

ENVIRONMENT

Based on recognition of the fact that it is our responsibility to maintain the health of the global environment as an irreplaceable asset for future generations, we, Toshiba Tec Group, contribute to the creation of new values and harmony with the Earth.



Vision & Strategies



Promotion of "Three Greens" and "Sustainability" based on "Environmental Vision 2050"



We, Toshiba Tec Group as a "global enterprise", are promoting activities based on Toshiba Group's Environmental Vision 2050 aimed at realizing a world where people can lead affluent lives in harmony with the Earth. Based on the following three Greens and Sustainability as a concept, we will focus on reducing the environmental impact in every product and proceed from the perspectives of mitigation of climate change, efficient use of resources and management of chemicals. We will also contribute to the realization of a low-carbon society, a recycle-oriented society and a society coexisting with nature.

Integration of business management and environmental management

Implementation of measures with 3 Greens and Sustainability	Green Management	Greening of Products	Greening of Process
	Continuous improvement of basic activities	Creation of products with the highest environmental performance	Environmentally conscious manufacturing
	Sustainability		
Contribution to the realization of a low-carbon society, a recycle-oriented society and a society coexisting with nature			

Environmental Promotion Structure



TOSHIBA TEC Group's Basic Policy for the Environment

We, 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 a sustainable 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, recycle oriented society and coexisting with nature society by seeking to bring together business and environmental activities, in order to hand down to our next generation, the health of the global environment as an irreplaceable asset.

Given Green Management, Greening of Products, Greening of Process and Sustainability as the important pillars of environmental management, 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. Green Management

- TOSHIBA TEC Group assesses the environmental impacts of its business activities, products and services on the environment, specifies and promotes objectives and targets with respect to the prevention of environmental pollution, use of sustainable resources, mitigation and response to climate change, and conservation of biodiversity.
- TOSHIBA TEC Group strives to continually improve environmental management through internal audits and reviews of activities.
- 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.
- TOSHIBA TEC Group provides environmental education, conducts educational campaigns, and expands each employee's environmental awareness to promote environmental activities.
- TOSHIBA TEC Group actively and widely discloses its environmental policy and activities inside and outside the Group.
- TOSHIBA TEC Group participates in society-wide environmental activities in cooperation with administrations, communities and bodies concerned.

2. Greening of Products

- 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.
- TOSHIBA TEC Group reduces environmental impacts throughout a life cycle through green procurement of environmentally conscious materials and parts, resource and energy conservation, and abolition of specified chemical substances, in order to provide environmentally conscious products on a global basis.
- 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.
- 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.

3. Greening of Process

- TOSHIBA TEC Group strives toward resource, energy and water conservation, as well as correct control of chemical substances, for environmentally conscious production, marketing and servicing, allowing for regional situation.
- TOSHIBA TEC Group aims at realizing a low-carbon society, recycle oriented society and coexisting with nature society through "Monozukuri" and by improving the efficiency of logistics operations.

4. Sustainability

- TOSHIBA TEC Group contributes to a sustainable society through its environmental activities, which include the development and provision of outstanding environmental conscious technologies and products in cooperation with society at large and with local communities, and maximizes disclosure and transparency in communication with stakeholders and society at large.

Environmental Audit

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. In fiscal 2017, three auditors were added to enhance the compliance system and develop human resources.



On-site audit

Sixth Environmental Action Plan

Based on world trends including SDGs and ESG investment as well as Toshiba Group's policy, we have been implementing the activities of the Sixth Environmental Action Plan since fiscal 2017. The targets are divided into four areas; "Greening of Products", "Greening of Process", "Green Management" and "Sustainability" set for fiscal 2020. In fiscal 2017, while all quantitative targets were achieved, qualitative targets were smoothly achieved. We will keep making efforts to achieve the targets by fiscal 2020.

Action area	Indicator		FY2017	FY2018	FY2019	FY2020	FY2017
			Target	Target	Target	Target	Result
Green Management	Environmental management	Environmental risk compliance / Environmental human resource development	Strengthen compliance systems at overseas/domestic sites by training environmental auditors and enhancing their performance.				Refer to page 26.
		External communication (Implementation of Global Environmental Action)	Set a theme of recommended activities for each fiscal year and expand the range of Global Environmental Action activities.				Refer to page 34.
	Biodiversity	Conservation of biodiversity	Expand the activities at all manufacturing sites for 10 of the Aichi Biodiversity Targets.				Refer to page 33.
Greening of Products	Overall	Creation of Excellent ECPs	To gain the certification against all models which aim at certification of Excellent ECP in each fiscal year (100%)				100%
	Mitigation of Climate Change	Reduce the amount of CO ₂ emissions. (thousand t) *1	147	147	155	157	172
		Expand the amount of saved resources saved. (thousand t) *2	22.0	23.4	24.7	24.2	23.9
	Efficient Use of Resources	Expand the amount of recycled resources (recycled plastic) used. (t) *3	562	577	602	623	589
		Management of Chemicals	Reduce the amount of specified chemicals.	Complete the reduction from products for EU before the start of restriction by eliminating specific phthalates.			
Greening of Process	Mitigation of Climate Change	Total amount of greenhouse gas (GHG) emissions (thousand t - CO ₂) *4	68.5	63.7	64.0	65.3	63.6
		Amount of CO ₂ emissions from energy use per unit consumption (t-CO ₂ /100 million yen)(compared to FY2013 levels) *4	47.29 (77%)	57.35 (93%)	56.66 (92%)	55.94 (91%)	44.6 (72%)
	Efficient Use of Resources	Amount of wastes needed payment to disposal including 0 cost (t) *5	1,480	1,267	1,268	1,276	1,239
		Amount of generated wastes per unit consumption (t/100 million yen)(compared to FY2013 levels)	2.97 (84%)	3.17 (90%)	3.11 (88%)	3.05 (86%)	2.48 (70%)
		Volume of received water per unit consumption (thousand m ³ /100 million yen)(compared to FY2013 levels)	0.52 (77%)	0.64 (94%)	0.63 (92%)	0.60 (89%)	0.45 (67%)
Management of Chemicals	Amount of released chemical substances per unit consumption (kg/100 million yen)(compared to FY2013 levels)	39.5 (70%)	45.8 (81%)	45.5 (80%)	44.9 (79%)	30.9 (54%)	
Sustainability	Creation of Sustainable Society	To contribute to the realization of a low-carbon society, a recycling-based society and a society coexisting with nature through our business activities and cooperative solidarity with regions and society	Continuously create Only One products and solutions, and demonstrate environmental contribution to the society and customers. Remarkable activities corresponding to the needs of each area and society are carried out to demonstrate environmental contribution to the society.				Refer to the following section.

*1: [CO₂ emissions of assumed substitute products] - [CO₂ emissions of shipped products] (Compares annual emissions during the usage stage and cumulates emissions for half the product life)

*2: [Mass of assumed substitute products] - [Mass of shipped products]

*3: [Amount of recycled plastics] / [Amount of plastics used for products] x 100

*4: Receiving end power is used for the power factor. 5.67 t-CO₂/10 thousand kWh is used in fiscal 2013 and 5.31 t-CO₂/10 kWh is used in fiscal 2017 and later in Japan. WRI/WBCSD GHG Protocol data in fiscal 2009 is used overseas.

*5: [Waste volumes] = [Total volume of waste generated] - [Total volume of waste sold]

Sustainability

With the aim of achieving a sustainable society in collaboration with business activities and local communities, we create and promote businesses that contribute to the three aspects of society; (1) a low-carbon society, (2) a recycle oriented society, and (3) a coexisting with nature society. In fiscal 2017, we provided products and services that contribute to a low-carbon society and a recycle-oriented society as described below.

(1) Paper Reusing System

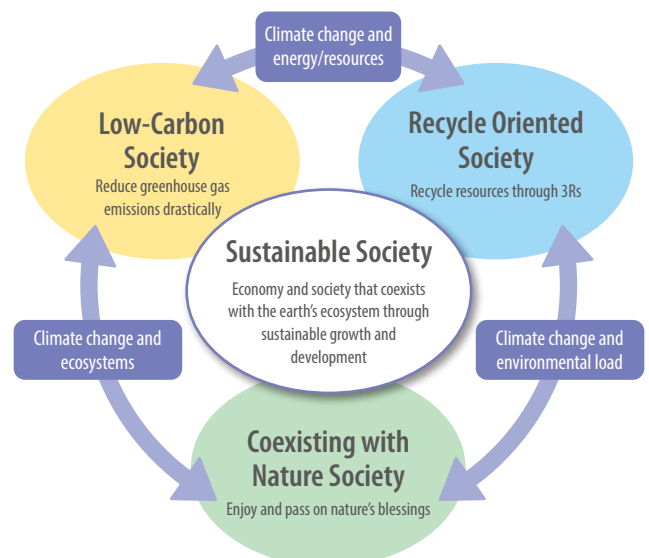
- The "Loops LP35/45/50" paper reusing hybrid MFP system generating regular and erasable prints was released in July 2017 as the only product of its kind in the world*.

(2) Smart Receipt (Electronic receipt)

- The electronic receipt system service for self-medication tax system was commenced in April 2017.
- Demonstration experiment of social infrastructure for Smart Receipt was started in January 2018.

(3) System using RFID (Electronic tag)

- "Model for reducing environmental burden and improving productivity in apparel supply chains, taking advantage of electronic tags" received the Special Awards of the Green Logistics Partnership Conference in December 2017.
- Demonstration experiment of information sharing in supply chains was conducted in February 2018.



Resource: 21st-Century Environment Nation Strategy approved by the Cabinet, June 1, 2007

* In the category of mass-produced MFPs that print on plain paper with electrophotographic technology as of May 1, 2017 (based on our internal research)

Greening of Products



We pursue the creation of products with the highest environmental performance and reduce environmental impact throughout the life cycle of all products developed.

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, we set "eco-targets" for the development of products with the highest environmental performance at the time of product release, in the stages from business strategy to product planning based on technological and competitor trends.

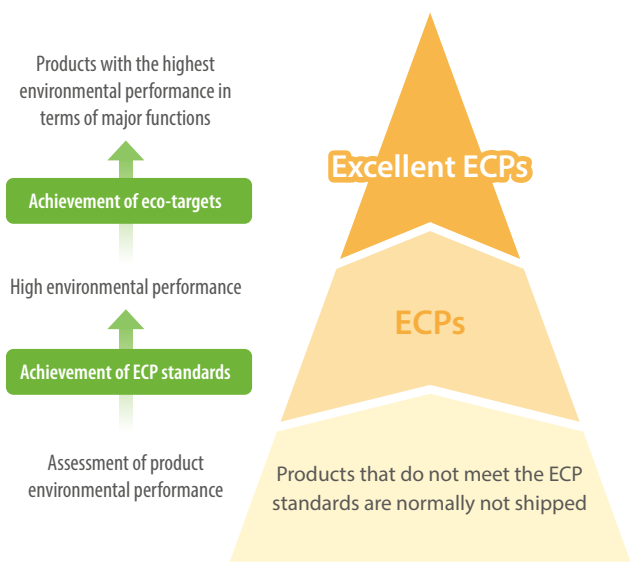
Then, in the development and design stages, we conduct environmental assessments to make sure that products comply with laws and regulations and meet the ECP standards*1 in all three aspects (mitigation of climate change, efficient use of resources and management of chemicals) in each stage of the life cycle.

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

There are concerns everywhere about the demand for social infrastructure products, increased consumption of electricity and resources. In order to reduce environmental impact, we aim at creating and further increasing the number of Excellent ECPs with the highest environmental performance in the industry.

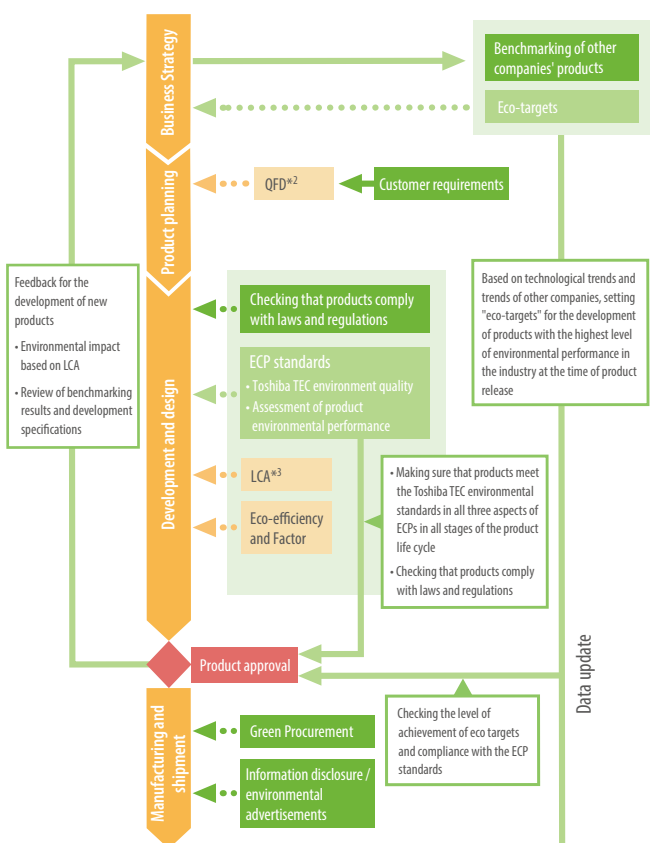
*1: Environmentally Conscious Products (ECPs) are designed to minimize environmental impact in all stages of the product life cycle, including procurement of materials, manufacturing, distribution, usage, disposal and recycling.

Basic Policy for the Greening of Products



Mitigation of Climate Change	Efficient Use of Resources	Management of Chemical Substances
<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"> • Reduction 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



Environmental label (third-party certification)	Disclosure of information on environmental performance	Excellent ECPs
Eco Mark, International ENERGY STAR® Program, Eco-Leaf, China Environmental Labeling Low-Carbon Product Certification, Blue Angel Label, etc.	Information on individual products regarding specific aspects of ECP designs	The highest level of environmental performance in the industry in terms of major functions

*2 QFD: Quality Function Deployment *3 LCA: Life Cycle Assessment

Main Products Certified as Excellent ECPs in Fiscal 2017

M-9000 Series POS System

Released in September 2017

Lowest standby power for applications*¹ through the use of power-saving parts and human sensors*²
 Reductions in size and weight by downsizing the control unit and changing the mounting position to the back of the display*²

Energy Saving

Standby power for applications*¹:
 Approx. 45% reduction*³

Resource Saving

Mass:
 Approx. 35% reduction*³



*1: Power in standby mode for registration of purchases
 *2: At the time of product launch; The current position is not guaranteed.
 *3: Comparison to the M-8000 system with a 15-inch display

"Loops LP35/45/50" Paper Reusing System

Released in July 2017

Integration of erasable print, non-erasable black and erasing functions
 Resource saving through the reuse of paper
 Industry's "only one product"

Resource Saving

CO₂ emissions:
 Approx. 50% reduction*⁴ through the reduction of paper consumption
 Installation area:
 Approx. 50% reduction*⁵ compared to the conventional model



*4: Resource: CO₂ (News Release issued by the Agency for Natural Resources and Energy), Paper (The 2011 edition of "Life cycle CO₂ emission of paper/cardboard" by the Japan Paper Association)
 *5: Comparison to the previous Loops LP301 System (Comparison between installation of 3 units of Loops LP301/RD301 with eSTUDIO357 and that of 1 unit of Loops LP35)

Environmental Label and Green Purchasing Law

We disclose information regarding many products compliant with the evaluation criteria of environmental labels and Green Purchasing Law.

Eco Mark

Eco Mark is a Japan's environmental labeling program launched by the Japan Environment Association in 1989. The Eco Mark is attached to products which have a lower environmental impact in the stages from production to disposal, and contribute to environmental protection. Our copiers and MFPs are certified as Eco Mark products.



Overseas environmental labels

Our copiers and MFPs are compliant with a variety of overseas environmental labels.



China Environmental Labeling



Taiwan Green Mark

Green Purchasing Law

The Green Purchasing Law was put into force in April 2001 and obliges national governmental bodies to formulate green procurement policies and to procure eco-friendly goods. In other words, the government takes the lead to promote the procurement of eco-friendly goods. We disclose information regarding copiers and MFPs compliant with the evaluation criteria of designated procurement items in brochures and websites (List of Products compliant with the Green Purchasing Law).

International ENERGY STAR® Program

The ENERGY STAR Program was launched in October 1995 as a voluntary registration system mutually acknowledged by the US and Japanese governments, and certifies office automation equipment that meets certain standards of energy conservation in standby mode as ENERGY STAR compliant. A variety of domestic and overseas copiers and MFPs are compliant with the ENERGY STAR Program. The International ENERGY STAR Program standards will be reviewed along with the advancement of energy-saving technologies for applicable products. Accordingly, we will proceed with product development in response to future revisions of the standards.



China Energy Conservation Label

This label is granted to products that comply with relevant quality and safety standards as well as achieve the highest energy efficiency in the world, compared to other products of the same category. After the Energy Conservation Law was enacted in 1998, the former State Economic and Trade Commission took the lead to establish the China Standard Certification Center (CSC), formerly the China Certification Center for Energy Conservation Products (CECP), which is the only certification organization for labeling energy efficiency products. Our copiers and MFPs for China are compliant with the standards.



Green Procurement

We implement green procurement in the procurement stage of raw materials. We also aim to procure articles with a lower environmental impact from suppliers that aggressively promote activities for environmental conservation. In addition, we have been working on reducing phthalates since 2015.

Suppliers' activities for environmental conservation

We prioritize suppliers who perform proactive activities for environmental conservation. We have prepared the Guidelines for Green Procurement in Japanese, English and Chinese to check the status of implementation of suppliers.

Activities for environmental conservation

1. Formulating environment policy
2. Establishing and maintaining a system for environmental conservation
3. Training and monitoring of system performance

Data utilization

We request our suppliers to provide data on environment-related substances control for articles to be supplied in the survey format based on our Guidelines for Green Procurement, to collect data on the green procurement support system. We use the data to develop ECPs.

Control of environment-related substances for articles to be procured

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 a lower environmental impact.

Control of environment-related substances

1. Make every supporting organization and suppliers understand the requirements.
2. Realize the requirements for control of environment-related substances.
3. Reply to our inquiries about control of environment-related substances.
4. Obtain necessary information from suppliers as base data for your reply.
5. Perform sample tests or obtain sample test results from suppliers if necessary.
6. Investigate suppliers' control systems.
7. Understand information on chemical substances whose inclusion will be prohibited.

Worldwide Collection and Recycling

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



Japan

We collect end-of-use products at our sales sites and perform process checks on recycling contractors to increase the collection and recycling rates.

Asia

At Toshiba Tec Malaysia Manufacturing Sdn Bhd. in Malaysia, we implement the voluntary collection and recycling program for end-of-use MFPs in collaboration with Shan Poornam Metals.

Europe

At Toshiba Tec France Imaging Systems S.A. in France, we implement the end-of-use toner cartridge collection and recycling program in collaboration with Conibi. The collected end-of-use toner cartridges are recycled into raw materials at ClozDloop® in Belgium.

Australia & North America

We implement the "Zero Waste to Landfill" recycling program in collaboration with Close the Loop®. Almost all of the end-of-use toner cartridges collected from copiers and MFPs through this program are recycled.

Greening of Process



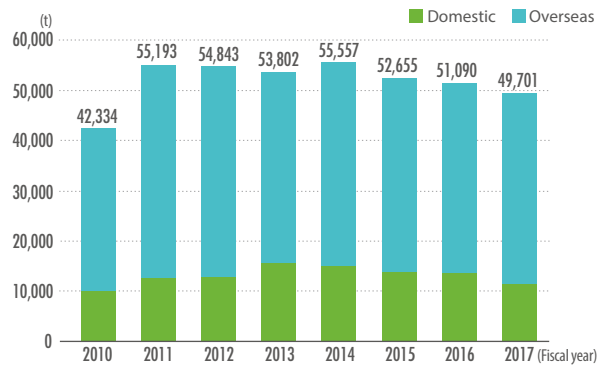
We are working on "Monozukuri" product manufacturing, which can minimize the input of energy, resources and chemical substances, as well as the output of CO₂, waste and chemical substance in our manufacturing processes worldwide.

Mitigation of Climate Change

Minimizing CO₂ emissions due to energy consumption

We effectively use energy to reduce CO₂ emissions. In fiscal 2011, CO₂ emissions increased 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 checking for compressor air leakage, we successfully reduced CO₂ emissions in fiscal 2017.

Transition of CO₂ emissions at manufacturing sites

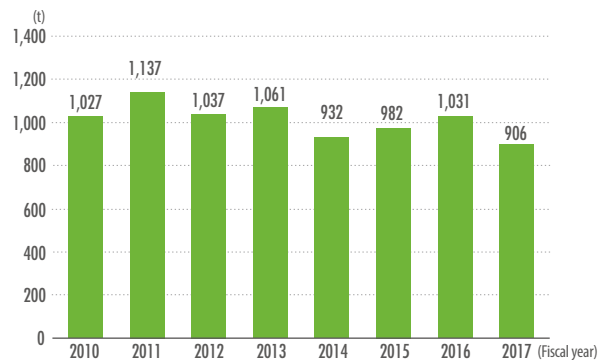


Note: Receiving end power is used for the CO₂ emission factor. 3.52 t-CO₂/10 thousand kWh is used in fiscal 2010, 4.75 t-CO₂/10 thousand kWh in fiscal 2011, 4.81 t-CO₂/10 thousand kWh in fiscal 2012, 5.67 t-CO₂/10 thousand kWh in fiscal 2013, 5.52 t-CO₂/10 thousand kWh in fiscal 2014, and 5.31 t-CO₂/10 thousand kWh in fiscal 2015 and later in Japan. GHG Protocol data in fiscal 2006 is used from fiscal 2010 to fiscal 2012, and the one in fiscal 2009 is used in fiscal 2013 and later overseas.

Minimizing CO₂ emissions associated with product logistics

We switched from individual shipping to full truckload shipping for imported parts to increase load efficiency, leading to a reduction in the number of trucks required. We also reduced the size and weight of new products that were developed to control CO₂ emissions resulting from product logistics. In fiscal 2017, one of the domestic companies left Toshiba Tec Group, resulting in a significant reduction of emissions.

Transition of CO₂ emissions associated with nationwide product transportation

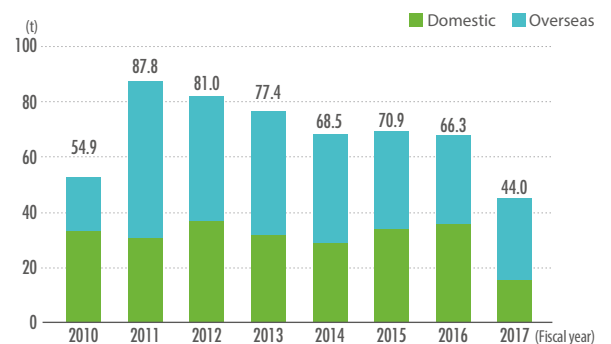


Management of Chemical Substances

Minimizing emissions of 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 have recently been able to reduce emissions as a result of introducing manufacturing equipment with low emissions of chemical substances and reviewing the process. In fiscal 2017, one of the domestic companies left Toshiba Tec Group, resulting in a significant reduction of emissions. We will continue to reduce emissions of chemical substances.

Transition of emissions of chemical substances

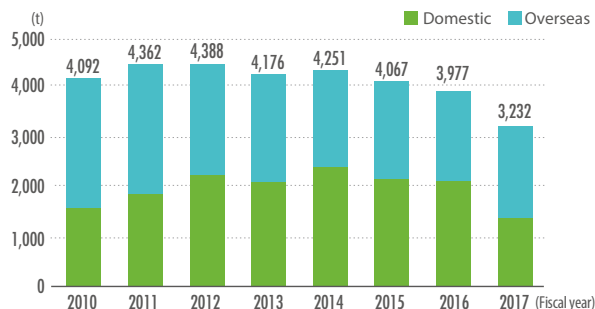


Efficient Use of Resources

Minimizing 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 fiscal 2017, one of the domestic companies left Toshiba Tec Group, resulting in a significant reduction of waste generated. We also visited the recycler's facility to directly check the status of processing in Japan. We will continue to effectively use resources in collaboration with the recycler through communication to increase the recycling rate.

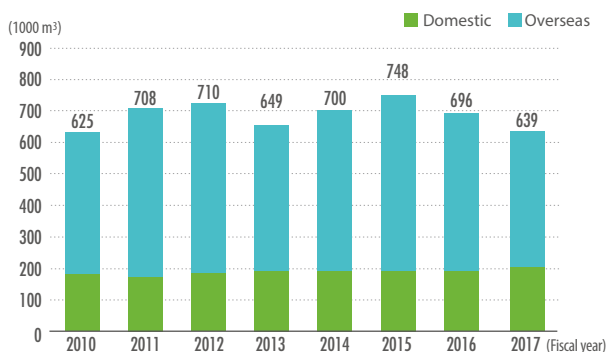
Transition of total volume of waste generated



Efficiently using water

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

Transition of amount of water received



Mitigation of Climate Change

Use of renewable energy

Toshiba Tec Europe Imaging Systems S.A.

We have been annually switching to LED lighting and adopting renewable energy at manufacturing and non-manufacturing sites worldwide. In fiscal 2017, the digital display board, which is powered by solar panels, is set up to show vehicle speed when driving on the premises.



Topics

Efficient Use of Resources

Recycling of cardboard boxes

Toshiba Tec Europe Imaging Systems S.A.

Cardboard boxes left over after delivered components are unpacked in the production line are repurposed for use as product shipping cushioning.



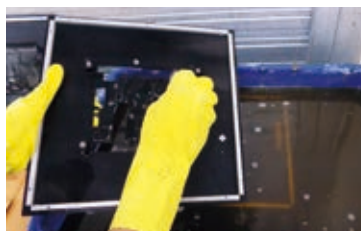
Topics

Management of Chemical Substances

Cleaning solvent substitution

P.T. TEC Indonesia

Isopropyl alcohol is used to clean manufacturing systems and equipment in the manufacturing process. We have been using alternative cleaning solvents with lower environmental impact at four group companies including P.T. TEC Indonesia.



Topics

Efficient Use of Resources

Use of rainwater

P.T. TEC Indonesia

Reduction in water consumption contributes to cost reduction and biodiversity. Because we are located in a high annual rainfall zone, we keep rainwater in a storage tank and use it for sprinkling and cleaning the floors outside.



Topics

Green Management



Approaches for Conservation of Biodiversity

Relationship between Aichi Biodiversity Targets and conservation of biodiversity

Biodiversity is the variety of all living things, and the systems which connect them. The Aichi Biodiversity Targets were adopted at the 10th Conference of the Parties to the Convention on Biological Diversity (COP10) held in Nagoya in 2010, and 20 targets were set for the international community that should achieve by 2020. We have decided to focus on 10 of these biodiversity targets, to which our business activities are closely related, based on the Toshiba Group's Policy. In the Sixth Environmental Action Plan, we promote biodiversity conservation activities for all 10 targets listed below at all manufacturing sites to be achieved by fiscal 2020.

Selected Aichi Biodiversity Targets			Specific action			Selected Aichi Biodiversity Targets			Specific action		
	Target 1	Awareness increased	Environmental education, internal and external information disclosure		Target 9	Invasive alien species prevented and controlled	Prevention of invasion throughout the product life cycle				
	Target 2	Biodiversity values integrated	Incorporation of targets into environmental policies and environmental action plans		Target 11	Protected areas increased and improved	Conservation activities in protected areas in and outside of Toshiba Tec Group sites				
	Target 4	Sustainable consumption and production	Suppression of climate change, efficient use of resources, and implementation of green procurement		Target 12	Extinction prevented	Protection of rare plant and animal species, internal and external conservation activities				
	Target 5	Habitat loss halved or reduced	Maintenance and building of ecosystem networks		Target 14	Ecosystems and essential services safeguarded	Maintenance and improvement of infrastructure, supply, adjustment and cultural services				
	Target 8	Pollution reduced	Reduction of emissions and correct management of chemical substances		Target 19	Knowledge improved, shared and applied	Activity information disclosure				

Achievements in Fiscal 2017

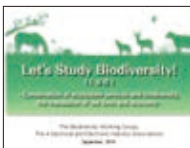
Here are the major activities we achieved in fiscal 2017.

Target 1 Awareness increased

▷ We implemented various training programs to raise awareness of employees.



Corporate-wide training by e-learning



Special training for environmental promoters



Awareness-raising video during lunch break at some sites

Target 2 Biodiversity values integrated

▷ We incorporated biodiversity in the environmental policies of all manufacturing sites along with the corporate-wide environmental policy.
▷ We developed mid-term plans for biodiversity at all manufacturing sites.

Target 12 Extinction prevented

▷ We continue activities, such as investigation of rare species and protection of endangered species, at each region.



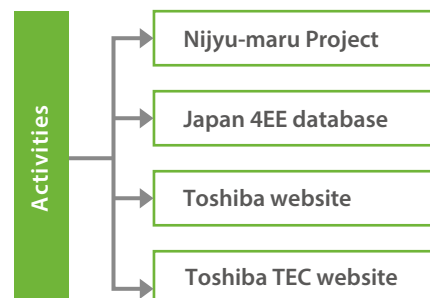
Toshiba America Business Solutions, Inc. Planting of native flowers in the plant premises to create an easily habitable environment for rare species



Toshiba Tec Information Systems (Shenzhen) Co., Ltd. Investigation and protection of rare species and endangered species around our plant

Target 19 Knowledge improved, shared and applied

▷ We disclosed information on the activities at manufacturing sites to external parties through the websites of the Nijyu-maru Project (Double 20 campaign - <http://bd20.jp/en/>) as well as Four Electrical and Electronic Industry Associations in Japan (Japan 4EE).



Global Environmental Action

We are committed to carrying out environmental contribution activities worldwide by incorporating the activity items of the Sixth Environmental Action Plan and choosing a recommended theme every year ("Energy" for 2017, "Water" for 2018, "Resources" for 2019, and "Chemical Substances" for 2020). In fiscal 2017, we carried out a total of 37 activities with a focus on "Energy" as the recommended theme.



Encouraging all employees for cooperation in energy conservation by email (Indonesia)



Clean-up around plants (Japan)



River clean-up (Singapore)



Collection of waste electronic devices (Singapore)

Information Disclosure and External Evaluation

Exhibitions

The 26th Toshiba Group Environment Exhibition was held in Kawasaki in February, 2018. We presented products with high environmental performance, such as Loops and M-9000, and emphasized environmental contributions. We also presented products at the TOSHIBA TEC Technology Exhibition, which was held in Osaka in November, 2017.



External evaluations and commendations

Our solutions to reduce CO₂ emissions in logistics by batch-based reading of electronic tags received the Special Award at the 16th Green Logistics Partnership Conference. We were ranked high ("A") in the Sompo Japan Green Open Fund's "Buna no Mori" Environmental Survey, and were selected as an investment brand (index component) in the ESG assessment of environmental, social and corporate governance issues.



Communication and Development of Environmental Awareness

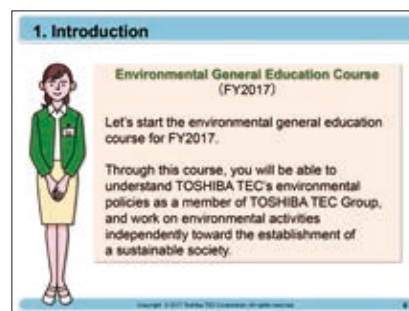
Environmental meetings

We regularly hold environmental meetings between manufacturing sites worldwide, discuss measures to reduce environmental impact and conserve biodiversity, along with environmental actions and awareness building, to develop implementation measures.



Environmental education

We annually implement e-learning training on environmental general knowledge and trends as well as the overall environmental management of Toshiba Tec Group for all employees.



Environmental Data Gallery



Environmental Accounting

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

Costs and benefits

For environmental conservation costs on a consolidated basis in fiscal 2017, total capital investments were 170 million yen and total expenses were 810 million yen. Total environmental benefits were 5.6 billion yen.

Target site: Toshiba Tec Head Office, Shizuoka Business Center, 2 domestic and 6 overseas manufacturing group companies
 Target period: April 1, 2017 to March 31, 2018
 Note: Some figures are estimated.

Environmental conservation costs

Millions of yen

Category	Description	Investments		Costs		Change in costs from FY2016	
		Consolidated	Non-consolidated	Consolidated	Non-consolidated	Consolidated	Non-consolidated
1) Business area costs	Reduction of environmental impact (1) to (3)	168.9	153.6	204.4	89.7	91.5	35.6
(1) Pollution prevention costs	Prevention of air, water and soil pollution, etc.	86.9	84.7	77.9	10.1	43.0	6.3
(2) Global environmental conservation costs	Global warming prevention, ozone layer protection, etc.	80.9	68.8	72.9	45.5	44.0	25.9
(3) Resource recycling costs	Recycling of waste, etc.	1.0	0.0	53.6	34.0	4.5	3.4
2) Upstream/downstream costs	Green procurement, collection and recycling of end-of-use products, etc.	0.0	0.0	126.3	126.3	20.9	20.9
3) Administration costs	Establishment of EMS, environmental education, tree planting/clean-up activities, etc.	3.5	0.0	315.3	302.4	4.9	8.2
4) R&D costs	Technical development for ECPs, etc.	0.0	0.0	156.7	156.7	17.2	17.2
5) Public relations costs	Donations and support to groups/organizations, etc.	0.0	0.0	4.3	3.1	-0.9	-1.0
6) Environmental damage restoration costs	Recovery from soil pollution, etc.	0.0	0.0	0.1	0.1	-0.6	-0.6
Total		172.4	153.6	807.1	678.3	133.0	80.3

Environmental conservation benefits

Millions of yen

Category	Description	Amounts	Calculation method
A Actual benefits	Reduced charges for electricity and water, etc.	157.5	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	1,166.8	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	4,271.2	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 [(electricity consumption per year of the former model - electricity consumption per year of the new model) x number of units sold per year x benchmark unit price of electricity charge]
Total		5,595.5	

A Actual benefits

Item	Reduction of environmental impact*	Benefits measured in monetary values (millions of yen)
Energy	-9,400 GJ	130.6
Waste	39.1 t	21.2
Water	-200 m ³	5.7
合計		157.5

* The reduction of environmental impact indicates the differences between fiscal 2016 and 2017. Negative figures show an increase in environmental impact beyond the benefits from reduction due to increased production, etc.

B Assumed benefits

Item	Reduction of environmental impact*	Benefits measured in monetary values (millions of yen)
Benefits from reduction of chemical emissions	17.4 t	1,166.8

C Customer benefits

Item	Reduction of environmental impact*	Benefits measured in monetary values (millions of yen)	
Benefits from reduction of environmental impact during product use	Electricity	45,540,000 kWh	1,047.4
	Paper rolls	5,467 t	3,223.8
Total		4,271.2	

Environmental Impact throughout the Life Cycle in Fiscal 2017

We reduce the environmental impact in our manufacturing processes and develop environmentally conscious products, to understand, analyze and reduce the impact at each stage of the product life cycle.

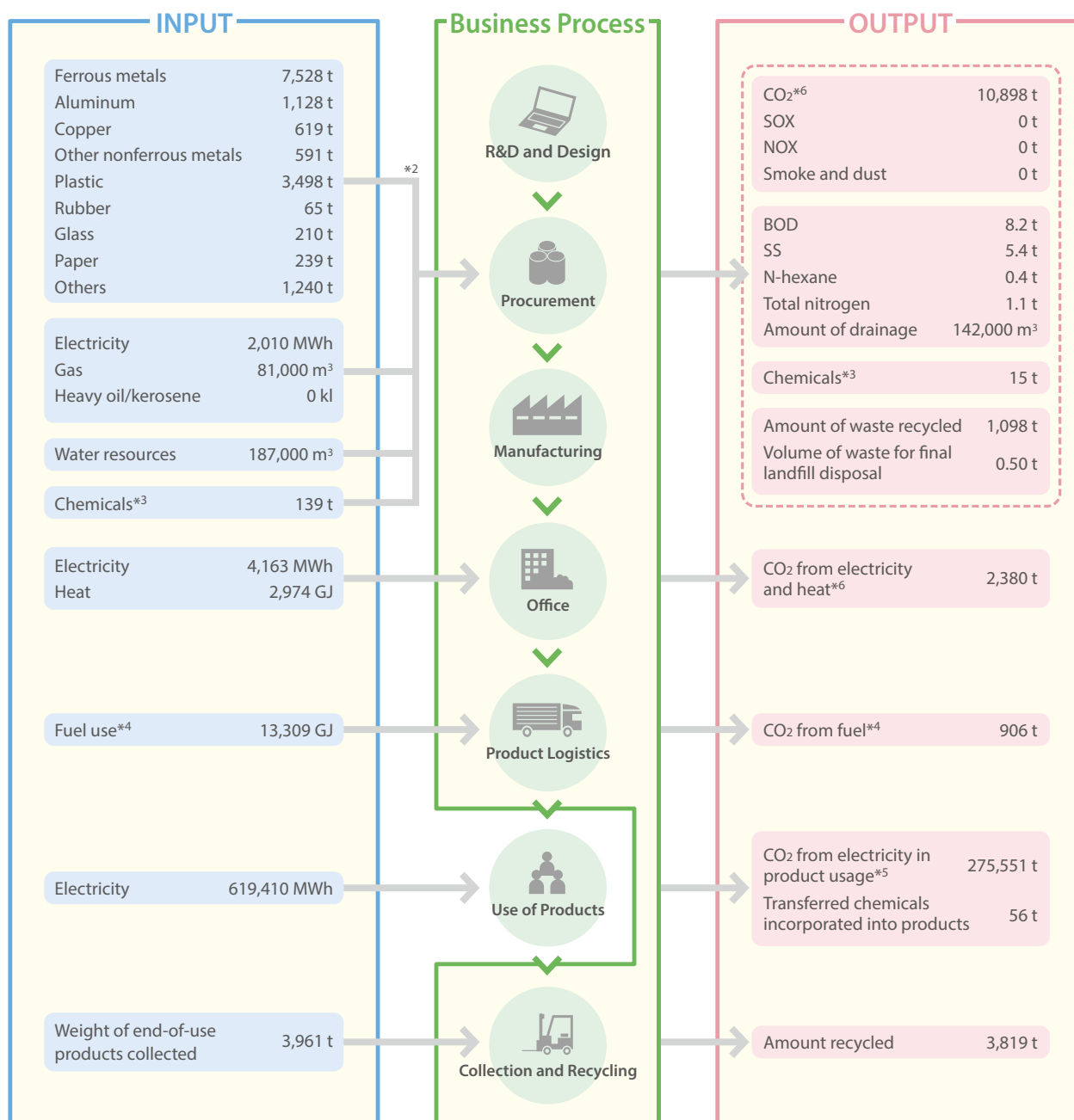
We procure raw materials and components from suppliers, manufacture and ship our products. We transport finished products to distributors or warehouses via outsourced forwarding agents. Then, we collect end-of-use products from customers wherever possible, for reuse and recycling.

At the manufacturing stage, CO₂ emissions due to consumption of all energies from plants were 10,898 tons and from offices were 2,380 tons.

Emissions of chemicals into the atmosphere and water were 15 tons. The amount of waste recycled was 1,098 tons and the amount of landfilled was 0.5 tons. CO₂ emissions from major products shipped in fiscal 2017 until the end of their lives are to be approximately 275,551 tons.

We are working on reducing power consumption and CO₂ emissions, which are the majority throughout the life cycle, as a top priority issue.

Environmental impact in fiscal 2017*1



*1: Target data tabulated: Toshiba Tec

*2: Inputs of materials and parts are calculated from material procurement data using the Toshiba Group's proprietary method.

*3: Target chemicals: 551 types specified by Toshiba

*4: Product logistics: All CO₂ emissions for outsourcing

*5: CO₂ in product usage is CO₂ emissions from major products shipped in fiscal 2017 until the end of their product lives.

*6: 5.31 t-CO₂/10 thousand kWh is used for the CO₂ emission factor.