy-saving mode Shipment mode, etc. 	<ul style="list-style-type: none"> Reductions in the use of raw materials Use of recycled materials Ease of disassembly Reductions in the use of packaging materials Reductions in the use of supplies Upgrades, longer useful lives, etc. 	<ul style="list-style-type: none"> Reductions in the use of specific hazardous substances Green Procurement Distribution of information on chemicals Compliance with chemical regulations in different countries, etc.

System for the Greening of Products



*3 QFD: Quality Function Deployment

*4 LCA: Life Cycle Assessment

Main Products Certified as Excellent ECPs in Fiscal 2014

M-8750 POS Terminal for General Merchandise Stores

(Released in June 2014)

- Achieved the highest energy savings*
Power consumption for applications: 40 W
- Achieved the highest resource savings*
Recycled plastics for packing



TCxWave A30 POS Terminal

(Released in September 2014)

- Achieved the highest energy savings*
(Power in power saving mode: 1.7 W)
- "Only one" product* that covers the applications of POS, kiosk and self-service



e-STUDIO207L Series Medium-Speed Monochrome MFP

(Released in June 2014)

- Achieved the highest level of environmental performance* on 3R aspects (Reduce, Reuse, Recycle) with the smallest mass and at least 5% use of recycled plastics through the unique toner recycling system



Smart Receipt® Electronic Receipt System

(Released in October 2014)

- "Only one" product* that has saved resources by significantly reducing the consumption of receipt paper through electronic receipt (resource saving)



e-STUDIO557 Series High-Speed Monochrome MFP

(Released in June 2014)

- Achieved the highest level of environmental performance* on 3R aspects (Reduce, Reuse, Recycle) with at least 5% use of recycled plastics through the unique toner recycling system



Loops LP301/RD301 Paper Reusing System

(Released in December 2014)

- "Only one" product* that erases, sorts and digitalizes printed data at the same time



* At the time of product release, and not guaranteed at the current state.

The Environment Greening of Products

Green Procurement

We implement green procurement at the procurement stage of raw materials. We also aim to procure items with lower environmental impact from suppliers, which actively promote environmental protection.

Promotion of Environmental Protection at Suppliers

We preferentially procure materials from suppliers, who are actively promoting environmental protection.

Environmental Protection

1. Set up an environment policy.
2. Maintain the environmental protection system.
3. Establish systems for education and to check whether education is provided.

The Japanese, English and Chinese editions of the Guidelines for Green Procurement are available on the website.

Control on Environment-Related Substances in Procured Items

We request our suppliers to comply with environment-related laws, regulations and control standards, such as RoHS and REACH that spread from Europe to the rest of the world. We also request them to provide parts and raw materials with lower environmental impact.

Control on Environment-Related Substances

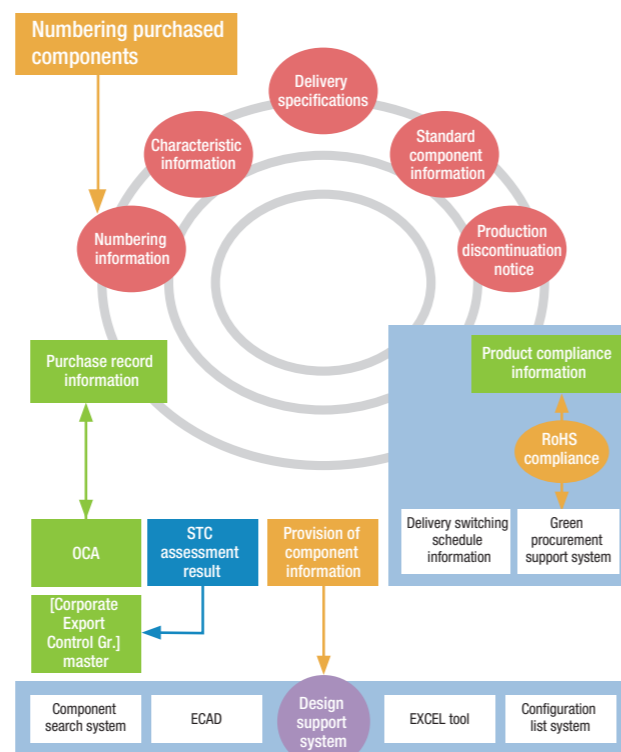
- 1 Thoroughly make control on whether environment-related substances are contained in delivered items known to relevant divisions and suppliers.
- 2 Satisfy requirements for the management of environment-related substances.
- 3 Respond to the survey whether environment-related substances are used.
- 4 Obtain information required to respond to the above survey.
- 5 Perform analysis and measurement, and obtain analysis results from suppliers (when necessary).
- 6 Investigate and understand suppliers' control system.

Data Utilization

We provide environmental performance data from the green procurement support system to various in-house systems via the global component database, allowing the design, production and procurement divisions to utilize the data.

We also request our suppliers to provide data on chemicals in products in accordance with the survey patterns based on our Guidelines for Green Procurement, to collect data on the green procurement support system. We disclose the data obtained and use them to develop ECPs.

Component database and design support system



Component search system screen

Collection and Recycling in Worldwide Regions

We are committed to collecting and recycling end-of-use products on a global basis.

Japan

Our sales sites throughout Japan collect end-of-use products. We also carry out process checks on our recycling contractors to increase the collection and recycling rates.

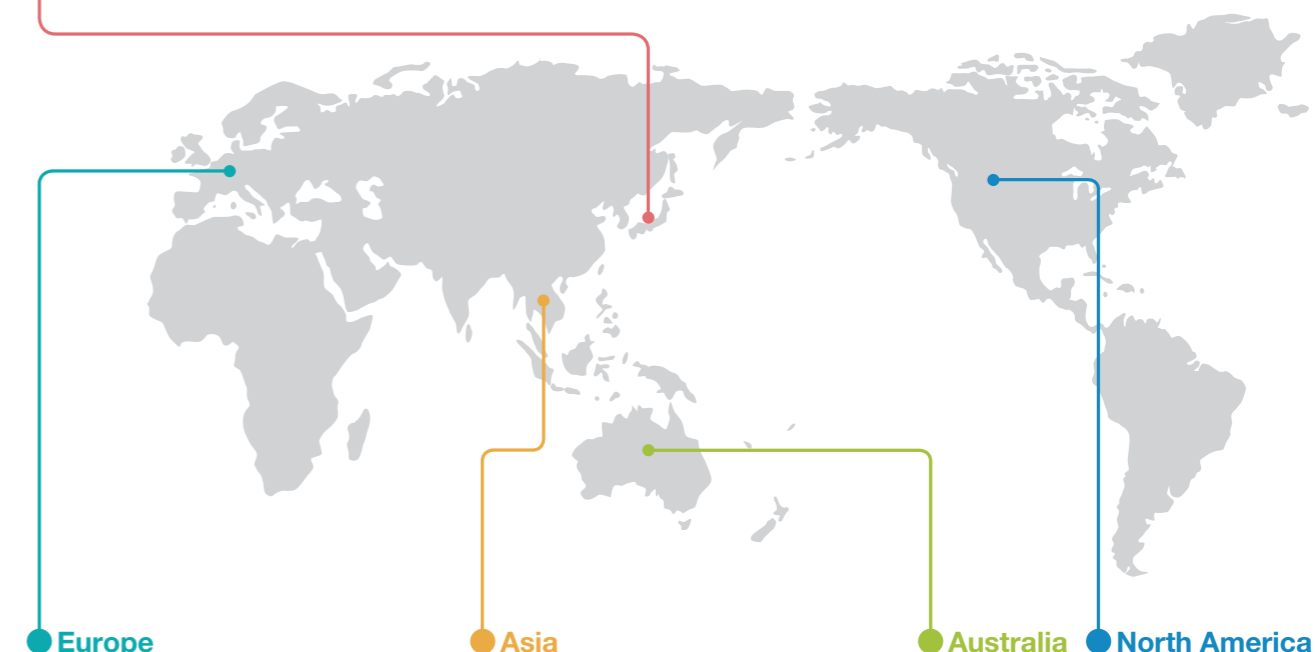


Recycling process through manual disassembly

We use the packaging reuse system that collects and reuses packaging materials for some products.



Packaging material collected



Europe

In France, TOSHIBA TEC France Imaging Systems S.A. implements the toner cartridge collection and recycling program in collaboration with Conibi. Collected toner cartridges are recycled into raw materials at ClozDloop® in Belgium.

Asia

In Singapore, TOSHIBA TEC SINGAPORE PTE LTD. implements the toner cartridge collection and recycling program in collaboration with Toshiba Asia Pacific Pte Ltd. and Toshiba Data Dynamics Pte Ltd. This contribution to the reduction of waste provided the Singapore 3R Packaging Awards in 2011 and later.



Australia

We participate in the "Zero Waste to Landfill" recycling program in collaboration with Close the Loop®. Almost all of the toner cartridges that have been collected from copiers and MFPs through this program are recycled.



Collection box

Mitigation of Climate Change

Minimizing the increase in CO₂ emissions due to energy consumption

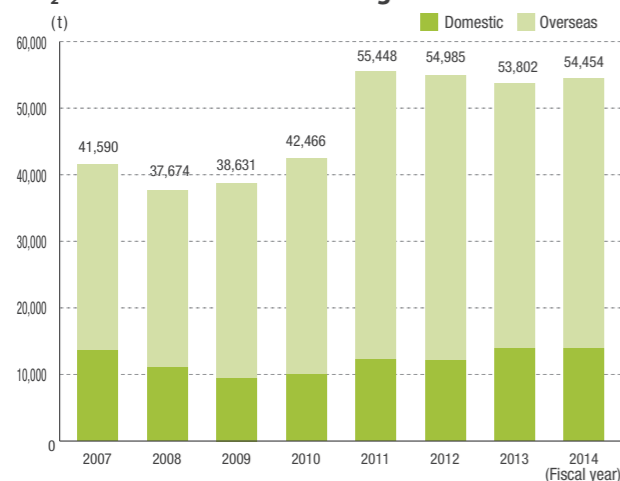
We effectively use energy to reduce CO₂ emissions associated with energy consumption.

In fiscal 2011, CO₂ emissions increased overall due to the incorporation of the parts business into overseas sites. However, as a result of environmental measures undertaken, such as switching to LED lighting and adding thermal insulation to our facilities, we mitigated the increase in CO₂ emissions even with the increased production.

We have also started to collect and analyze data on peak electricity usage in summer, winter and daytime based on the Japanese Energy Saving Act at our domestic sites.

Note: We adopt power received end as electricity coefficient in Japan: 4.53 t-CO₂/10,000 kWh for fiscal 2007, 3.73 t-CO₂/10,000 kWh for fiscal 2008, 3.51 t-CO₂/10,000 kWh for fiscal 2009, 3.50 t-CO₂/10,000 kWh for fiscal 2010, 4.76 t-CO₂/10,000 kWh for fiscal 2011, 4.87 t-CO₂/10,000 kWh for fiscal 2012 and 5.10 t-CO₂/10,000 kWh for fiscal 2013. Outside Japan, from fiscal 2006 to fiscal 2012, we adopted power receiving end for fiscal 2006 based on GHG Protocol data continuously. Since fiscal 2013, we have been adopting power received end for fiscal 2009.

CO₂ emissions at manufacturing sites



Reducing CO₂ emissions associated with product logistics

In fiscal 2014, we switched from individual shipping to full truckload shipping for imported parts. As a result, load efficiency was increased, leading to a reduction in the number of trucks required.

In addition, we reduced the size and weight of new products that were developed to control CO₂ emissions resulting from product logistics.

CO₂ emissions associated with domestic product logistics



TOPICS Super insulation work

TOSEI CORPORATION

We effectively use energy through the upper-insulated roof.



TOPICS Energy saving survey and LED lighting

TOSHIBA TEC INFORMATION SYSTEMS (SHENZHEN) CO., LTD.

We have chosen LED lighting based on the energy saving survey results.



The TOSHIBA TEC Group does not emit any greenhouse gases other than CO₂.

Efficient Use of Resources

Minimizing the increase in total volume of waste generated

To efficiently use resources, we work on the reduction of the total volume of waste generated, by recycling and other methods. In past years, the total volume of waste generated tended to increase in accordance with our business expansion. However, in fiscal 2014, we undertook environmental measures, such as reducing corrugated cardboard waste and reusing overseas shipping pallets. As a result, even with increased production, we mitigated the increase in waste generated. In fiscal 2014, we exchanged information with our recycler in Japan, and will continuously work on the effective use of resources in collaboration with our recyclers.

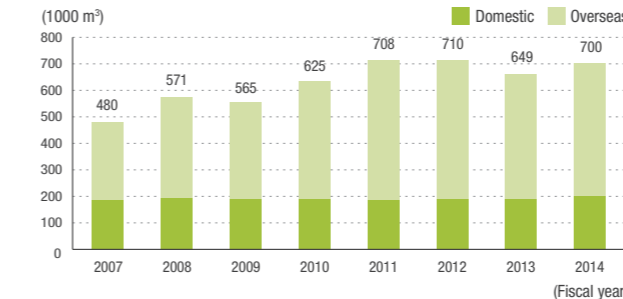
Total volume of waste generated



Efficient use of water

A small volume of water is used in the production process and most of it is used for daily needs including toilets, cafeterias and residences. The recent use of water remains almost the same. We will continuously encourage our employees to save water through posters.

Volume of water received



TOPICS Information exchange with the recycler

TOSHIBA TEC CORPORATION, Shizuoka Business Center

We observed the disassembly process of end-of-use products and exchanged opinions with our recycler.



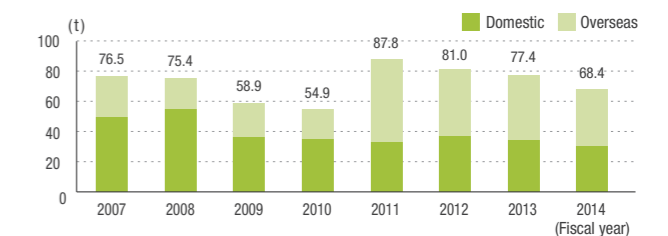
Management of Chemical Substances

Reducing chemical substances used in the manufacturing process

We classify chemical substances applicable to the environmental laws and regulations into three types: "prohibition," "reduction" and "control."

We strive to reduce emissions of chemical substances, which are classified into "reduction," to the atmosphere and water that directly affect the environment. In fiscal 2011, emissions of chemical substances increased due to the incorporation of the parts business into overseas sites. However, we reduced the overall emissions by 11% in fiscal 2014, compared to fiscal 2013, as a result of introducing production equipment with low emissions of chemical substances and reviewing the process.

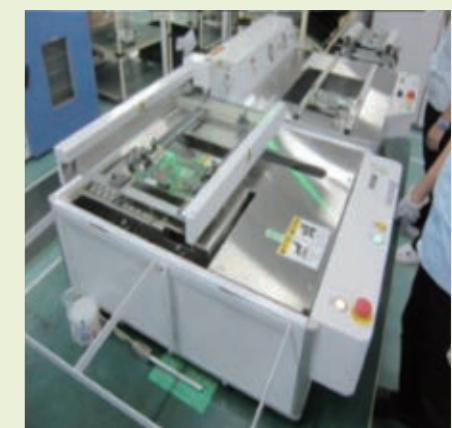
Emissions of chemical substances



TOPICS Multi-spot flow

TOSHIBA TEC Information Systems (Shenzhen) Co., Ltd., TOSHIBA TEC MALAYSIA MANUFACTURING SDN. BHD., P.T. TEC INDONESIA

We introduced the multi-spot flow equipment. It reduced chemical substances used in the pre-soldering process by applying them only to necessary areas instead of the entire area.



The TOSHIBA TEC Group has abolished the use of ozone-depleting substances.

Practicing Environmental Management under the Corporate Philosophy and CSR Activities

TOSHIBA TEC Group's Basic Policy for the Environment

We, the TOSHIBA TEC Group as a "global enterprise," which offers global one stop solution to the nucleus putting retail business, printing business, AI/IJ business, contribute to society by reducing our customers' and our environmental impacts through "Monozukuri" or by creating environmentally conscious products.

We practice global sustainability with the aim of realizing a low-carbon society, recycling-based society and natural symbiosis society by seeking a combination of business and environmental activities, in order to hand down to our next generation, the health of the global environment as an irreplaceable asset.

Given Greening of Products, Greening of Process and Green Management as the important pillars of environmental management, the TOSHIBA TEC Group is actively driving environmental protection, to contribute to the reduction of environmental impacts in business fields such as stores and offices.

1. Greening of Products

- The TOSHIBA TEC Group pursues the highest level of Environmental performance on our products, then, aim at creation of Excellent ECPs and wide acceptance in the market.
- The TOSHIBA TEC Group reduces environmental impacts throughout its product life cycle through green procurement of environmentally conscious materials and parts, 3Rs, energy conservation, and abolition of certain chemical substances, in order to provide ECPs on a global basis.
- The TOSHIBA TEC Group advances distribution of ECPs and services, to contribute to the reduction of environmental impacts of the products or services when used by customers.
- The TOSHIBA TEC Group contributes to the establishment of a recycling-based society, while collecting and recycling end-of-use products and reusing end-of-use parts.

2. Greening of Process

- The TOSHIBA TEC Group strives toward resource and energy conservation, as well as correct control of chemical substances, for environmentally conscious manufacturing, marketing and servicing, allowing for regional characteristics.
- The TOSHIBA TEC Group aims at realizing a low-carbon society through "Monozukuri," by creating ECPs and by improving the efficiency of logistics operations.

3. Green Management

- The TOSHIBA TEC Group specifies and promotes objectives and targets for its process, products and services to assess environmental impacts including biodiversity, reduce environmental impacts and prevent pollution, and continually strives to improve the environment.
- The TOSHIBA TEC Group complies not only with laws and regulations applied in countries or regions all over the world, but also with industry guidelines, which it has endorsed, for environmental protection.
- The TOSHIBA TEC Group provides environmental education, conducts educational campaigns, and expands each employee's environmental awareness to promote environmental activities.
- The TOSHIBA TEC Group actively and widely discloses its environmental policy and activities inside and outside the Group.
- The TOSHIBA TEC Group participates in society-wide environmental activities in cooperation with administrations, communities and bodies concerned.

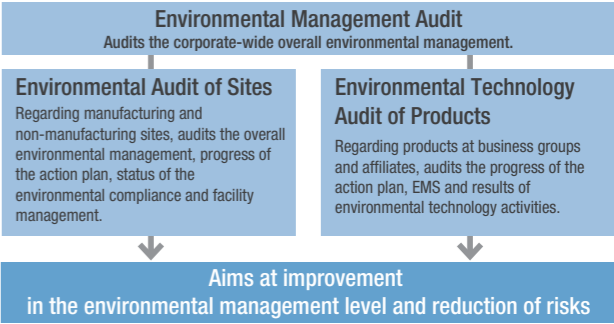
Environmental promotion structure



Corporate Environmental Management Conference

TOSHIBA Group's Environmental Audit System

We have been annually conducting environmental audits in accordance with the comprehensive Environmental Audit System and standards established by TOSHIBA since fiscal 1993, to improve environmental management. Based on this audit system, we conduct corporate-wide environmental management audits, environmental audits of sites for manufacturing and non-manufacturing sites, and environmental technology audits of products at business groups on an annual basis.



Environmental Accounting

We adopt environmental accounting to quantitatively understand environmental costs and benefits, and utilize the quantitative data as guidelines for business activities.

Costs and benefits

For environmental protection costs on a consolidated basis in 2014, total capital investments were 160 million yen and total expenses were 790 million yen. We used environmental costs, especially for the prevention of global warming and energy-saving measures. Total environmental benefits were 530 million yen.

Target site: TOSHIBA TEC Head Office, Shizuoka Business Center, three domestic manufacturing affiliates and six overseas manufacturing affiliates

Target period: April 1, 2014 to March 31, 2015

Note: Figures are partly estimated.

Environmental costs

Category	Description	Investments		Costs		Change in costs from fiscal 2013	
		Consolidated	Non-consolidated	Consolidated	Non-consolidated	Consolidated	Non-consolidated
1) Business area costs	Reduction of environmental impacts (1) to (3)	134.6	102.0	193.8	95.5	14.9	-11.9
(1) Pollution prevention costs	Prevention of air, water and soil pollution, etc.	27.3	24.3	48.2	5.0	16.5	4.7
(2) Global environmental protection costs	Global warming prevention, ozone layer protection, etc.	105.1	77.7	59.0	41.5	12.1	-1.8
(3) Resource circulation costs	Recycling of waste, etc.	2.2	0.0	86.6	49.0	-13.7	-14.8
2) Upstream/downstream costs	Green procurement, collection and recycling of end-of-use products, etc.	0.0	0.0	103.7	98.9	0.1	-0.9
3) Administration costs	Establishment of EMS, environmental education, tree-planting/clean-up activities, etc.	22.0	14.5	349.6	314.2	38.0	30.0
4) R&D costs	Technical development for ECPs, etc.	0.0	0.0	128.6	128.6	1.1	1.1
5) Public relations costs	Donations and support to groups/organizations, etc.	0.0	0.0	16.4	13.5	-11.0	-8.6
6) Environmental damage restoration costs	Recovery from soil pollution, etc.	0.0	0.0	0.5	0.5	1.0	0.4
Total		156.6	116.5	792.7	651.3	44.2	10.2

Environmental benefits

Category	Description	Amounts	Calculation method
A Actual benefits	Reduced charges for electricity and water, etc.	-76.6	The amount of money, such as electricity charges and waste disposal costs, that was saved compared with the previous year, plus earnings from the sale of objects with value.
B Assumed benefits	Reduced environmental impacts on water and atmosphere in monetary value	-1,186.9	The amount of money was calculated by multiplying the cadmium equivalent value of each substance obtained from environmental standards and the American Conference of Governmental Industrial Hygienists Threshold Limit Value (ACGIH-TLV) by damage compensation for cadmium pollution. This method of calculation provides a means of showing reductions in environmental impacts on the atmosphere, hydrosphere and soil and makes it possible to compare the environmental impacts of different substances using the same standard by converting the impacts into monetary values.
C Customer benefits	Benefits of impacts reduced during product use in monetary value	1,788.8	Environmental impact reduction benefits during product use are evaluated in physical quantity units and monetary units. Energy-saving benefits are calculated by using the following equation: Benefits (yen) = Σ [(Annual power consumption of the previous product model - Annual power consumption of the current product model) x Number of products sold annually x Benchmark unit price of electricity]
Total		525.3	

A Actual benefits

Item	Reduction in environmental impacts	Benefits measured in monetary values (millions of yen)
Energy	-3,500 GJ	-131.8
Waste	13.0 t	63.5
Water	-9,500 m³	-8.3
Total		-76.6

B Assumed benefits

Item	Reduction in environmental impacts	Benefits measured in monetary values (millions of yen)
Benefits from reductions in emissions of chemicals	-18.6 t	-1,186.9

C Customer benefits

Item		Reduction in environmental impacts	Benefits measured in monetary values (millions of yen)
Benefits from reductions in environmental impacts during product use	Electricity	41,630,000 kWh	957.4
	Paper rolls	1,410 t	831.4
Total			1,788.8

* The reduction in environmental impacts indicates the difference in the amount between fiscal 2013 and 2014. Negative figures show an increase in environmental impacts beyond the benefits from reduction due to increased production, etc.

Approaches for Conservation of Biodiversity

Concept regarding conservation of biodiversity

The TOSHIBA TEC Group's biodiversity conservation efforts relate to all of our business activities, and include local communities, employees, suppliers and products. With this said, we carry out our biodiversity conservation activities via the four pillars of Products, Manufacturing Sites, Supply Chains and Contribution to Society.

Four pillars for conservation of biodiversity

Products	Manufacturing Sites	Supply Chains	Contribution to Society
Minimization of impact on biodiversity in product usage	Biodiversity conservation activities in sites and at home implemented by employees	Expansion of biodiversity conservation activities associated with supply chains	Participation in local biodiversity conservation activities and collaboration
Customers	Employees	Suppliers	Local governments/ neighborhood

Approaches for conservation of biodiversity in each country

TOSHIBA TEC EUROPE IMAGING SYSTEMS S.A.

Set up a bird sanctuary in the leveled ground of the site.



TOSHIBA AMERICA BUSINESS SOLUTIONS, INC.

Observed rare species of butterflies in the dedicated area of the site.



TOSHIBA TEC INFORMATION SYSTEMS (SHENZHEN) CO., LTD.

Observed the distribution of mangroves and gave assistance to their growth in cooperation with the city.



TOSHIBA TEC CORPORATION, Shizuoka Business Center

Continued to protect and breed "Mishima Saiko" (Bupleurum corzonerifolium) listed as an endangered species.



TOSHIBA TEC MALAYSIA MANUFACTURING SDN. BHD.

Protected green turtles from dangers and helped their hatchlings make them to the ocean.



Environmental Communication

Exhibitions

Toshiba Group Environmental Exhibition

- Date: August 28 to 29, 2014
- Location: TOSHIBA Building (Hamamatsucho, Tokyo)

We demonstrated omni-channel solutions with a focus on TCx-Gravity, and presented our contribution to the society through retail system innovation.

Our vertical image processing scanner also attracted visitors.



Eco-Products Exhibition 2014

- Date: December 11 to 13, 2014
- Location: Tokyo Big Sight

We gave a demonstration of Loops on the center stage and presented the vertical image processing scanner, which had received the Minister of the Environment Award. Both products gained the attention of visitors.



RETAIL TECH JAPAN 2014

- Date: March 3 to 6, 2015
- Location: Tokyo Big Sight

We mainly demonstrated Smart Receipt and highlighted cost reduction and environmental contribution effects by reducing receipt paper. We had an opportunity to introduce the future of retail and distribution business.



External commendation awards

Minister of the Environment Award for the Prevention of Global Warming

IS-910T Vertical Image Processing Scanner

The POS system with the use of the IS-910T vertical image processing scanner received the Minister of the Environment Award for the Prevention of Global Warming in the Technological Development and Commercialization Category as elimination of packaging materials and bar code labels from products was recognized.

It was the second time to receive this commendation, following the Loops Paper Reusing MFP System in 2011.

