TOSHIBA

Toshiba Electronic Devices & Storage Corporation

Environmental Report 2020

Contents

Editorial policy

The Environmental Report 2020 of Toshiba Electronic Devices & Storage Corporation Group presents the results of Toshiba Electronic Devices & Storage Corporation Group’s environmental management activities in fiscal 2019.

The object of this report is to present our statement of environmental philosophy, system, achievements and activity plan about reduction of environmental impact of products and in manufacturing, and environmental communication.

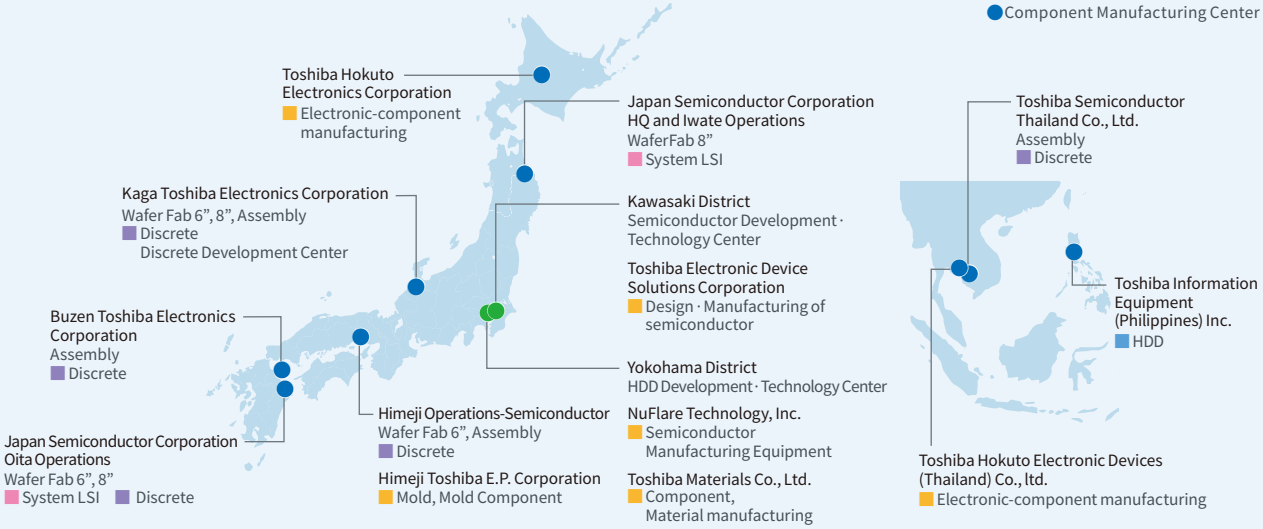
This report has been compiled by referring to ”Environmental Reporting Guidelines 2018" by Ministry of Environment, Japan.

Toshiba Electronic Devices & Storage Corporation Overview

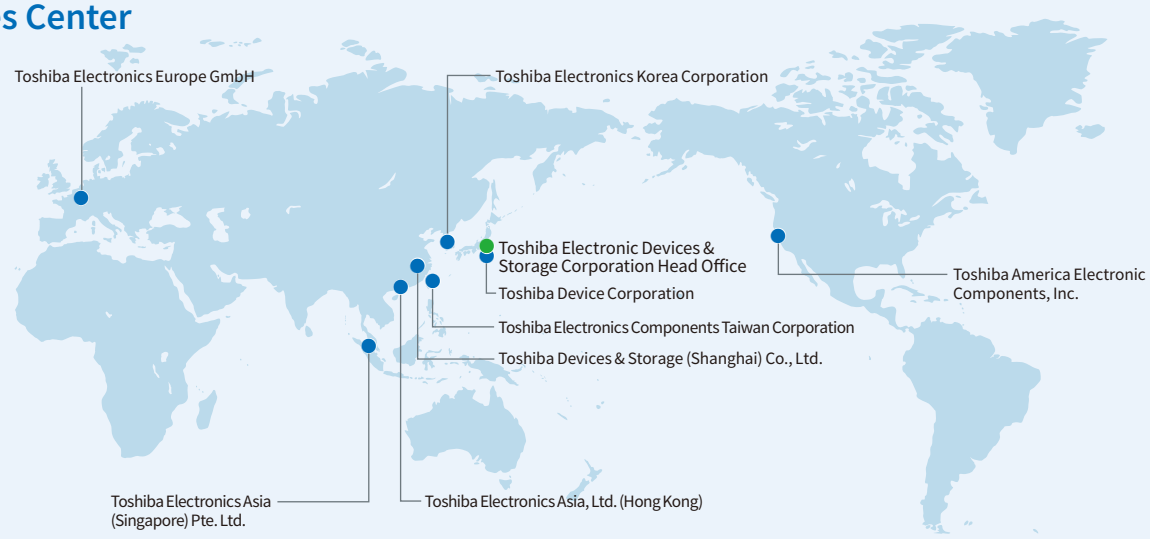
Toshiba Electronic Devices & Storage Corporation gained independence from a corporate internal company at Toshiba Corporation in July, 2017, and started as a separate entity.
Toshiba Electronic Devices & Storage Corporation Group of companies are engaged in a wide range of parts and components business operations which includes conventional semiconductor business and storage products business, as well as semiconductor manufacturing device business that is handled by NuFlare Technology, Inc.; and from April 2019 along with parts, components and materials business handled by Toshiba Hokuto Electronics Corporation and Toshiba Materials Co., Ltd.
Experience and knowledge from each respective business area are brought together, in an aim of creating high value added products.

Development • Technology • Manufacturing Center

(July 2020)
Development Center
Component Manufacturing Center



Sales Center



Number of employees

24,200 (Fiscal 2019)

19% of all Toshiba Group

Consolidated sales

745,600 million yen (Fiscal 2019)

22% of all Toshiba Group

Toshiba Electronic Devices & Storage Corporation Group
All Toshiba Group except Toshiba Electronic Devices & Storage Corporation Group

Top Management Commitment

Foreword

In recent years, environmental social issues such as climate change, marine pollution, and the declining population of wildlife species have become more serious, and with COVID-19, which has continued unabated this year, people's lives and economic activities are also required to undergo all kinds of changes and restrictions, which is impacting on the global environment in a number of different ways. Meanwhile, this year shall be the year in which the Paris Agreement will begin being implemented, with action toward decarbonization and various initiatives toward the achievement of the 'Sustainable Development Goals (SDGs)' adopted in September 2015 expected to gather speed. We companies need to pursue these initiatives through our business activities. Under these circumstances, the Toshiba Group, which is currently working toward achieving its long-term goal of 'Environmental Vision 2050' that sets out a vision for 2050, is promoting 'The 6th Environmental Action Plan', which spans from FY2017 to FY2020. The Toshiba Group aims to acquire SBT certification by the end of FY2020 and plans to increase its energy-saving measures and product creation from FY2021 onward. Thus, the Group has a large role to play and a huge responsibility. We will continue to engage in environmental activities by earmarking them as one of our most important management issues.

We Will Contribute to Solving Social Issues and Improve Our Corporate Value through Our Businesses.

The Group will carry out environmental management activities based on both its responsibility for the impact its business activities have on society and the environment (CSR environmental management) and its contribution to solving social issues (CSV environmental management). First and foremost, as CSR environmental management, we will promote reducing our environmental impact during the product manufacturing stage. The Group, which is engaged in manufacturing across the globe, will reduce its burden on the environment during each manufacturing stage by actively investing in the introduction of highly efficient manufacturing equipment, as well as promoting various energy-saving measures, especially to mitigate climate change. In addition, we will contribute to forming an environmentally sustainable society through minimizing the use of new resources and by way of 3R efforts, and will work to reduce environmental risks by managing the amount of chemical substances used as well as cutting down on the volumes we handle and the amount of emissions we produce. Meanwhile, as CSV environmental management, we will continue to provide products and services that contribute to the development of people's lives and industries, such as with the approaching shift to IoT and greater energy saving of industrial equipment, progress of the electrification of automobiles, popularizing of eco-friendly vehicles, and the explosive increase in the amount of information. In addition, we will comply with laws and regulations related to products, work closely with our suppliers through green procurement, and at the same time, work to become a "driving force to change the world" with our technology and thoughts as a pioneer in responding to social issues.

We Will Strive to Build Trust with Our Stakeholders

As a business providing products and developing manufacturing around the globe, the Group is strongly aware of the social responsibilities it must take on, and it will work to build trust among its stakeholders by complying with laws and regulations, developing human resources, and contributing to the local community and society. At each base, we hold environmental report meetings where we invite local citizens, neighboring companies, universities, government officials, etc., and hold semiconductor environmental classes outside for elementary school students for them to understand the social contribution of the products we create so to help increase the Toshiba fanbase and have them deepen their understanding of our environmental activities. We are also actively promoting biodiversity conservation activities such as forest conservation and development activities that utilize regional characteristics, as well as activities to protect rare animals and plants. We are also working to maintain and improve the environmental awareness and competence of our employees by providing various education, including environmental education for all Group employees, separate education for specific employees involved in work with significant environmental aspects, and auditor training and education to enhance our self-management system.

We will continue to proactively publish information about our environmental management activities engaged through our businesses to our stakeholders. To be a "driving force to change the world," going forward, we would greatly appreciate your continued understanding and support with regard to the Group's business and environmental management activities.

Toshiba Group The Sixth Environmental Action Plan

In order to realize an ideal state of the Earth in 2050 envisaged by Environmental Vision 2050, the Toshiba Group has formulated their medium-term goals on the environment as the “Sixth Environmental Action Plan” (Activity Period: FY 2017 to FY 2020), and is currently implementing its activities. In formulating this, various factors were taken into consideration, including external factors such as the adoption of the Paris Agreement at COP 21, adoption of SDGs at the UN summit, and the start of operation of the ESG investment, as well as internal factors such as changes in the company’s business structure, and the successes and points for reflection from the Fifth Environmental Action Plan (Activity Period: FY 2012 to FY 2016). Activities the Toshiba Group should be focused on for the coming four years were considered next.
Regarding the contents, we set a total of 15 items with goals over the two areas of “Business (products /services and manufacturing)” and “Management”.
The “Environmental Action Plan” is reviewed every few years and contributes to resolving global environmental issues in an effective manner.

Areas of focus under the Sixth Environmental Action Plan

Business (Improvement of environmental performance for products and services):

We will develop energy-saving products for realizing a low-carbon society through suppression of CO_2 emissions, both at the time of manufacturing of products, and during their use, through resource savings, such as in the miniaturization of products, and through reductions in specified chemical substances contained within the products.

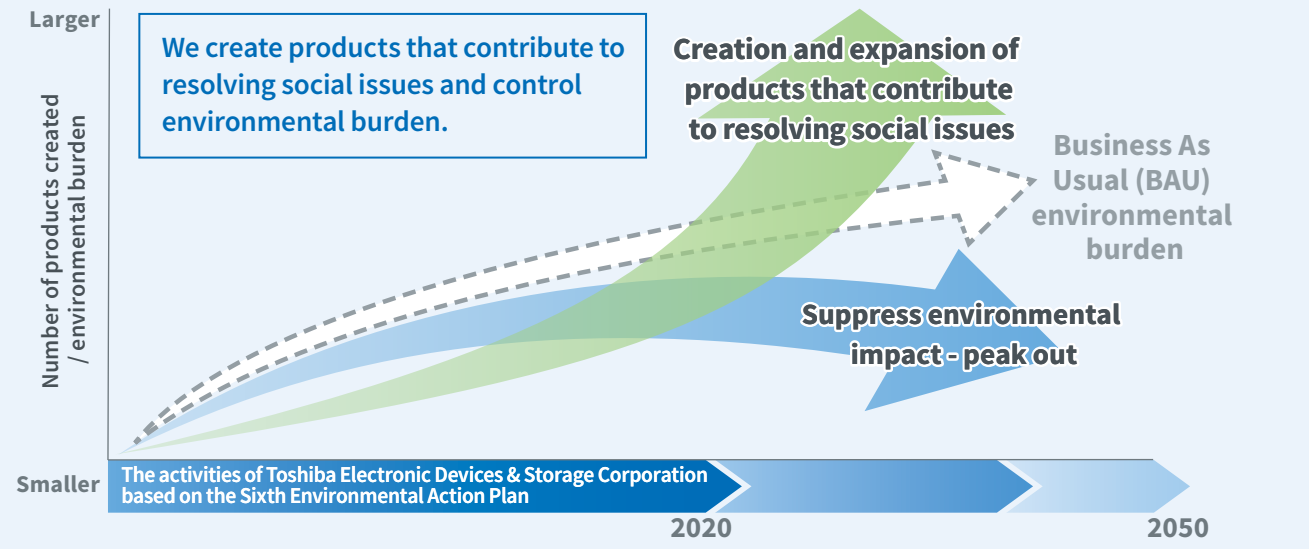
Business (Reduction of environmental impact in manufacturing):

We will seek to achieve highly efficient manufacturing that curbs greenhouse gas emissions, chemical substances emissions, waste production, and water usage at each manufacturing base and simultaneously reduces environmental burdens and costs. And management of greenhouse gas emissions and waste production will continue, both in terms of “primary units” and “total amounts”.

Management:

In an effort to improve compliance with laws and regulations throughout Toshiba Group, we established “Thoroughness in environmental risk and compliance” as a new item. We will strive to strengthen compliance with global environmental laws and regulations, foster environmental human resource development, and aim to create a system that can constantly monitor risks.

Image of environmental contribution activities aimed for by Toshiba Device and Storage Corporation Group based on Toshiba Group’s Sixth Environmental Action Plan.



Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)

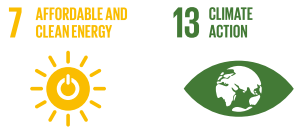
The table below shows targets and actual results for environmental performance based on Toshiba Group's Sixth Environmental Action Plan. 11 out of 15 items in total were established as our corporate goals.

*The results for FY2017-18 do not include results from Toshiba Materials Co., Ltd. and Toshiba Hokuto Electronics Corporation.

1 Increasing the creation of products that contribute to resolving social issues (p.09)

FY2017	FY2018	FY2019			FY2020
Result	Result	Target	Result	Evaluation	Target
Managed by different index	3 Products	3 Products	5 Products	○	5 Products

Initiatives and contribution to SDGs



We develop and provide products that consume less electricity when they are used and are smaller and lighter, and achieve energy saving and greenhouse gas reduction in the end products of customers who use these products. At the same time, through environmental reports, we actively promote these products as products that contribute to solving social issues.

2 Reduce energy-originated CO_2 emissions (p.14)

FY2017	FY2018	FY2019			FY2020
Result	Result	Target	Result	Evaluation	Target
641kt-CO_2	634kt-CO_2	752kt-CO_2	661kt-CO_2	○	716kt-CO_2

Initiatives and contribution to SDGs

We will continue measures such as reducing electricity consumption by optimizing air conditioning for clean rooms and reducing city gas usage by increasing the collection and utilizing of waste heat. Through this, we have saved energy and reduced greenhouse gases.

3 Reduce PFC emissions (p.14)

FY2017	FY2018	FY2019			FY2020
Result	Result	Target	Result	Evaluation	Target
138kt-CO_2	129kt-CO_2	152kt-CO_2	113kt-CO_2	○	128kt-CO_2

Initiatives and contribution to SDGs

We will continue emission reduction measures such as collecting and reusing PFC and introducing emission removal equipment to new facilities. By cutting down on PFC, which affects climate change about 10,000 times more than CO_2, we have achieved a reduction in greenhouse gases.

Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)

4 Reduce water usage (p.15)

FY2017	FY2018	FY2019			FY2020
Result	Result	Target	Result	Evaluation	Target
14,029k(㎥)	14,023k(㎥)	17,069k(㎥)	14,559k(㎥)	○	15,944k(㎥)

Initiatives and contribution to SDGs

We have made water resources sustainable by continuing measures such as reducing the amount of industrial water used by optimizing how pure water production equipment is operated, using well water, reusing and recycling water. In addition, to ensure the availability of sanitary water and to conserve the ocean and marine resources, the water resources we use are made cleaner than they were when they were received before being discharged.

5 Reduce overall waste generation (p.16) / 6 Reduce waste volume (p.16)

Activity content	FY2017	FY2018	FY2019			FY2020
	Result	Result	Target	Result	Evaluation	Target
Reduce overall waste generation	16.6kt	16.1kt	21.8kt	18.9kt	○	20.6kt
Reduce waste volume	10.3kt	10.1kt	12.7kt	10.8kt	○	12.2kt

Initiatives and contribution to SDGs

【Overall waste generation】

We will continue measures such as minimizing the consumption of resources such as metals and resins by improving our production process, reducing the amount of sludge generated by optimizing the amount of chemicals used, and promoting the recycling of waste.

【Waste volume】

(The waste volume is remaining after valuable materials are subtracted from overall waste generation.) We will continue measures to promote the conversion of metal materials and other valuable resources. This will ensure a sustainable form of production and consumption.

7 Reduce chemical substance discharge (p.17)

FY2017	FY2018	FY2019			FY2020
Result	Result	Target	Result	Evaluation	Target
222t	229t	271t	251t	○	240t

Initiatives and contribution to SDGs

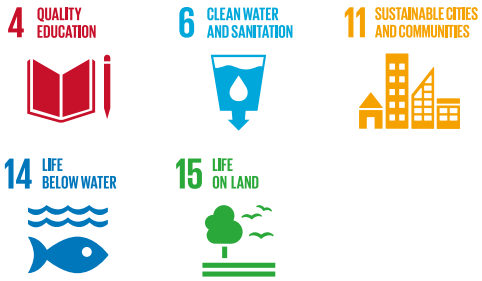
We will continue measures to 'make reductions during use' such as by optimizing the amount of chemical substances used and improving the manufacturing process, as well as measures to 'make reductions during emission' such as by reuse, recovery, and proper treatment of chemical substances, detoxification through exhaust gas treatment and wastewater treatment, and removal by coagulation and sedimentation. This reduces the risks to people's health and the environment associated with chemical emissions.

Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)

8 Promote biodiversity activity (p.20)

FY2017	FY2018	FY2019			FY2020
Result	Result	Target	Result	Evaluation	Target
7 Site implementation	11 Site implementation	Contribution to Aichi target 11 Site promotion	Contribution to Aichi target 11 Site promotion	○	Contribution to Aichi target 11 Site promotion

Initiatives and contribution to SDGs



We will continue activities such as protecting rare animals and plants, developing a biotope within plant premises, forestation work, activities to beckon fireflies back to rivers, and restoring abandoned rice terraces. Through these activities, we aim to protect and restore the ecosystem and ensure a more thorough understanding of the significance of our biodiversity conservation activities among neighboring residents and school children.

9 Promote social communications / 10 Promote local communications (p.18)

Activity content	FY2017	FY2018	FY2019			FY2020
	Result	Result	Target	Result	Evaluation	Target
Promote social communications	PR, advertisements, exhibition promotion	PR, advertisements, exhibition promotion	Promote with PR and advertisements	Promote with PR and advertisements	○	Promote with PR and advertisements
Promote local communications	Implement site communications	Implement site communications	Implement site communications	Implement site communications	○	Implement site communications

Initiatives and contribution to SDGs

We will actively disclose information about our environmental activities to our stakeholders through all kinds of media such as by way of environmental reports and environment-related websites, etc. In addition, at each plant, we aim for a symbiosis between the plant and the area by promoting communication with the local community such as by way of dialogue and interaction with residents and education.

11 環境意識の向上 (p.22)

FY2017	FY2018	FY2019			FY2020
Result	Result	Target	Result	Evaluation	Target
Implement awareness improvement measures	Implement awareness improvement measures	Awareness improvement measures	Implement awareness improvement measures	○	Awareness improvement measures

Initiatives and contribution to SDGs

We are working to foster an environment-orientated mindset among our employees by implementing various types of education such as environmental education for all employees, auditor education, and education on laws and regulations for sales staff, as well as sharing information on our environmental activities through in-house public relations.

Value Chain Management

Through dialogue with stakeholders, we appropriately identify important environmental issues during the stages of procurement, development, manufacturing, distribution, and use, and build an effective system to prevent and respond to these issues (see the table below).
In addition, in the event a customer requests information on compliance with the Green Procurement policies and the status of compliance, we will explain our compliance policy and the compliance status (see page 12).

Stakeholder	Stage	Responding to Environmental Issues
Suppliers	Procurement	Compliance with Green Procurement Guidelines (p.12)
		Compliance with domestic and overseas environmental laws and regulations (p.12)
Our Group	Development	Verification of chemical substance contents (p.11)
		Miniaturization and weight reduction of products (p.11)
		Lower power consumption design (p.11)
		Reduce number of processes (p.11)
	manufacturing	Reduce greenhouse gas emissions (p.14)
		Reduce water usage (p.15)
		Reduce waste generation (p.16)
		Reduction of chemical substance use, emissions, and waste (p.17)
		Preventing emissions of substances harmful to the atmosphere and rivers (p.22)
	Logistics	Reduce greenhouse gas emissions (Measures such as delivery route optimization)
Customers	Usage	Miniaturization and weight reduction of products (p.11)
		Lower power consumption in use (p.11)

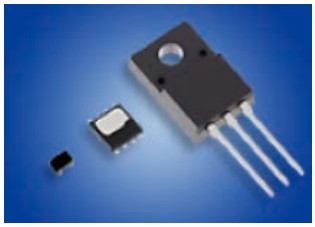
Products that contribute to resolving social issues

Visconti™ Series Image Recognition Processors

3 GOOD HEALTH AND WELL-BEING
7 AFFORDABLE AND CLEAN ENERGY
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION

Product outline	This is an image recognition processor for on-board vehicle applications that achieves both high performance and energy saving.
Useful points	Images captured by a camera is instantaneously identified and the driver is notified of any danger.
Contribution to the environment	It contributes to energy saving and preventing climate change with its multi-core and exclusive image processing circuits.

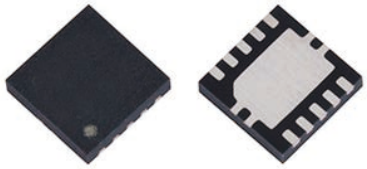
U-MOSIX Series Power Semiconductors



7 AFFORDABLE AND CLEAN ENERGY
13 CLIMATE ACTION

Product outline	It adopts a process that reduces loss.
Useful points	It suppresses heat generation and also enables the downsizing of on-board devices.
Contribution to the environment	It contributes to the prevention of climate change by saving energy.

eFuse IC TCKE8xx Series



7 AFFORDABLE AND CLEAN ENERGY
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Product outline	It is an electronic fuse that can be used repeatedly.
Useful points	It instantly turns off the power to protect the device.
Contribution to the environment	No replacement is needed and no waste is produced.

NL HDD filled with helium

4 QUALITY EDUCATION
7 AFFORDABLE AND CLEAN ENERGY
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
13 CLIMATE ACTION

Product outline	An HDD filled with helium, which has smaller molecules than that of air.
Useful points	It is used for servers and so on and supports society's information infrastructure.
Contribution to the environment	By filling with helium, the rotation resistance is reduced, saving energy and increasing the capacity.

Arm® Cortex®-M4-based Microcontrollers

7 AFFORDABLE AND CLEAN ENERGY 13 CLIMATE ACTION

Product outline	Boasting an ample lineup, this high-performance microcontroller is equipped with high-speed data processing and a wealth of functions.
Useful points	It enables the control of large-scale systems such as OA and AV equipment.
Contribution to the environment	It achieves both low power consumption and high functionality, offers energy saving for on-board equipment, and contributes to the prevention of climate change.

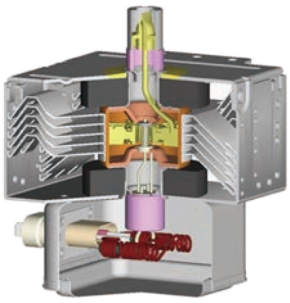
*Arm and Cortex are registered trademarks of Arm Limited (or its subsidiaries) in the United States and/or other countries.

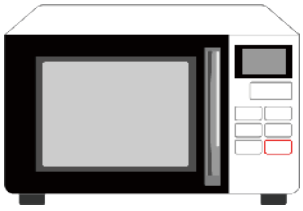
Silicon Nitride Ceramic Bearing Balls

7 AFFORDABLE AND CLEAN ENERGY 13 CLIMATE ACTION

Product outline	These are ball bearings that use silicon nitride ceramics instead of steel.
Useful points	The product is an insulator and free of corrosion or rust, making it suitable for applications in harsh environments.
Contribution to the environment	They have excellent wear resistance, a long service life, and are half the weight of an iron ball bearing, which sees them contribute to saving energy and resources.

Magnetrons

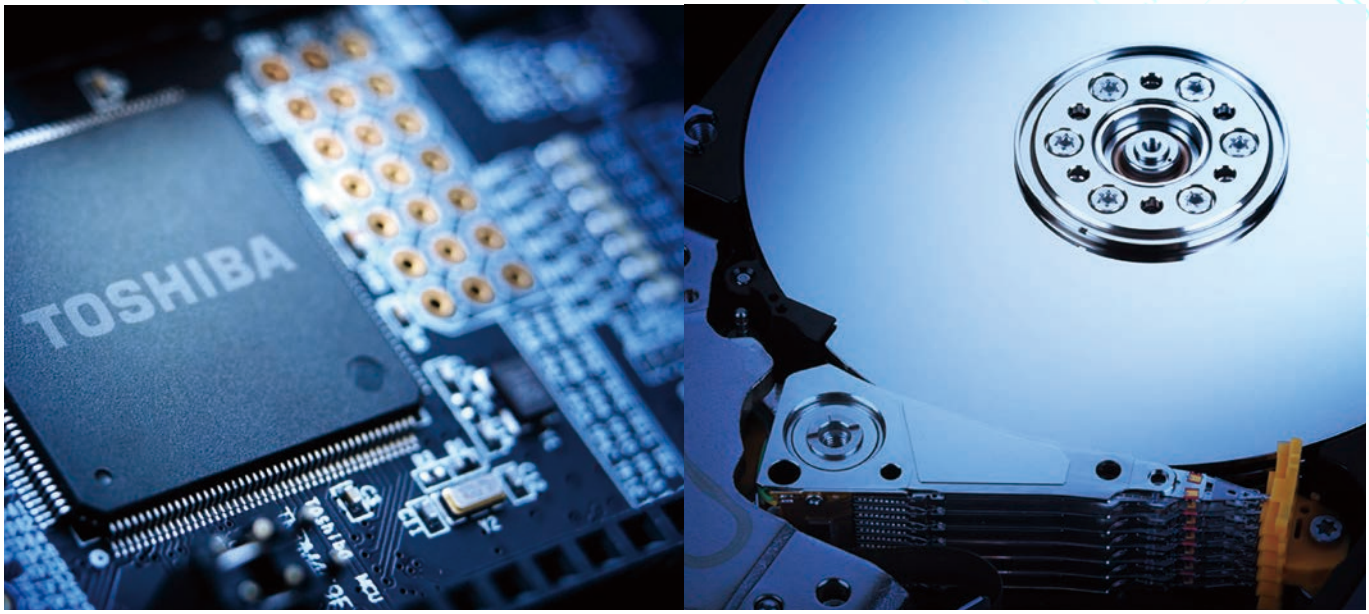




7 AFFORDABLE AND CLEAN ENERGY

Product outline	Microwave oven is essential to our daily lives. Microwaves are generated with a magnetron*, heating by vibrating molecules in the food. (* : A type of vacuum tube)
Useful points	We were the first in the world to commercialize a tube that boasts a long service life, high-efficiency, and low-noise.
Contribution to the environment	Contributes to energy saving and prevention of climate change by efficiently generating microwaves.

Reduction of Environmental Impact of Products



Environmental consideration at the stages of product design and engineering

The Group is working on energy savings, and the control of chemical substances in products, through the design and development stages, and through the material procurement stages, creating products that are environmentally friendly.

Verification of chemical substance contents:

Conditions of chemical substances included in raw materials and parts used in our products are verified and materials are selected to avoid restricted substances, while development of technologies, product design and development that have small environmental impact are promoted. Compliance with laws, ordinances and various regulations relevant to products is verified by conducting environmental assessments.

Miniaturization and weight reduction of products:

Product packages are miniaturized and weight is reduced to decrease the amount of raw materials used to miniaturize various electrical devices in which our products are incorporated, as well as resource conservation.

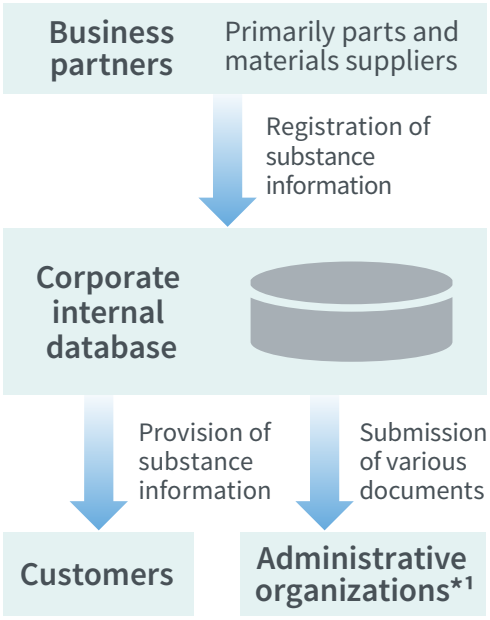
Lower power consumption design:

Low power consumption designs are realized by reducing power loss with lowered ON resistance of power semiconductors and power consumption is reduced while products are used. Furthermore, development of devices that far exceed performance limits of conventional silicon devices are being advanced with the use of compound semiconductors such as SiC (silicon carbide) and GaN (gallium nitride).

Reducing number of processes:

Highly efficient mass production system, which starts at design and development stage, is being built. Power consumption is reduced by decreasing the number of processes for manufacturing.

Material procurement with consideration for the environment



*1: European Chemicals Agency, etc.

Toshiba Electronic Devices & Storage Corporation Group has established green procurement guidelines and is developing green procurement activities with consideration to the environment.
In addition to explaining the contents of said guidelines to all business partners, we ask suppliers to submit "Questionnaires on the establishment of the Environment and Product Quality Management System", and conform Establishment of Environmental Quality System, Establishment of the Management System with Preparation of Rules and Standards and Establishment of the Process Management System when starting the business with business partners.
At the same time, we collect information on chemical substances contained in products from the suppliers, including the content of "Procurement-Prohibited Substances" and "Procurement-Controlled Substances" as specified by the Company, and check the compliance status according to said guidelines. And as shown in the figure on the left, information on substances is registered and stored in our in-house database.
Briefing sessions are held on a continual basis, to promote understanding about our green procurement activities, and business partners are requested to cooperate with our efforts.

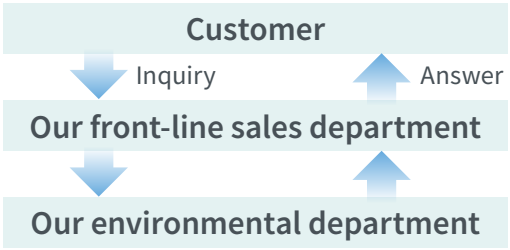
Compliance with domestic and overseas environmental laws and regulations

Regulations for chemical substances related to products are enforced or scheduled to be enacted in all countries around the world.
Amongst recent developments relating to substances subject to the EU RoHS Directive, in addition to the six substances currently regulated (Pb, Hg, Cd, Cr 6+, PBB, PBDE), four phthalate esters (DEHP, BBP, DBP, DIBP) were added (July 22, 2019). In response to such developments, the company has already completed substitution for the four phthalate esters.
The corporate group will continue to gather information on the latest domestic and overseas trends of policies and regulations concerning chemical substances contained in products, promote alternatives for chemical substances that may become subject to various regulatory restrictions and review our established "procurement prohibited substances" and "procurement controlled substances" to reflect our Green Procurement Guidelines.

Toshiba Electronic Devices and Storage Corporation Group regulations relating to management of chemical substances in products.

- Domestic regulations, etc.: Chemical Substances Control Law, PRTR Law, etc.
- Overseas regulations, etc.: RoHS related regulations for each country, WEEE Directive, European ELV Directive, REACH Regulation, ErP Directive, etc.
- Others : Customer requests, etc.

Responding to Customer Inquiries



We are always ready to respond to inquiries like those below from customers on the environmental quality of our products.

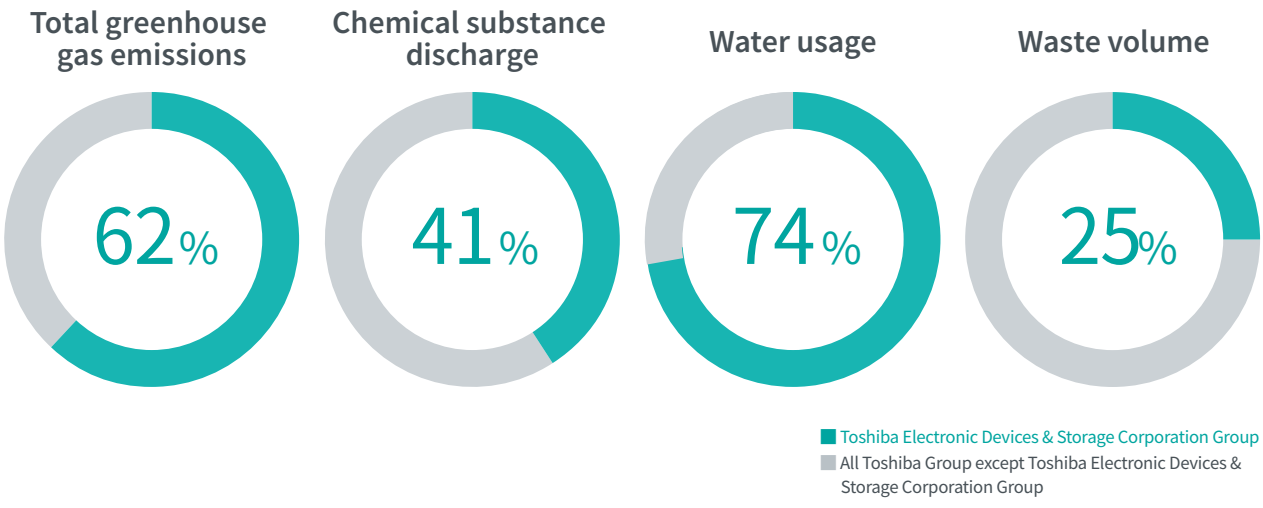
1. Content of chemical substances related to delivered products
2. Management system of chemical substances in products
3. Other inquires about product environmental quality

Reduction of Environmental Impact in Manufacturing

The Group is aiming for “high-efficiency manufacturing”, that simultaneously reduces the environmental burden, and the manufacturing costs generated in the production process. In step with progress towards an information-oriented society, we continue to expand and strengthen production capacity for our semiconductor and HDD products in order to meet vigorous demand in the market. Our parts and materials business supply high precision components for a broad range of fields such as industrial medicine and as a result, our environmental burden is expected to increase for the time being. However, by promoting various measures throughout the organization, such as introducing highly energy-efficient facilities, making process improvements, and reviewing the design of product parts, we will work to suppress any environmental burden imposed by the Company.
And our group comprise a large portion of the environmental burden produced by Toshiba Group and as such, we continue to implement proactive actions to reduce environmental burden.

Percentage of the Environmental Impact of Toshiba Electronic Devices & Storage Corporation Group in the Entire Toshiba Group

(FY2018 Result)



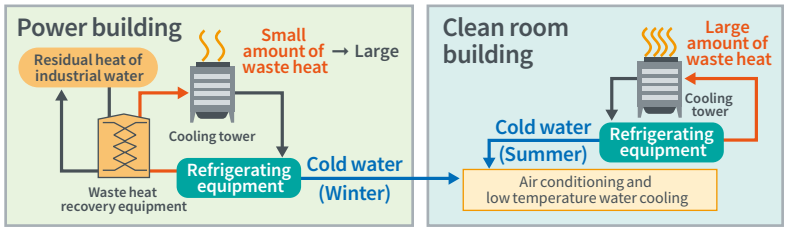
Climate change countermeasures

A large amount of energy is constantly used for air conditioning management, operation of manufacturing equipment and producing testing in the manufacturing processes of semiconductor products and HDD products. And PFC (perfluoro compound) gas is used in the etching process of semiconductor manufacturing, and CFC (chlorofluorocarbon) refrigerants such as HFC (hydrofluorocarbon) are used in cooling equipment such as air conditioning systems. Some of these gases also lead to climate change that is thousands of times more severe than CO_2. Our corporate group has therefore launched a project that crosses over corporate organizations in 2004, to reduce greenhouse gases with emphasis on “efficient manufacturing”. We consider facilities with greater energy saving effects and refrigerant equipment with low greenhouse effects when upgrading facilities, but at present, a large amount of energy is consumed to operate clean rooms and there are a large number of similar facilities in each process. An understanding and awareness of the process will lead to a significant reduction in the use of energy and gas.

Example case CO_2 reduction measures — Greater efficiency and use of waste heat

Japan Semiconductor Corporation Headquarters & Iwate Operations

We added a new line to utilize the waste heat of the clean room building that was unused. When there is a high demand for waste heat in winter, cold water is supplied from the power building, and meanwhile in summer, the refrigerating equipment in the clean room building is used to reduce the amount of electricity used for pumping water. In this way, we are increasing the use of waste heat in consideration of the energy of the entire plant.

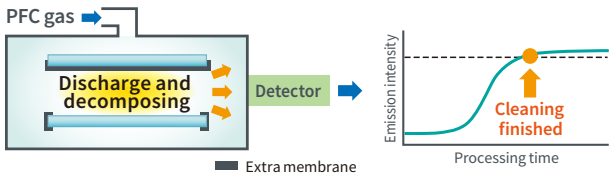


Amount of CO_2 reduction due to this measure — 650t-CO_2 / 4 months (December 2019～March 2020)

Example case PFC reduction measures — Reduction of PFC gas usage by optimizing the cleaning end point

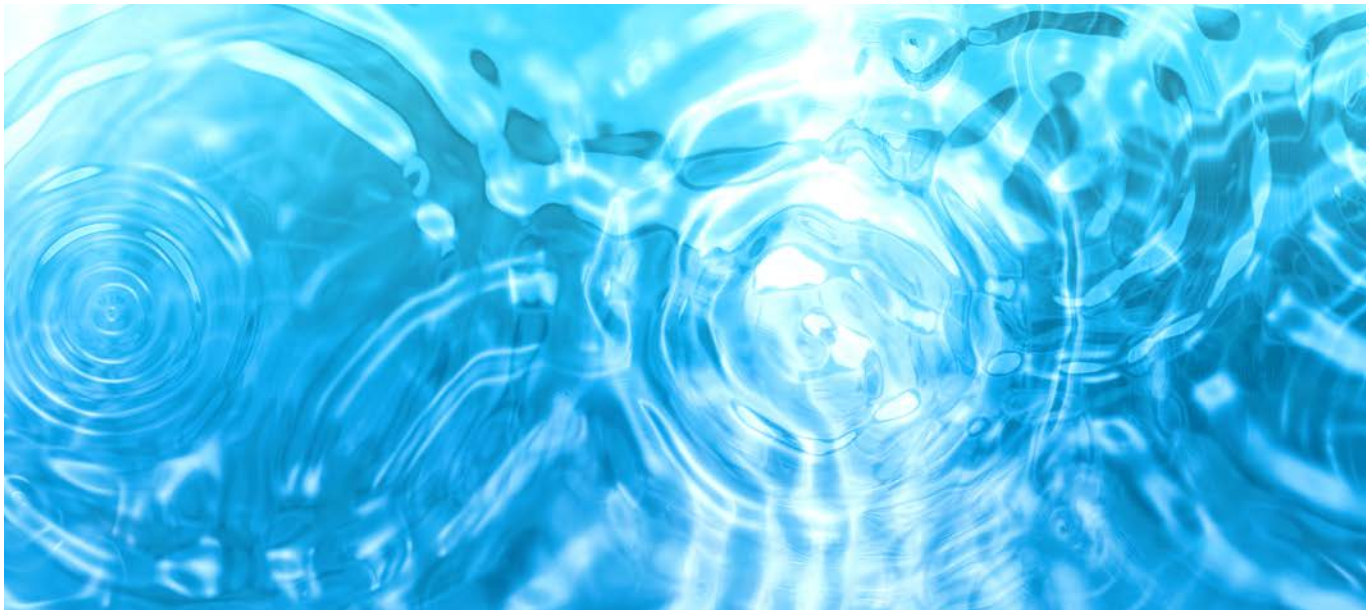
Japan Semiconductor Corporation Headquarters & Iwate Operations

Cleaning of deposition equipment is carried out using PFC gas on a regular basis in order to remove the excess membrane that adheres to the inside of the equipment, resulting in product defects. The PFC gas is discharged and decomposed in the equipment to remove the membrane.
By checking the completion of cleaning from the emission of fluorine radicals generated at this time, it is possible to reduce the amount of PFC gas used by optimizing the processing time, and to examine the type of gas used.



Amount of CO_2 reduction due to this measure — 526t-CO_2 / Year

Highly efficient use of water



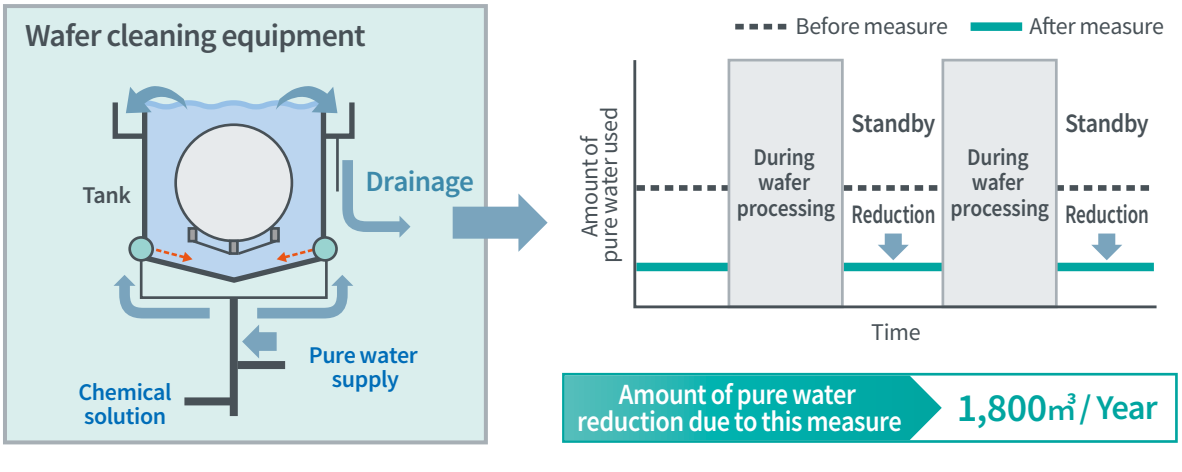
Extremely large quantities of water are consumed during the manufacture of semiconductors and hard disks, such as to dilute chemicals, for cleansing, as cooling water of equipment, etc. Our corporate group has a particularly high volume of water consumption within the Toshiba Group and we are making proactive efforts to use well water, reuse water, as well as recycle water in our day to day efforts to make efficient use of water resources.

Example case
Measures to reduce water usage

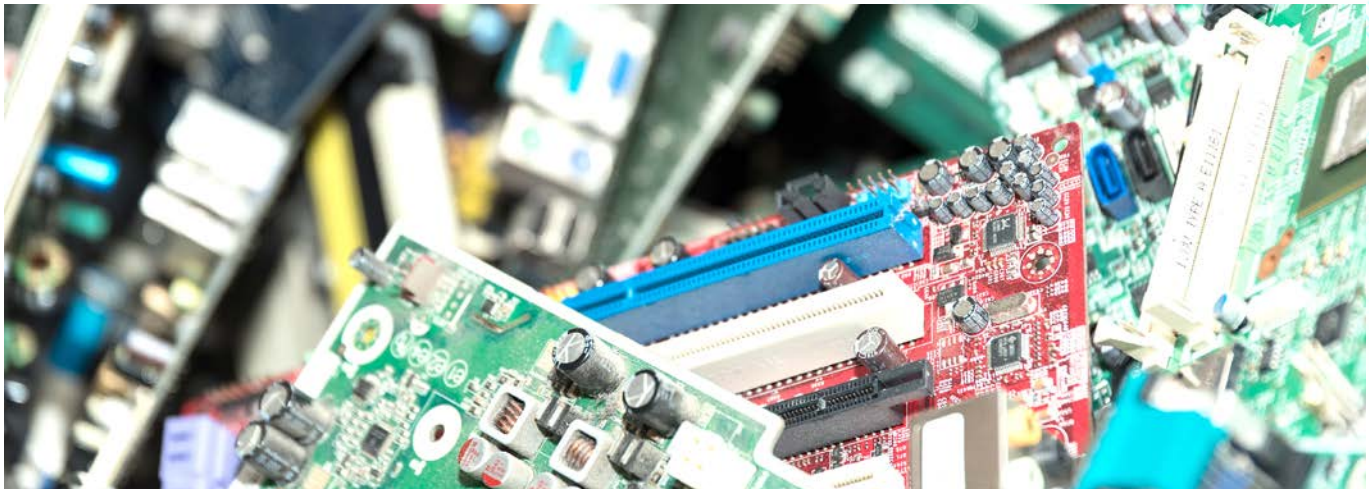
Reduction of pure water usage when equipment is on standby

Kaga Toshiba Electronics Corporation

Wafer cleaning equipment constantly supplies pure water in order to keep the water quality high in the equipment tank and piping. We are reducing the amount of pure water used by optimizing the amount of pure water that flows excessively when the equipment is on standby.



Reduction of waste materials generated and contributions towards resources recycling



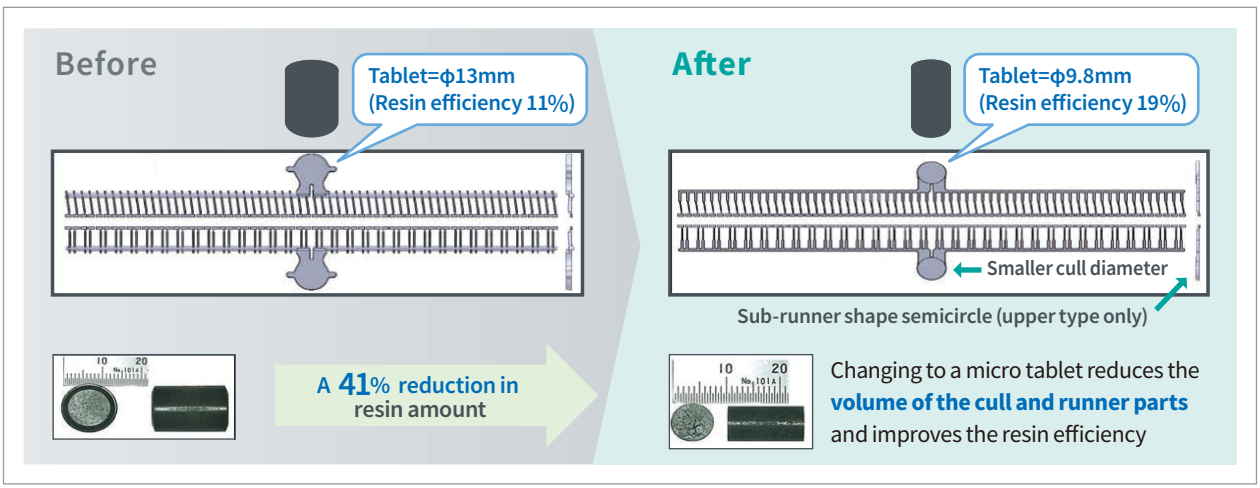
Industrial waste materials, such as plastic waste, chemical waste and sludge from drainage water treatment arise in manufacturing processes of semiconductors and so on. Our corporate group aims to build a recycling society and the whole group is proactively making efforts to that end and promoting contribution from both aspects of reducing waste generated by our business activities and recycling resources.
Resource recycling is promoted with thorough sorting at each site, while consumption of resources is minimized and the amount of chemicals used is optimized by improving processes and educational activity. The input side of consumption is reduced and that also leads to reduction of waste on the output side as a result, by being aware of effective use of resources.

Example case

Reducing waste by improving S-MINI mold resin efficiency

Buzen Toshiba Electronics Corporation

In the molding process of semiconductor manufacturing (small signal), tablet resin is used to form the package. The majority of this resin becomes waste due to its manufacturing characteristics, and this had been a problem in terms of the environment and material efficiency. By modifying the mold of the equipment used in this molding process and checking and reviewing conditions such as injection speed and pressure, it is now possible to use a miniaturized resin (micro tablet).



Effect of reducing resin amount	41% / Year
Effect of improving material efficiency	11%→19% / Year
Effect of reducing mold resin waste amount	9t / Year

Reducing Environmental Risks by Managing and Cutting Down on Chemicals

Efforts are of course made to limit the use of harmful chemical substances as much as possible and to find alternative harmless chemical substances, and consumption of chemical substances is reduced (optimization of consumption) by improving productivity through improving the manufacturing process and yield. We are also working to minimize the impact on the global environment of chemical substances by reusing and recycling them after use and detoxifying by way of exhaust gas treatment and wastewater treatment.
The reduction of environmental risk is promoted by taking actions that tackle both aspects of use as well as emission and disposal of chemical substances through reductions, thereby contributing to the protection of our global environment.

Example case

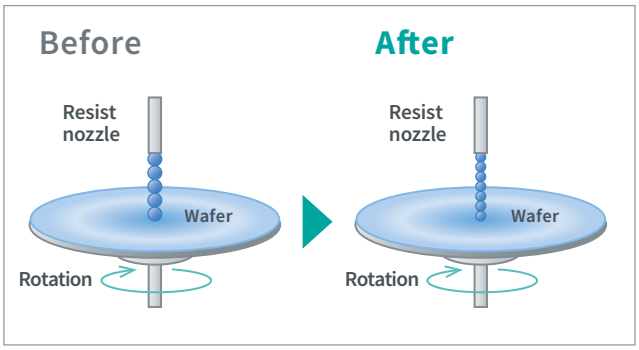
Reduction of the amount of chemical substances used and emissions in semiconductor manufacturing process (Resist coating optimization)

Toshiba Electronic Devices & Storage Corporation
Himeji Operations – Semiconductor

Japan Semiconductor Corporation
Headquarters & Iwate Operations / Oita Operations

Kaga Toshiba Electronics Corporation

For the amount of chemicals used in the resist process of the semiconductor manufacturing process (front-end), we reduced the amount of chemical substances used and emissions by examining the optimum conditions for each process and piece of equipment in order to apply this to a wide variety of products.



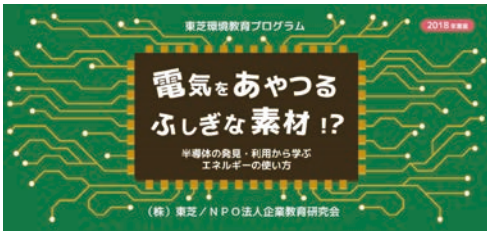
Reduction rate of chemical substances

Reduction of up to 52% / Year (Year-on-year)
Japan Semiconductor Corporation
Headquarters & Iwate Operations

Environmental Communication

Through proactive environmental communication activities, including biodiversity conservation work at our domestic and overseas bases, we are working to spread environmental information in society, and to improve the environmental awareness of employees.

Environmental Education



"Things we can teach because we are a company that manufactures semiconductors that support IoT society"

Our corporate group is conducting a variety of education on the environment, primarily at manufacturing sites both domestic and overseas, to children, who are our future generations. In FY2018, as a new effort, we started environmental education using semiconductors to educate children who live near our manufacturing bases nationwide.
Children coming into contact with semiconductor products that are being made at a factory nearby, we hope, would present an opportunity for them to consider environmental issues.

Activity report | Semiconductor-Related Environmental Education for Elementary School Students

"What are semiconductors like?" was the topic of the hands-on class designed to introduce children to semiconductors and to teach them how they are useful to our lives and the environment. There were many teachers and children who like science and the class was a great success. Feedback from the children included, "I learned that semiconductors are all around me, such as inside traffic lights." and "It's amazing to be able to make something so small." Their teacher said, "I'm always teaching them to be someone who can suggest new ideas, and this was a class that supported that notion." As a plant near where our children learn, we spread the message that semiconductors are helping to enrich our lives and achieve an energy-saving society.




Plants conducting activities in FY2019

Toshiba Electronic Devices & Storage Corporation
Himeji Operations – Semiconductor……108 fifth graders participated

Japan Semiconductor Corporation
Oita Operations……193 fifth graders participated

Buzen Toshiba Electronics Corporation……35 sixth graders participated

Communication

Japan Semiconductor Corporation Headquarters & Iwate Operations

Environmental briefing sessions starting with the community

Every year, we hold a 'Environmental briefing sessions starting with the community' with the aim of disclosing information to the local community and government, receiving advice on our activities, and utilizing this feedback in our future activities. The Environmental briefing sessions was held for the 15th time this year, and 18 people participated. We will continue our activities working together with local communities.

Kaga Toshiba Electronics Corporation

Responsive actions taken for onsite surveys conducted periodically by administrative authorities

Onsite surveys are periodically conducted by administrative authorities at plants that have concluded the agreement on pollution prevention. Efforts are made to sustain stable operations and to disclose accurate information to sustain manufacturing plants safe for all residents of the local community.

Community symbiosis

NuFlare Technology, Inc.

An international coastal cleanup effort

Our employees participated in an international coastal cleanup effort sponsored by JEAN, a non-profit environmental NGO, held at Kugenuma Kaihin Park in Fujisawa City, Kanagawa Prefecture. The international coastal cleanup effort is an international effort to investigate garbage picked up at around the same time and in the same way at waterside areas such as seas, rivers, and lakes all around the world before sharing this data. The garbage that was picked up contained a lot of fine plastic waste.

Toshiba Devices & Storage (Shanghai) Co., Ltd.

Removal activity of introduced species, “bur-cucumber” (Sicyos angulatus)

Employees participated in this activity to eradicate the introduced species, “bur-cucumber”. Bur-cucumber is a large vine of the gourd family that grows extremely fast and has a serious negative impact on the native ecosystem. We hope to raise environmental awareness through activities intended to protect ecosystems nearby.

Kaga Toshiba Electronics Corporation

Kaga Toshiba Forest greenery development activities

“What is Kaga Toshiba Forest like?”

As an ISO-certified company for developing rural natural areas in Ishikawa, we rented over 8 acres of Tatsunokuchi Kyuuryou Park in Nomi City, Ishikawa Prefecture, and here we continue greenery development activities with employees and their families twice a year in spring and autumn as part of our ‘Kaga Toshiba Forest’.
Our activities are entering their 7th year, and continuous activity was positively evaluated the “Meritorious Person for Forest Environment of Ishikawa” awarded in 2018.

Activity report | 13th “Kaga Toshiba Forest” greenery development activities

A total of 110 employees, resident company employees at the plant, and their families participated in the greenery development activities. The participants got a sweat on by establishing a new trail, removing fallen trees, weeding, and planting shiitake bed logs to be grown in spring, meanwhile the children dived right in to cutting logs and making a circular xylophone (a wooden music instrument) in the woodworking workshop.


Tug of war with a fallen tree


Establishing a new trail


Log cutting workshop


Making a circular xylophone (a wooden music instrument)

Efforts to biodiversity

Toshiba Electronic Devices & Storage Corporation Group conducts activities to preserve biodiversity at worksites both in Japan and overseas.

Toshiba Information Equipment (Philippines) Inc.

Philippines

Mangrove Tree Planting Activity

In a mangrove forest in the province of Bulacan, facing Manila Bay, we planted 1,000 mangrove saplings with local residents and students. The planted mangroves grow strong roots on black sand beaches, protect the coastline as a natural breakwater, and maintain the water quality and ecosystems. The rich fisheries nurtured by the mangroves also support the lives of neighboring fishing villages.

Sea turtle conservation activities

Our sea turtle conservation activities started in 2019. We participated in a sea turtle stocking activity on a beautiful sandy beach in Rabak, Cavite province, which is visited by many tourists.

Sea turtle

Sea turtle stocking

As well as spawning sea turtles, we also cleaned up the beach. We will continue to engage in the environmental conservation of beaches to conserve marine ecosystems.

Toshiba Semiconductor Thailand Co., Ltd.

Thailand

Freshwater Fish Stocking Activity

We participated in the stocking of more than 300,000 freshwater fish in the vast reservoir of a huge dam built by King Rama IX on the border between Prachin Buri and Sa Kaeo. The released freshwater fish contribute to the conservation of the ecosystem and the revitalization of the local fishing industry.

Freshwater fish stocking

Himeji Toshiba E.P. Corporation

Hyogo

Activities to Protect Chrysanthemum Japonense

Chrysanthemum japonense, or noji-giku, which is a type of flower unique to Japan, has white petals that bloom around a yellow tubulous flower. Chrysanthemum japonense has been popular since ancient times and is also the 'prefectural flower' of Hyogo prefecture. It is, however, designated as Rank C in IUCN's Red List as a Near Threatened (NT) species of Hyogo prefecture. Preserving and cultivating at the plant.

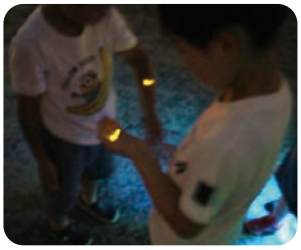
An expanse of chrysanthemum japonense

Japan Semiconductor Corporation Oita Operations

Oita

Preparing the river for the return of fireflies!

The activity started in 2010, to prompt a return of fireflies to Kitahanagawa River, located adjacent to Oita Operations. Activities continued in collaboration with local residents and in 2015 fireflies could be observed. Observation sessions are held annually, together with neighborhood children in the years. About 150 fireflies were observed in 2019.



Firefly watching activity

Toshiba Hokuto Electronics Corporation

Hokkaido

Protection of Ezo salamanders

Ezo salamanders, whose whole body is dark brown with a golden pattern, is endemic to Hokkaido, but concerns about a decrease in its spawning areas has seen it designated as a noteworthy species on Hokkaido's Red List. We are carrying out ex-situ conservation activities such as protecting and breeding Ezo salamanders, spawning and hatching them, and then returning them into the wild. When we try to feed them, all the hiding salamanders stare right at us. We feel a certain 'cuteness' that beams from their round eyes.

Activities conducted by all sites can be viewed on the Biodiversity Activities Introduction page of Toshiba Group.

Toshiba Group Biodiversity

Awarded activities

Japan Semiconductor Corporation

2019 Excellent Enterprise Award for Environmental Human Resource Development "Excellence Award"

Japan Semiconductor Corporation has now won awards four years in a row, having previously received the Incentive Award, Excellence Award, and the Minister of Environment Award at the same awards ceremony. As activities to educate employees, we are working to improve employees' environmental awareness through various initiatives such as setting energy-saving months (power facility tours, etc.) and holding idea recipe contests using ingredients that are usually discarded. Also, in collaboration with the Tohoku ESD Forum and Iwate University, and various bodies as represented by environmental education workshops for elementary school students, we are training environment-orientated human resources through contributing to society and communication with people outside the Group.

Flower planting event:
'Flowing Paths Gathering Project'

Excellent Enterprise Award for Environmental Human Resource Development:
This award ceremony is sponsored by the Ministry of the Environment and the Environmental Human Resources Development Consortium. Awards are given to companies who excel in their efforts to train human resources in-house who will lead environmental conservation and efforts to bring about a greener society and economy with the goal of achieving corporate management in harmony with the global environment.

*1: A collaboration platform between industry, academia, and public and private sectors for promoting the training of environment-orientated human resources

Exchanging opinions at an exchange meeting with other companies

Environmental education workshop for elementary school students, which celebrated its 16th anniversary this year

Toshiba Electronic Devices & Storage Corporation Group

Winner of the Nature Conservation Society of Japan's 2020 Grand Prize

Winner of the Biodiversity Action Award 2019 (Preservation category)

We are promoting biodiversity conservation activities with various stakeholders such as experts, NPOs, NGOs, local residents, and employees at 8 manufacturing bases nationwide, and our efforts based on their continuation and regional characteristics have now been awarded. Based on the Sustainable Development Goals (SDG), our interest in biodiversity, and a rise in action, we will continue to promote activities that take advantage of the characteristics of each region at each base.

- **Toshiba Hokuto Electronics Corporation (Hokkaido)**
  Ex-situ conservation of Ezo salamanders at the plant
- **Japan Semiconductor Corporation Headquarters & Iwate Operations (Iwate)**
  Conservation of primroses, Japanese primroses, day lilies, goosenecks, and Japanese hackberries at plants and the beckoning of Japanese emperor butterflies.
- **Kaga Toshiba Electronics Corporation (Ishikawa)**
  Planting prenanthes tanakae, acer diabolicum, equisetum moorei Newman at plants and 'Kaga Toshiba Forest' development activities
- **NuFlare Technology, Inc. (Kanagawa)**
  Environmental conservation around Mt. Fuji
- **Toshiba Electronic Devices & Storage Corporation Himeji Operations – Semiconductor (Hyogo)**
  Ex-situ conservation of thoroughwort and golden venus chub
- **Himeji Toshiba E.P. Corporation (Hyogo)**
  Conservation of chrysanthemum japonense and aristolochia debili
- **Buzen Toshiba Electronics Corporation (Fukuoka)**
  Conservation of swallowtail butterfly
- **Japan Semiconductor Corporation Oita Operations (Oita)**
  Conservation of firefly

A chestnut tiger butterfly flying onto a thoroughwort
Toshiba Electronic Devices & Storage Corporation Himeji Operations – Semiconductor (Hyogo)

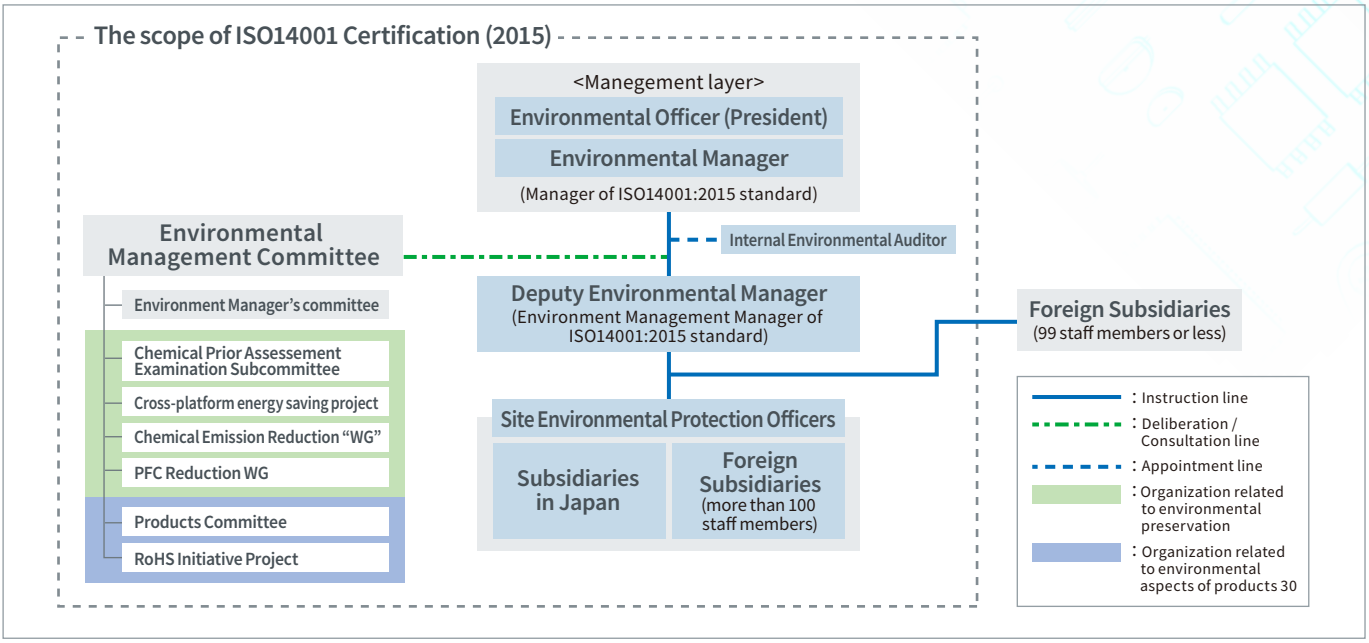
Fireflies glowing in the hands of children
Japan Semiconductor Corporation Oita Operations (Oita)

Chrysanthemum japonense blooming proudly at our plant
Himeji Toshiba E.P. Corporation (Hyogo)

Foundations for environmental management

Environmental Management System

We are actively rolling out activities based on an environmental management system that manages and responds to important environmental issues with management at the top of the system's hierarchy.



Activities supporting environmental management

Environmental education

In order to raise awareness of environmental management, the Group conducts environmental education through e-learning for all employees. In addition, based on the Toshiba Group's internal auditor training program, we are conducting Toshiba Comprehensive Environmental Audit System Auditor Training, which consists of written exams and on-site training on environmental laws, ISO14001, internal guidelines, regulations, etc.

*1: All Toshiba environmental education and our corporate group environmental education are respectively conducted annually.

Environmental education for all employees **Twice a year*1**

Compliance with Laws and Risk Management

We set voluntary control values stricter than legal regulations *2 in respect of the environmental burden of emissions to the atmosphere, or to bodies of water, and comply with these at each site. In FY2019, however, a total of three problems relating to environmental laws and regulations occurred, including drainage problems at some plants and administrative permits and notification omissions. We will once again strive for flawless legal compliance and thorough risk management with all our employees.

*2: Ozone Layer Protection Law, Chemical Substances Control Law, Water Pollution Control Law, etc.

Problems relating to environmental laws and regulations **Three**

Environmental Management Committee

With the Environmental Management Officer as chairperson, a global environment conference is held twice a year with executives as the committee members and, in addition to deciding environmental management guidelines, priority measures such as legal compliance, reports on the status of base activities, and other individual environmental issues are discussed. Regarding matters of decisions, employees will be fully notified through base directors or presidents of the affiliated companies.

Environmental Management Committee **Twice a year**

Implementation of Environmental Audit at Toshiba group

From 1993, the Group conducts periodic environmental audits (Toshiba Comprehensive Environmental Audits) for Toshiba Corporation and separate companies of Toshiba Corporation based on some typical Japanese business practices with associated mnemonics. These translate roughly as: 3 ALLs for management of ALL facilities, in ALL areas, by ALL members; 3 ACTUALs for ACTUAL sites, ACTUAL things, ACTUAL situations; 3 SEEs of visual management for SEEing, being able to SEE, letting others SEE". The audit consists of Environmental management audit, Audit on compliance with laws, and Site audit. Particularly for site audits, in addition to the 19 facilities subject to the law, effectiveness-audits for response training in hypothetical emergencies are also implemented. We will also thoroughly review compliance with laws and regulations, measurement management, organization and orderliness, cleaning and cleanliness, and employee education. With regard to items for improvement extracted during the audit, we will implement measures within half a year, and will link these to further optimization of on-site management and ongoing improvements.

Environmental Audit at Toshiba group **11 Sites**

Acquisition of ISO14001 Certification

Toshiba Electronic Devices & Storage Corporation Group is proceeding with the acquisition of integrated certification for all its global business processes, and has renewed ISO14001:2015 certification (at 9 company sites within Japan and 7 sites outside Japan*1) on August 7, 2019.

We will continue our contributions to resolve social issues by the creation and offering of energy and resource conservation and products that are consistent with the business policy based on our global comprehensive environmental management system. We will also strive to minimize impact on the environment by our organization, conduct community outreach according to regional characteristics, and conduct biodiversity preservation activities along with effective environmental management activities. For the business locations and subsidiaries that have acquired certifications and certification numbers, etc., refer to the following table.

Name of the organization	Certified body	Registration date	Approval certificate No.
Toshiba Electronic Devices & Storage Co., Ltd. Head Office (Head Office Bldg. and Sales Office Sites)	JACO*2	1996.02.02	EC98J2014
Toshiba Electronic Devices & Storage Co., Ltd. Himeji Operations-Semiconductor			
Toshiba Electronic Devices & Storage Co., Ltd. Head Office Branch (Komukai Branch • Semiconductor System Engineering Center Branch)			
Kaga Toshiba Electronics Corporation			
Himeji Toshiba E.P. Corporation			
Buzen Toshiba Electronics Corporation			
Japan Semiconductor Corporation Headquarters & Iwate operations			
Japan Semiconductor Corporation Oita Operations			
NuFlare Technology, Inc.			
Toshiba Device Corporation			
Toshiba Electronic Device Solutions Corporation			
Toshiba Semiconductor (Thailand) Co., Ltd.			
Toshiba Electronics Europe GmbH.			
Toshiba Electronics Asia, Ltd.			
Toshiba Devices & Storage (Shanghai) Co., Ltd.			
Toshiba Electronics Asia (Singapore) Pte. Ltd.			
Toshiba Electronic Components Taiwan Corporation			
Toshiba Electronics Korea Corporation			
Toshiba Materials Co., Ltd.			
Toshiba Hokuto Electronics Corporation	JACO*2	1998.09.25	EC98J1066
Toshiba America Electronic Components, Inc.	DNV*2	2010.06.29	10000244915-MSC-ANAB-USA
Toshiba Information Equipment (Philippines), Inc.	TÜV Rheinland	2018.11.20	01 104 023260
Toshiba Hokuto Electronic Devices (Thailand) Co., ltd.	BUREAU VERITAS	2001.03.16	TH012209

*1 The subjects are the main company and all consolidated companies (manufacturing and non-manufacturing) and overseas consolidated companies (manufacturing and non-manufacturing) with over 100 employees.

*2 JACO : Japan Audit and Certification Organization for Environment and Quality
DNV : DET NORSKE VERITAS AS Group

Cooperation for third-party evaluation

Toshiba Corporation receives third-party verifications of greenhouse gas emissions for the purpose of improving the reliability of our environmental performance data, and the Group also cooperates in the said verifications as a member of the Toshiba Group. In FY 2019, Japan Semiconductor Corporation Headquarters & Iwate Operations underwent verification from the Company base in respect of global data, which concerned data collection, aggregation, internal verification processes, etc.

Stakeholder Engagement Status

We aim to further improve our environmental management by actively communicating with stakeholders, identifying important environmental issues, and deciding response policies based on the needs clarified through interacting with stakeholders.

Stakeholder	Engagement Opportunities	Achievements
Suppliers	• familiarizing suppliers with Green Procurement Guidelines	• Implementation of green procurement seminars for suppliers
	• Implementation of audits of parts suppliers	• Audits are conducted once every three years for all parts suppliers.
Customers	• Communication with stakeholder	• Publishing of Environmental Report -Japanese version : Published September 30, 2019 -English version : Published November 29, 2019 • Release of external website "Environmental Activities"
	• Environmental survey correspondence	• We are ready to respond to contact from our customers regarding surveys in relation to our environmental quality control system for products, substances contained in our products, and environmental conservation, etc.
Internal	• Implementation of in-house environmental education	• Conducting environmental education through e-learning for all employees twice a year • Implementation of separate education for specific workers • Conducting Toshiba Comprehensive Environmental Audit System Auditor Training • Implementation of education for sales departments on environmental laws and regulations
	• Conducting Environmental Management Committee	• With the environmental manager as its chair and executives as committee members, this meeting has been held twice. • This meeting will also be held at each manufacturing and sales base of the Group.
Local community	• Dialogue between plants and residents	• Implementation of 'Environmental briefing sessions starting with the community' was held by inviting citizens, neighboring companies, university faculty, students, and government officials. (p.18)
	• Providing education	• Conducting Environmental Education for elementary school students -ECO Educational workshops -External classes (p.18)
	• Interaction with the local community	• Implementation of forest conservation and development activities in Kaga Toshiba Forest (p.19) • Activities to beckon back fireflies (p.20) • Activities to weed, plant flowers, and pick up trash around national highways (p.19) • Holding of joint environmental exhibition with local companies

Statement of Environmental Philosophy of Toshiba Electronic Devices & Storage Corporation Group

Vision

Recognizing Toshiba Group's Basic Policy for the Environment that the Earth is an irreplaceable asset and it is humankind's duty to hand it on to future generations in a sound state, Toshiba Electronic Devices & Storage Corporation Group is pursuing creation of new values and symbiosis with the Earth. Also Toshiba Electronic Devices & Storage Corporation Group contributes to the development of a sustainable society by promoting environmental activities designed to contribute to the realization of a world that is de-carbonized, recycling-based and nature-harmonious.

Policy

Toshiba Electronic Devices & Storage Corporation Group considers environmental stewardship to be one of management's primary responsibilities, and with our passion of "Our semiconductor and storage products will always be a driving force to change the world", Toshiba Electronic Devices & Storage Corporation Group strives to take the environment into consideration in its business activities such as development, manufacturing, sales, services, and disposal from life cycle perspective, and aims to contribute to the solution of social issues by its products and manufacturing created by technology and with passion toward the realization of sustainable society.

1. Compliance and sustainability

1) Toshiba Electronic Devices & Storage Corporation Group complies with all applicable laws and regulations, industry guidelines it has endorsed, and its own standards concerning the environment.

2) Toshiba Electronic Devices & Storage Corporation Group strives to continuously improve and effectively apply its environmental management system through internal audits and reviews in order to enhance environmental activities level and environmental performances.

2. Execution

Toshiba Electronic Devices & Storage Corporation Group strives to assess the environmental impact of its business activities, including with regard to biodiversity, which comprise of development, procurement, manufacturing and sales, set objectives with respect to energy saving and resource saving development and design of products, reduction of environmental impact, pollution prevention, and execute proactive environmental measures including the following:

1) Striving to create and supply products that contribute to solving social issues.

2) Promoting reduction greenhouse gases generated by our business activities to mitigate climate change.

3) Striving to reduce waste and make effective use of water resources by minimizing resources used in business activities and promoting 3Rs in order to build a recycling-based society.

4) Striving to manage chemical substances used in our business activities and reduce the amount handled and emitted in order to reduce environmental risk.

5) Striving to maintain and restore biodiversity in order to live in harmony with nature.

6) Striving to disseminate information and collaborating with local communities and society to facilitate mutual understanding with stakeholders.

7) Striving to enhance the environmental awareness with respect to all group members in order to process business activities considering environment throughout Toshiba Electronic Devices & Storage Corporation Group.

Toshiba Electronic Devices & Storage Corporation Group discloses this Statement of Environmental Philosophy to the public, promotes awareness of this Statement of Environmental Philosophy throughout Toshiba Electronic Devices & Storage Corporation Group, and promotes its business activities according to this Statement.

1st April, 2020
Toshiba Electronic Devices & Storage Corporation
President & CEO **Hiroyuki Sato**

Correspondence table with "Environmental Reporting Guidelines 2018" by Ministry of the Environment

Environmental Reporting Guidelines 2018	Toshiba Electronic Devices & Storage Corporation Environmental Report 2020	
Item	Corresponding item	Relevant pages
Chapter.1: Basic information of environmental reporting		
1. Basic requirements for environmental reporting		
Boundary of the reporting entity	Scope of the report	P.26
Reporting period for information provided	Scope of the report	P.26
Reporting standards, guidelines or the like	Environmental Reporting Guidelines 2018	P.26
Overview of the environmental report	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
	Toshiba Electronic Devices & Storage Corporation Environmental Activities https://toshiba.semicon-storage.com/ap-en/company/about/environment.html	—
2. Trends in key performance indicators	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
Chapter.2: Items to be reported in environmental reporting		
1. Top management's commitments		
Top management's commitments on the entity's response to material environmental issues	Top Management Commitment	P.03
2. Governance		
The entity's governance structure	Environmental Management System	P.22
Name of the manager responsible for material environmental issues	Environmental Management System	P.22
The roles of the board of directors and the board of executive officers in the management of material environmental issues	Environmental Management System	P.22
3. Stakeholder engagement		
Corporate policies to stakeholders	Stakeholder Engagement Status	P.24
Overview of stakeholder engagement activities conducted in the reporting period	Stakeholder Engagement Status	P.24
4. Risk management		
Environment-related risk identification, assessment, and management processes	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
	Reduction of Environmental Impact in Manufacturing	P.13
Positioning of the above processes within the entity's overall risk management	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
	Reduction of Environmental Impact in Manufacturing	P.13
5. Business model		
The entity's business model	Value Chain Management	P.08
	Products that contribute to resolving social issues	P.09-P.10
6. Value chain management		
Value chain overview	Value Chain Management	P.08
Green procurement policy, objectives, and results	Value Chain Management	P.08
	Material procurement with consideration for the environment	P.12
Status of eco-friendly products and services	Value Chain Management	P.08
	Responding to Customer Inquiries	P.12
7. Long-term vision		
Long-term vision	Toshiba Group The Sixth Environmental Action Plan	P.04
Time period covered by the long-term vision	Toshiba Group The Sixth Environmental Action Plan	P.04
Reasons why that time period was selected	Toshiba Group The Sixth Environmental Action Plan	P.04
8. Strategy		
Business strategy of an entity developed for contributing to the achievement of a sustainable society	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
9. Methodology fort identifying material environmental issues		
Procedure by which the entity identified its material environmental issues	Toshiba Group The Sixth Environmental Action Plan	P.04
	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
List of identified material environmental issues	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
Reasons that the identified environmental issues were judged material	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
Boundaries of the material environmental issues	Value Chain Management	P.08
10. The entity's material environmental issues		
Policies and/or action plans	Toshiba Group The Sixth Environmental Action Plan	P.04
	Statement of Environmental Philosophy of Toshiba Electronic Devices & Storage Corporation Group	P.25
Targets and results of policies / action plans based on performance indicators	Toshiba Electronic Devices & Storage Corporation Targets and actual results for environmental performance (11 items in total)	P.05-P.07
Methodologies used for calculating each performance indicator	Included on the environmental activity website 'Environmental Accounting' of Toshiba Corporation https://www.toshiba.co.jp/env/en/management/account.htm	—
Aggregation scope of data for each performance indicator	Included on the environmental activity website 'Environmental Accounting' of Toshiba Corporation https://www.toshiba.co.jp/env/en/management/account.htm	—
Financial impact of related risks and opportunities and calculation methodology thereof, if the financial impact is significant	Included on the environmental activity website 'Environmental Accounting' of Toshiba Corporation https://www.toshiba.co.jp/env/en/management/account.htm	—
An assurance report, if an independent third party provided assurance to the items to be reported	Cooperation for third-party evaluation	P.23

Scope of the report

Reporting period : Fiscal 2019 (from April 1, 2019 to March 31, 2020)
Although the report focuses on the results of activities in fiscal 2019, it also includes those ongoing activities prior to and after fiscal 2019.

Organizations covered : Toshiba Electronic Devices & Storage Corporation Group*
*"Toshiba Electronic Devices & Storage Corporation Group" where mentioned, is a separate company of Toshiba Corporation, and refers to Toshiba Electronic Devices & Storage Corporation and its consolidated subsidiaries in Japan and overseas.

Publication

Previous issue: November 2019
Current issue: November 2020

Editor's postscript

Thank you for reading the Environmental Report 2020.
This report will introduce our achievements and goals based on The 6th Environmental Action Plan of the Toshiba Group, their contribution to SDGs, and value chain management and stakeholder engagement. It will also explain in detail how our environmental activities meet the demands of SDGs and stakeholders. In addition, we hope this report deepens your understanding of our contribution to society through our environmental activities together with the latest case studies of our activities introduced in this pamphlet.
If you have any questions about our activities or the content of this report, kindly contact us through the following URL.
https://toshiba.semicon-storage.com/ap-en/company/about/environment.html
Productivity Planning Div. Environment Planning Promotion Group, Toshiba Electronic Devices & Storage Corporation

Toshiba Electronic Devices & Storage Corporation

Environmental Report 2020

2020-11
ECE0004M

- If you have any inquiries, please contact us at the following website.
  https://toshiba.semicon-storage.com/ap-en/company.html
- The original texts of laws and regulations, including but not limited to the EU RoHS Directive should be consulted for a full understanding of legal requirements. Environmental laws and regulations may be revised at any time, so users should take care to remain informed. The information contained herein is intended to be informative but carries no legal authority and does not constitute legal advice.
- Toshiba Electronic Devices & Storage Corporation Group reserves the right to revise the content of this Environmental Report without notice.
- The information contained herein is subject to change without notice.

Our semiconductor and storage products will always be a driving force to change the world

Toshiba Electronic Devices & Storage Corporation