

TOSHIBA CORPORATION SEMICONDUCTOR & STORAGE PRODUCTS COMPANY ENVIRONMENTAL REPORT



ENVIRONMENTAL REPORT





TOSHIBA CORPORATION Semiconductor & Storage Products Company 2016-2

The Environmental Report 2015 of the Semiconductor & Storage Products Company of Toshiba Corporation presents the results of the Semiconductor & Storage Products Company Group's environmental management activities in fiscal 2014. This report has been compiled by referring to *The Guidelines for Environmental Report (fiscal 2012 version) of the Ministry of Environment, Japan* and *The Guidelines for Environmental accounting (fiscal 2005 version) of the Ministry of Environment, Japan*.

This report has two major objectives: (1) to explain our energy saving efforts in our product development and (2) to describe the environmental preservation activities conducted by our plants.

[Scope of the report]

Reporting period: Fiscal 2014 (from April 1, 2014 to March 31, 2015)

Although the report focuses on the results of activities in fiscal 2014, it also includes those ongoing activities prior to and after fiscal 2014.

Organizations covered:

* "Semiconductor & Storage Products Company" or "Toshiba Semiconductor & Storage Products Company" in this report means the Semiconductor & Storage Products Company of Toshiba Corporation which is one of the in-house companies of Toshiba Corporation.

Meanwhile, "Semiconductor & Storage Products Company Group" and "Toshiba Semiconductor & Storage Products Company Group," in this report mean the Semiconductor & Storage Products Company and its consolidated subsidiaries in Japan and overseas.

Note: When referenced in this report, "Toshiba Group" means Toshiba Corporation and its consolidated subsidiaries in Japan and overseas.

[Publication]

Previous issue: February 2015 Current issue: February 2016

Semiconductor & Storage Products Company Overview (as of 31 March, 2015)

Company name: Toshiba Corporation Semiconductor & Storage Products Company,

Address: 1-1-1, Shibaura, Minato-Ku, Tokyo 105-8001, Japan

Number of employees: 34,000 (Electronic Devices segment as of 31 March, 2015)

Consolidated sales: 1,768,800 million yen (Electronic Devices segment in FY2014)





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- \cdot Acquisition of 14001 Certification
- Third Party Verification

We promote environmental management with the goal to help resolve social issues.



Seiichi Mori President, Toshiba Semiconductor & Storage Products Company

Foreword

In recent years, cities in emerging nations have been continuously growing, and population is on the increase in many cities across Asia. The middle-class purchasing power in these cities has been enhanced, and the ownership rates of durable consumer goods, such as electronics, are increasing rapidly. On the other hand, the infrastructure needed to support this growth is often insufficient, making this an issue to resolve. Since resources on earth are limited, we know the resolution of this issue requires social



innovation such as energy /resource conservation.

The Toshiba Group is conducting business activities in the fields of energy, storage and healthcare to cope with environmental and energy/resource issues, population growth problems and aims at the realization of a "safe, secure and comfortable society (Human Smart Community)." Semiconductor & Storage Products Company is not an exception but is working toward the realization of a Human Smart Community through product development including storage products that contribute to energy savings at data centers, power devices that contribute to energy conservation with various applications along with our efforts to promote environmental/energy saving measures at manufacturing sites.

We contribute to optimum solutions to resolve social issues.

Semiconductor & Storage Products Company is developing products aimed at the improvement of energy conservation, information processing capability and security of devices in order to help spread and promote advanced IoT (Internet of Things), which is believed to be a critical element for the realization of a "safe, secure and comfortable society (Human Smart Community)."

As electronics become widespread globally and cloud computing expands, information storage has exploded worldwide. Data centers that store this data require high speed and large capacity storage systems, but more advanced energy conservation must be promoted at the same time. We are working to enhance the performance of our SSDs (solid state drives) with NAND-type flash memories and HDDs (hard disk drives) for data centers and propose the construction of space-saving and low-power consumption storage systems utilizing the high-speed data processing capability of NAND-type flash memories.

Meanwhile, we are proceeding with energy saving and downsizing of system LSIs for automotive and healthcare devices and also pursuing the upgrade of connectivity (sensing, communication and control).

We work in interdepartmental teams towards reduction of the environmental impact due to manufacturing.

The quantity of energy originated CO₂ emissions by Semiconductor & Storage Products Company during manufacturing processes comprises around 60% of the entire emission quantity of the Toshiba Group. As we expand the production scale of our semiconductor and storage businesses, the energy consumption during manufacturing processes are on the increase. However, we are working on control of energy consumption as one of the most critical issues for management from the perspective of global warming.

For instance, Facility Department staff who manage power systems, along with Engineering and Production Department staff, at the Yokkaichi Operations that produces NAND-type flash memories, regularly get together and exchange their views about rationalization of manufacturing processes. They also discuss energy conservation of clean rooms and manufacturing tools from various viewpoints, thereby promoting reduction of power consumption on manufacturing lines. Those efforts brought about an approximately 13% reduction in energy originated CO₂ emission at the No. 5 manufacturing ward completed in FY2014 from that at the No. 4 manufacturing ward completed in FY2007. Moreover, at the new No. 2 manufacturing ward, which is under construction, further energy conservation efforts are promoted. The data from these pioneering energy conservation efforts are shared internally through all production facilities, leading to the introduction of these interdepartmental measures in other factories as well.

We are also promoting effective utilization of resources and the reduction of chemical substances. All plants are working at reducing chemical substances, re-use of waste liquids, 3R (Reduce, Reuse and Recycle) education, and other efforts in their manufacturing processes. Last fiscal year, the Yokkaichi Operations won the 3R Promotion Association Chairman's Prize at the Awarding of 3R Promotion Manager and Minister of Economy, Trade and Industry Prize at the Awards for Resource-Recycling Technologies and Systems.

We will make efforts in the promotion of energy conservation, efficient use of resources and other ways of reducing environmental impact in our manufacturing processes in order to make our company's leading-edge manufacturing craftsmanship more sustainable.

We will continue to deepen bonds in local communities through our environmental communication efforts to connect people.

The TOSHIBA Group has conducted the Toshiba Group Global Environmental Action since FY2013, aiming at expanding environmental communication to connect people around the world. In FY2015, we designated June 5, World Environment Day, as the day for Toshiba Group Global Environmental Action, and all Toshiba Group employees in various parts of the world took environmental action together over two months between April 1 and June 5. Semiconductor & Storage Products Company developed the activities in consideration of the regional characteristics, such as 3R activities, biodiversity preservation activities and participation in environmental exhibitions, at all its manufacturing sites in Japan and overseas, and in sales offices in North America.

Furthermore at our regional manufacturing sites, we invite members of local residents associations and people from neighboring areas to open meetings to inform them of our plants' environmental efforts. We also visit local elementary schools to introduce environmental issues. These are some of the activities that we use to socialize with local residents. We will continuously endeavor to inform them of our environmental activities through these exchanges in local communities.

We seek your continued understanding and support of the business activities and environmental efforts of the Toshiba Semiconductor & Storage Products Company Group.

Introduction

Promotion of biodiversity preservation together with local communities

A critical activity of the Toshiba Group's promotion of environmental management is its effort to preserve biodiversity. From a very broad perspective, biodiversity relates to the status of creatures existing directly and indirectly connected to each other. In recent years, however, more and more regions are losing biodiversity due to land development, overhunting, global warming, decrease of satoyama (urban/rural border zone) and introducing alien species. Once a certain part of the ecosystem collapses and looses balance, it will take an excessive amount of time to recover. Therefore, we think that protecting and fostering rare species and preserving regional biodiversity are extremely important efforts to ensure healthy ecosystem in the future. Globally, the importance of biodiversity has increased. For instance, the Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) (COP10) held in 2010 adopted the strategic goal of "addressing the underlying causes of biodiversity loss by mainstreaming biodiversity across society" (the "Aichi Target"). Participating nations have been working on the compilation of national strategies ever since. The employees of Semiconductor & Storage Products Company have joined together in promoting regional biodiversity preservation activities in cooperation with public administrations, NPO and other related organizations at its sites in Japan and overseas. Out of these activities, this article introduces the specific activities mainly the cases of lwate Toshiba Electronics and Kaga Toshiba Electronics.

Efforts to protect rare plant species at facilities through employee-participation activities - Iwate Toshiba Electronics Case -

Iwate Toshiba Electronics, situated in Kitakami City, Iwate Prefecture, is a manufacturing site for semiconductors. They produce image sensors, MCU/ASIC products for home appliances and analog automotive devices. This company is involved in a wide range of environmental activities, among which they are especially focused on biodiversity preservation activities.

All departments participating in activities for propagating rare species

Those involved in biodiversity preservation activities are proactively making efforts to protect rare plant species. In 2013, members of Iwate Toshiba Electronics built beds of rare plants in the marsh at the exterior perimeter on the premises, seedlings of rare plants including gooseneck loosestrifes and broad dwarf day-lilies.

In 2015, all seven company departments participated in activities for the propagation of rare plant species. They collected the seeds of broad dwarf day-lilies, primroses and Japanese primroses which bloomed the year before, and nursed their seedlings. On the other hand, in order to invite the great purple emperor, Japan's national butterfly, native to the vicinity, they planted one young tree and

eight nursery stocks of Ezoenoki (Celtis jessoensis) that butterflies feed on, in the effort to expand the butterflies' habitat as much as possible. Since nymphalid butterflies, related to the great purple emperor, were seen nearby, the targeted species are expected to come flying soon.



Employees expanding broad dwarf day-lily flowerbeds (Bottom left)

Valuing communication with local communities

Iwate Toshiba Electronics is also focused on exchanges with local residents. The company holds an environmental report meeting every year, which is a significant opportunity to exchange views with the local residents and enterprises as well as administrative personnel. We also offer plant tour. These endeavors help deepen mutual communication and conduct effective environmental preservation activities.

The environmental efforts by Iwate Toshiba Electronics were highly evaluated by receipt of the ECO Action Award of 2014 from the Iwate Prefecture. This award has been a great encouragement to the company in developing future activities. Iwate Toshiba Electronics is committed to continuously spreading the importance of biodiversity and other environmental preservation actions and exchanges with employees and visitors to the plant.





Japanese primroses

Gooseneck loosestrifes

Preserving biodiversity through forest maintenance - Kaga Toshiba Electronics Case -

Kaga Toshiba Electronics is situated in a rich natural environment in the suburb of Nomi City located in Kaga the southern area of Ishikawa Prefecture. It produces LEDs and discrete semiconductors for such uses as smartphones, automobiles, railways and elevators. The Kaga region has many beautiful satoyama (urban/rural border zone), which has formed an ecosystem where a wide variety of creatures live along with human beings since ancient times. In recent years, however, depopulation has increased in this area as elsewhere, which has caused a decrease in production of firewood and farmland use, eventually resulting in insufficient maintenance of satoyama forests. A satoyama left unmaintained soon becomes thick with underbrush and increased canopy shutting out sunlight and ultimately leading to loss of rich biodiversity.

Acquired "Ishikawa Satoyama ISO" certification from Ishikawa Prefecture

Ishikawa Prefecture established the Ishikawa Satoyama ISO system to recognize satoyama use and conservation efforts made by corporations and groups to preserve them. Kaga Toshiba Electronics acquired this certification in 2011 and has been proactively involved in the local satoyama conservation efforts.

As a part of its efforts, Kaga Toshiba Electronics was lent 3.3 hectares of the Tatsunokuchi Kyuryo Park under a fourparty agreement with Nomi City, Tatsunokuchi Kyuryo Park and the South Kaga Agricultural and Forestry Office of Ishikawa Prefecture in November 2012. The Company named this part of the Park "Kaga Toshiba Forest" and has been developing its unique satoyama conservation activities, gaining cooperation of local organizations and groups, such as the local civic group Nomi no Satoyama Fan Club (Nomi Satoyama Fan Club) and the Group of Ishikawa Satoyama Conservation Activity Leaders.

Biannual events to maintain satoyama

Kaga Toshiba Electronics holds a maintenance activity twice a year, an event joined mostly by employees and their families in the spring and autumn, to preserve the "Kaga Toshiba Forest".

The concept of this event is to "Take it easy and enjoy yourself long term". Participants enjoy ways to interact with nature including creation of forest paths, forest thinning and underbrush clearing and shiitake mushroom cultivation along with creating crafts made from wood cleared from the forest. Participants have increased year-on-year. A total of 169 participants, composed of 149 participants from the Company's employees and their families, along with members of cooperative groups, joined together at the fifth biannual event held on April 18, 2015.

Biodiversity returns to forests

Paths created in the forest promotes better management of the forest. Thinning and weeding/underbrush not only helps people walk easily in the woods but contributes to the promotion of biodiversity. Paths allow sunlight into the forest which used to be dark and results in the increase of rare plants such as bamboo lilies and spring orchids, and encourages rare species like the Gifu butterfly (Luehdorfia japonica) to increase.

We believe that these experiences (hands-on learning) together are significant and that not only employees but children, who will inherit the future earth, may understand the necessity for properly maintaining satoyama. Kaga Toshiba Electronics will continue its biodiversity preservation activities to raise the environmental awareness of employees and enhance our contributions to our community.



People who participated in creating paths in the forest on the day of the event





Introduction

Efforts to preserve biodiversity across Japan and the world

Toshiba Semiconductor & Storage Products Company is developing a number of activities aimed at biodiversity preservation on its sites in Japan and around the world. One of these activities is the Ex-Situ Conservation effort that protects and propagates threatened species and endemic plants on our premises and returning them to their original habitats. Many plants are also promoting activities to construct green networks that link surrounding parks, forests and rivers and create a habitable environment for a wide variety of creatures including rare butterflies and birds.

Buzen Toshiba Electronics Sign describing Agehacho no Sato Biotope on premises (Home of Swallow-tailed Butterflies) Diotope on premises

Buzen Toshiba Electronics established an Agehacho no Sato (Home of Swallow-tailed Butterflies) in the biotope of the company' s premise, where employees have created an environment for the growth of swallow-tailed butterflies whose native habitat was Fukuoka Prefecture from long ago. Employees have planted trees to maintain butterflies' life-cycle between egg and adult.

Yokkaichi Operations Forest replenishment by planting 1.5 million trees Intermediate egret

The employees of the Toshiba Group (Including Yokkaichi Operations) and their families have developed activities as a part of "Forest replenishment by planting 1.5 million trees" in Mie Prefecture as well as trimming trees. They also continued to survey river water quality and the observation of intermediate egrets.



Employees conducting fixed point observation of Prenanthes tanakae, Horned (or Devil) Maple and Tedoridokusa (Equisetum x moorei) which are rare plants on the premises in FY2014. Identification of the habitat and these species along with securing and marking (with notice boards) habitat ranges.







Staff from Oita Operations have conducted activities to reintroduce fireflies along the Kitahana River flowing in front of their plant, together with local residents. They started breeding Semisulcospira bensoni, food for fireflies, using the plant effluent in FY2015. They also have cultivated thoroughwort, which is one of the "seven flowers of Autumn" and an endangered species, in the biotope on plant premises, and observed a chestnut tiger butterfly (known as a "butterfly across the sea").

Golden Venus Chub Thoroua

iconduct

eii Operations



In June 2013, Himeji Operations-Semiconductor started breeding and protecting the Golden Venus Chub, the freshwater fish that was extinct in the Ibo River basin, on the biotope on their plant premises for their Ex-Situ Conservation efforts.

They also began cultivating and protecting thoroughwort plants on factory premises and at employees' homes, which had decreased in number rapidly and was designated as an endangered species by Hyogo Prefecture.

Toshiba Semiconductor (Thailand) Co., Ltd. (TS

Brown prinia Flame tree



TST started development of an area to protect rare species and measurements of brown prinias and flame trees, with the aim of preserving ecosystems on its premises.

Iwate Toshiba Electronics

Broad dwarf day-lilies

Expansion of flowerbed





Iwate Toshiba Electronics built a Rare Plant Bed on its premises to protect rare plants and invite rare butterflies. The broad dwarf day-lilies and gooseneck loosestrifes planted as index plants in 2013 have propagated well thanks to these efforts.



Chapter

Environmental Management

Toshiba Group's efforts to preserve the environment and global business activities go hand in hand.

Toshiba Group's environmental vision for 2050 is based on its goal that human life should be in harmony with the globe. We have aimed for harmonious coexistence with the globe throughout the lifecycle of our products from manufacture to use, reuse and recycling. We will continue to make efforts to address global warming, make effective use of resources and manage the use of chemical substances to reduce environmental impact.

The whole TOSHIBA Group participated in the "Toshiba Group Global Environmental Action" in which a total of 200,000 employees participated worldwide in FY2013. In FY2015, we designated June 5, World Environment Day, as the day for Toshiba Group Global Environmental Action, and all Toshiba Group employees at work sites around the world held environmental events over two months between April 1 and June 5.

In line with the Toshiba Group Environmental Vision 2050, Semiconductor & Storage Products Company has promoted business activities for the three categories- improvement in energy efficiency, storage innovation and health care that keeps customers healthy and vigorous- to contribute to the realization of sustainable societies. We have also performed environmental activities as a member of the Toshiba Group. For instance, all worldwide manufacturing sites and North American sales offices participated in the "Toshiba Group Global Environmental Action."



Data and Third Party Verification

• Toshiba Semiconductor & Storage Products Company Group's Environmental Philosophy Statement

Toshiba Semiconductor & Storage Products Company reviews its environmental philosophy every year. In FY2015, we made clear the description of our business and product lines, and we published our revised environmental philosophy (as shown below). The statement of environmental philosophy is posted on our website and is made thoroughly known to employees through environmental education. We will promote our activities while addressing environmental issues as one of our most important management priorities, based on this environmental philosophy.

Statement of Environmental Philosophy of Toshiba Semiconductor & Storage Products Company 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 Semiconductor & Storage Products Company Group is pursuing creation of new values and symbiosis with the Earth. Also Toshiba Semiconductor & Storage Products Company Group contributes to the development of a sustainable society by promoting environmental activities designed to contribute to the realization of a world that is low-carbon, recycling-based and nature-harmonious.

Policy

Toshiba Semiconductor & Storage Products Company Group considers environmental stewardship to be one of management's primary responsibilities, and promotes environmental activities proactively to reduce the environmental impact in the manufacturing process for semiconductor and storage products from the design stage in harmony with economic activities. Toshiba Semiconductor & Storage Products Company Group strives to take the environment into consideration in its business activities such as development, manufacturing, sales, services, and disposal, and aims to contribute to society by supplying products that consider environmental impact, and by realizing energy saving and reduction of resource usage in equipment in which semiconductor devices are installed.

1. Compliance and sustainability

- 1) Toshiba Semiconductor & Storage Products Company Group complies with all applicable laws and regulations, industry guidelines it has endorsed, and its own standards concerning the environment.
- 2) Toshiba Semiconductor & Storage Products Company Group strives to continuously improve and effectively apply its environmental management system and environmental activities through internal audits and reviews.

2. Execution

Toshiba Semiconductor & Storage Products Company Group strives to assess the environmental impact of its business activities including with regard to biodiversity which comprehend development, procurement, manufacturing and sales, set objectives and targets with respect to the reduction of environmental impact, pollution prevention and development of energy saving technologies, and execute proactive environmental measures including the following:

- 1) Striving to create and supply products and services that consider environmental impact through the development of energy-saving and resource-saving designs, and by the restriction of the amounts and types of chemical substances contained in products;
- 2) Promoting reduction of our contribution to global warming by implementing productivity improvements, reducing our emission of greenhouse gases, developing and implementing energy-saving technologies for power systems and manufacturing equipment, along with establishing guidelines to track our progress in these issues;
- 3) Contributing to a recycling-based society through efforts to promote 3R (reduce, reuse, recycle) measures proactively along with improving productivity, developing technologies to reduce, reuse or recycle resources used during our manufacturing processes, and establishing guidelines related to our waste and recycling, while also promoting efficient utilization of natural resources by implementing measures aiming to reduce waste generation and water intake;
- 4) Promoting risk reduction on environmental issues by appropriately restricting and using chemical substances, developing technologies to effectively reduce the use of certain chemical substances, and establishing guidelines for our chemical usage, along with making efforts to reduce the total amount of chemical substances released into the environment and the amount of chemical substances treated;
- 5) In order to preserve biodiversity, Toshiba Semiconductor & Storage Products Company Group strives to assess and mitigate the environmental impact of its business activities on biodiversity and seeks to make a better contribution to society;
- 6) Facilitating mutual understanding with stakeholders by disclosing information through public relations, exhibitions, and mass-media regarding products and technologies from the environmental viewpoint, and collaborating with local communities and society at large;
- 7) Striving to enhance the awareness of employees with respect to environmental management, and considering the environment in business activities and processes throughout the Toshiba Semiconductor & Storage Products Company Group.

Toshiba Semiconductor & Storage Products Company Group discloses this Statement of Environmental Philosophy to the public, promotes awareness of this Statement of Environmental Philosophy throughout Toshiba Semiconductor & Storage Products Company Group, and promotes its business activities according to this Statement.

Revised on 1st October, 2015 Seiichi Mori President, Toshiba Semiconductor & Storage Products Company

Four Elements for Promotion of Environmental Management

As with Toshiba Group, the environmental management of the Semiconductor & Storage Products Company Group comprises four elements: 1) improvement of the environmental management system, 2) evaluation through life cycle assessment (LCA) of the environmental impact of certain products, 3) business activities designed to reduce environmental impact and risks, and 4) environmental communication. Under these elements of environmental management, the Semiconductor & Storage Products Company Group has been promoting proactive environmental activities.



Environmental Management Committee

The Environmental Management Committee is chaired by the Environmental Officer of the Semiconductor & Storage Products Company (Semiconductor & Storage Products Company President) and consists of executives, factory general managers, presidents of domestic manufacturing companies, and other functionaries. The committee handles diverse environmental issues, including reporting activities of business operations, confirming priority measures and ensuring that employees are aware of the Statement of Environmental Philosophy of the Semiconductor & Storage Products Company.

Acquisition of ISO14001 Certification

Semiconductor & Storage Products Company Group has ensured all its manufacturing sites in Japan have obtained ISO14001 certification and hopes that our environmental management projects will continue to bear fruit.

Semiconductor & Storage Products Company Group is proceeding progressively with the acquisition of integrated certification for all its global business processes, and has maintained the certification (at 13 company sites within Japan and seven sites outside Japan ^(note)) in fiscal year 2014. We will continue to strive to control the effects of our organizational activities on the environment, conduct environmental communications in consideration of regional characteristics, preserve ecosystems and develop other effective environmental preservation activities in accordance with our globally structured environmental management system.

For details, such as the certificate numbers of each site, please refer to chapter 5, "Data and Third Party Opinion".

(Note) The scope extends to the main company and all Japan-based consolidated companies (manufacturing and non-manufacturing) and overseas consolidated companies (manufacturing and non-manufacturing) with more than 100 employees.

Compliance with Laws and Risk Management

Toshiba Group has established self-regulation values which are stricter than applicable laws for environmental impact discharges to bodies of water and air borne emissions, and are following our self-imposed rules through individual approaches at each business operation. Internal environmental audits are conducted to identify potential environmental risks, thereby striving to prevent environmental accidents from occurring. Information regarding audit results are shared throughout the group.

Column Measures to prevent hazardous substance discharges at manufacturing sites

All Semiconductor & Storage Products Company Group worksites join in the commitment to prevent hazardous substance discharges. In this column, we introduce some examples of these efforts.

(1) We introduced drainage dikes, double jointed piping and above-ground aerial piping to prevent hazardous chemical substance leaks. (Photos are from Yokkaichi Operations)



Drainage dikes *Red frame indicates a drainage dike. Installation of drainage dikes to prevent leakage of fluids when wastewater is spilled from tanks.

Double joints in piping Installation of double joints in piping to enable checking for leakage of fluids

(2) We have built chemical dikes and pits, scattering prevention sheets, and installed overflow alarms to the chemical solution tanks as countermeasures against leakage of chemicals when receiving chemical fluid from a tanker. (Photos are from lwate Toshiba Electronics)



Chemical storehouse

Environmental Communication

Data and Third Party Verification

system in accordance with ISO 14001. We promote this through compliance with various laws and regulations and through mitigation of environmental impact at work sites, so that these two environmental audit targets are inseparable.

Specific examples of findings from Toshiba Group **Environmental Audit System**

Here are some specific examples of the findings of Toshiba Group Environmental Audit System auditors from audits conducted at Semiconductor & Storage Products Company Group sites in the previous fiscal year. In addition to detailed checks on the audit items at applicable facilities, all sites adopted systematic measures in response to findings and recommendations. Findings are shared horizontally throughout the entire organization using the environmental management information system in order to improve standards of our activities across the group.

Good example (Auditor's comment)

stationery recycle display was created.

At the recycle corner of the recycle center.



Examples of a recommended improvement (Auditor's comment) Improve visibility of the wastewater treatment flow due to unclear signage (The sign was improved in response to the auditor's comment.)

Plant audits at manufacturing sites in Japan



Environmental Training According to Employee Job Functions and Specialties

Semiconductor & Storage Products Company Group is conducting environmental education for all employees in order to make them thoroughly understand environmental management and to raise awareness of environmental activities.

Semiconductor & Storage Products Company Group uses e-learning software for general environmental training of its employees. For new employees, engineers, and sales representatives, face-to-face training is also provided. The training through e-learning is designed for all employees, resulting in improved understanding of the environmental management system of the Toshiba Semiconductor & Storage Products Company Group.

We also train auditors for Toshiba Group Environmental Audit System based on the internal auditor training program of the Toshiba Group. Potential candidates for the training program for site environment auditors must be above the rank of section manager. They sit written tests and undergo plant training on the applicable environmental laws, ISO environmental management systems, internally structured policy, rules, and other key areas.

We will continue to educate all employees and review content to enhance employees' environmental awareness.

Each business operation also reduces environmental risk at facilities with various measures such as the installation of double containment systems in facilities that use pipes and storage tanks for chemical agents. During FY2014, no group member was in breach of any environmental law nor subject to any fine or other penalty related to the environment.

Implementation of Environmental Audit at **Toshiba Group**

Since 1993, Toshiba Group has been conducting regular environmental audits covering most sites of Toshiba and its Group companies through its proprietary Toshiba Group Environmental Audit System. This system is based on the "3 Zen (all) approach," which promotes management of all facilities in all areas by all employees; the "3 Gen (actual) approach," which emphasizes measurement of the actual situation of actual items at actual plants; and the "visual control" approach, which includes, for example, the practice of labeling every piece of equipment to indicate its proper status so that it can be checked easily in the field for compliance.

Audits at manufacturing sites, called "site environment audits," are executed at all manufacturing sites in Japan and outside Japan.

The audit is conducted for two days by an audit team that consists of qualified auditors from within the company. The sites receive audits on the following items: 1) environmental management, 2) legal compliance and 3) plant management, as displayed in the figure below. The plant audit, in particular, is conducted at 19 facilities and includes checks of waste water treatment equipment, recycling, and chemicals warehouses and facilities that use chemicals, as well as training for handling emergency situations. Compliance, measurement control, 4S (Seiri, Seiton, Seiketsu, and Seisou, meaning in English: sorting (removing unnecessary things), straightening (keeping things orderly and available as needed), sanitation, and sweeping (maintaining a clean workplace)), and employee education are also strictly monitored. Any audited site which receives instructions for improvement, if any, must implement corrective measures within six months.

Aiming to improve the environmental performance by deploying the Toshiba Group Environmental Audit System, the Toshiba Semiconductor & Storage Products Company Group has structured the environmental management



Current Status of Environmental Impact

The Semiconductor & Storage Products Company Group strives to improve environmental efficiency by analyzing its impact on the environment, utilizing the environmental management information system.

The status of Semiconductor & Storage Products Company Group's environmental impact in FY2014 is described below. Please refer to chapter 3 "Reduction of Environmental Impact of Business Activities" regarding some of our specific initiatives currently ongoing in our efforts to reduce the impact of our business activities on the environment.



(*1)TJ: tera (1012) joule

(*2) Water recycling rate: (required feed water - water supplied) / (required feed water) X 100 (%). (as defined by JEITA (Japan Electronics and Information Technology Industries Association)) (*3) Electrical CO₂ emissions coefficient are used to calculate energy-originated CO₂ emissions (in Japan, 5.54 t-CO₂/10,000 kWh in FY2014). Overseas electricity is based on the GHG Protocol. (*4) PRTR: Pollutant Release and Transfer Register Law of Japan

Toshiba Group conducts centralized control of various environmental performance data through the environmental management information system. Each site inputs its data on energy, wastes, and other relevant information into the central server, and the accumulated data is then utilized to gauge the environmental impact of all business activities, create action plans, and support the management decisions of the environmental management system. Toshiba Group also publicly discloses the environmental performance information to stakeholders both inside and outside of the Company through the website, environmental reports, and other media. With the aim of enhancing reliability, we receive third party certification by Lloyd's Register Quality Assurance Ltd. ^(note) for our environmental performance data; their verification of the environmental performance data in FY2014 showed no significant errors in the data.

(Note) A certifying organization that conducts inspection, examination and certification of environment and other systems. (URL: http://www.lrqa.or.jp/)

Data and Third Party Verification Environme

Targets and Outcomes

Toshiba Group has enhanced its environmental activity level by expanding action items and numbers of involved worksites in several stages since the first environmental action plan established in 1993. Today, we are making efforts to be an enterprise that contributes to the sustainable lifestyles of individuals and society based on the fifth environmental action plan, which has its term from FY2012 to FY2015.

Semiconductor & Storage Products Company Group also set performance goals based on the Toshiba Group's environmental action plan, implemented measures for higher energy efficiency and waste water/exhaust treatment, and continues to make efforts to reduce impact on the environment in the entire lifecycle of product designing, manufacturing and sales. In this chapter, we will introduce the achievements of FY2014 plan and our plans after FY2015.

Achievement of FY2014 plan by the Toshiba Semiconductor & Storage Products Company Group

Semiconductor & Storage Products Company achieved the FY2014 plan for all items shown below in the table. For reduction of energy originated CO₂ emissions, for instance, Oita Operations and Yokkaichi Operations developed interdepartmental energy conservation measures/policies and achieved their targets. We also achieved the targets for the reduction of the total amount of waste generation and waste reduction through developing the 3R policy (Reduce, Reuse and Recycle). We also achieved the targets for reduction of handled amount of chemical substances and reduction of chemical substances waste by continuous promotion for reduction of use of chemical substances in processes.

| ltem | Indicator | FY2014 | | | |
|---|---|--|--------------------------------|------------|--|
| nem | indicator | Plan | Result | Evaluation | |
| Reduction of energy-originated CO ₂ emissions ^{*1} | Total emissions | 1,868 thousand ton or less | 1,692 thousand ton | 0 | |
| Reductions of total emissions of certain greenhouse gases, excluding CO_2^{*2} | Total emissions | 290 thousand ton or less | 276 thousand ton | 0 | |
| Emissions of chemical substances to air and water (total amount) | Total emissions | 790 ton or less | 716 ton | 0 | |
| Chemical substances handled (total amount)*4 | Total handled amount | 53.3 thousand ton or less | 46.8 thousand ton | 0 | |
| Total waste amount ^{*3} | Total amount of waste generated minus amount of valuable waste | 40.8 thousand ton or less | 39.9 thousand ton | 0 | |
| Reduction in the total amount of waste generated *4 | Total waste generated | 89.4 thousand ton or less | 78.2 thousand ton | 0 | |
| Reduction of water intake | Amount of water intake | 32,000 thousand m ³ or less | 29,900 thousand m ³ | 0 | |
| Biodiversity preservation activities | Preservation and measurement of objective species at all targeted sites | All sites | All sites | 0 | |
| Supplementary notes: (O:Achieved target) | | | | | |

Supplementary notes:

*1: Electrical CO₂ emissions coefficient are used to calculate energy-originated CO₂ emissions (in Japan, 5.54 t- CO₂/10,000 kWh in FY2014). Overseas electricity is based on the GHG Protocol. *2: CF4, C₂Fe, C₂Fe, C₄Fe, CHF₃, SFe, and NF₃

*3: This is equal to defference between the total waste generated and amount of waste reclaimed and sold.

*4: We changed these targets in FY2014 due to production fluctuation.

Plans Post FY2015 by the Semiconductor & Storage Products Company Group

The following is the environmental performance plans post FY2015 by the Semiconductor & Storage Products Company Group. The expected figures for environmental performance in FY2017 show an increased impact in most items in comparison with FY2015, but this is because we expect expansion of production capabilities of products that will be affected by the market expansion for smart phones, tablet PCs, etc. in recent years.

As production capabilities expand, impact on the environment will increase, but we will endeavor to reduce our impact on the environment by effective energy conservation investment to new lines, higher efficiency in raw material usage such as chemical substances and promotion of resource recycling of wastes.

| | | FY2015 | FY2016 | FY2017 |
|--|--|---|---|---|
| Item | Indicator | Plan | Plan | Plan |
| Reduction of energy-originated CO ₂ emissions *1 | Total emissions | 1,997 thousand ton or less | 2,148 thousand ton or less | 2,310 thousand ton or less |
| Reductions of total emissions of certain greenhouse gases, excluding CO_2^{*2} | Total emissions | 464 thousand ton or less | 554 thousand ton or less | 594 thousand ton or less |
| Emissions of chemical substances to air and water (total amount) | Total emissions | 1,040 ton or less | 1,201 ton or less | 1,379 ton or less |
| Chemical substances handled (total amount) | Total handled amount | 54.1 thousand ton or less | 59.2 thousand ton or less | 63.3 thousand ton or less |
| Total waste amount *3 | Total amount of waste generated minus amount of valuable waste | 47.1 thousand ton or less | 56.1 thousand ton or less | 63.4 thousand ton or less |
| Reduction in the total amount of waste generated | Total waste generated | 90.4 thousand ton or less | 106.5 thousand ton or less | 121.8 thousand ton or less |
| Reduction of water intake | Amount of water intake | 35,800 thousand m ³ or less | 43,700 thousand m ³ or less | 47,000 thousand m ³ or less |
| Biodiversity Preservation Activity | Number of objective sites (measurement and preservation activities) | 7 sites | 8 sites | 8 sites |

Supplementary notes:

*1: Electrical CO₂ emissions coefficient are used to calculate energy-originated CO₂ emissions (in Japan, 5.54 t-CO₂/10,000 kWh after FY2015). Overseas electricity is based on the GHG Protocol. *2: GHG calculation method: Objects of "Law Concerning the Promotion of the Measures to Cope with Global Warming" are based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. GWP: based on IPCC Fourth Assessment Report.

*3: This is equal to defference between the total waste generated and amount of waste reclaimed and sold.

Reduction of Environmental Impact of Products

Chapter

Reduction of Environmental Impact of Products

We respond to society's increase in energy demand by improving energy conservation and efficiency of devices for society.

As communication technologies have advanced in recent years, products and systems which utilize ICT (Information and Communication Technology) such as cloud computing have become widespread, and energy demand has rapidly increased. In order to respond to the increase of global energy needs, it is vital to promote power conservation and efficient equipment and systems. Semiconductor & Storage Products Company offers semiconductors and storage devices for various applications for home appliances to storage systems and social infrastructure, and is confident of contributing to the mitigation of energy demand throughout society.

This chapter introduces our efforts to promote LCA (Life Cycle Assessment) calculation, arrangements for product compliance with environmental laws and regulations, and cases of products that contribute to energy consumption of equipment.

We calculate the environmental impact of our products and strive to take effective countermeasures

Semiconductor & Storage Products Company Group calculates the impact of our products on the environment by LCA (life cycle assessment). We pursue best practices for all our devices in all phases of their lifecycles, from manufacturing to usage, and endeavor to achieve an effective reduction of their impact on the environment.

The right-hand chart illustrates our approximation of comparative environmental impact for the manufacturing and use of semiconductor and storage product groups, as shown by our LCA calculations converted to CO₂ emissions.

The vertical axis shows the sum of CO₂ contained in raw materials and emitted during the production stage, including procurement. The horizontal axis shows the sum of the emissions in the usage stage, including disposal or recycling, taking into account average conditions of use and lifespan of the mounted devices.

For example, it is assumed in the chart that memory cards will be used in digital cameras; in this application, these products are characterized by a comparatively high ratio of CO₂ emitted during their production, mainly caused by clean room requirements. For this product group, the highest returns can be expected by implementing enhanced energy conservation measures during their manufacturing process. Overall energy saving can be achieved by promoting

energy savings during the manufacturing stage through development of micro-fabrication technologies enabling us to fabricate many chips from one wafer.

Meanwhile, the chart assumes that metal-oxide semiconductor field-effect transistors (MOSFETs) will be used in powersupply adapters of personal computers. Since the majority of CO₂ emissions caused by such products occur during use, it is more effective to enhance the efficiency of product performance than to implement measures for reducing CO₂ emissions during the products' raw material or production stages.



LCA for Evaluation of Environmental Impact throughout Product Life Cycle

Life cycle assessment (LCA) is a method of evaluating a product by totaling the amount of material and energy input in a series of processes such as collection of resources for product materials, production of materials, manufacturing of products, transportation, distribution

Whole Flow of LCA



and disposal, and the amount of the substances released that impact the environment. (please see following chart.) Toshiba Semiconductor & Storage Products Company Group completed calculations of the LCA for sample products from nearly all of our product groups available for sale. The results are being used in studies and analyses on the environmental impact of our products.

Examples of Measures using LCA to Reduce Environmental Impact



> Examples of products in which procedures to reduce environmental impact have been employed

(1) Paperless conference system (prototype) using TransferJet^{TM (*1)} technology

In recent years, people's attention has been focused on sharing pictures and videos between electronic devices such as smartphones and personal computers using a close proximity wireless transfer technology "TransferJetTM". As one of its main features, TransferJetTM enables easy transfer of data up to 375 Mbps (effective throughput) just by placing two devices in which applicable adapters are installed close to each other. Since the transmission distance is only 3 cm, it can ensure security without being affected by the surrounding environment.

Toshiba Semiconductor & Storage Products Company has developed and proposed a prototype paperless conference system that achieves simple delivery of conference materials by using this TransferJet[™] technology without depending upon a network environment.

For example, if you install a personal computer for delivery of conference materials at the entrance or on the reception desk of the conference room, participants can download the conference materials at high speed simply by putting their tablets or other applicable devices next to the personal computer with conference materials. They can also take electronic notes on the materials received in a secure environment. Traditionally, the impact of a network environment has been an impediment to disseminating paperless information. This technology, however, would make materials paperless and thus contribute to the reduction of resource use and carbon dioxide (CO₂) emissions.

(*1) TransferJetTM: Wireless technology for high-speed data transfer by placing two devices in close proximity. The effective maximum data throughput is 375 Mbps, and a one minute high-definition video content can be transferred in about 3 seconds. The communication distance limited to 3 cm minimizes the risk of unintended unauthorized access to data and provides reliable security.





②2.5-inch HDD products providing massive 3 TB storage capacity with greatly enhanced energy consumption efficiency

Toshiba Semiconductor & Storage Products Company has commercialized "MQ03ABB300" which is a 2.5-inch HDD (Hard Disk Drive) with the industry's first-class (*1) 3 TB (*2) storage capacity, and started commercial production in FY2015. This product has achieved a massive 3 TB storage capacity by attaining a recording density as high as 750 GB^(*2) per magnetic disk with the vertical magnetic recording technology and installing four disks in a 2.5-inch drive measuring only 15 mm in height. Consequently, this product has achieved a 50% increase in storage capacity and an approx. 50% improvement in energy consumption efficiency (*3) compared with our conventional product "MQ01ABB200" providing a 2 TB storage capacity. (0.000234 for this product and 0.000350 for the conventional product.) This product is suitable for USB interface (external) portable HDD because of its large storage capacity. This

small device providing a large storage capacity is capable of recording a large amount of data, such as photos and videos.

(*1) Compared with other 2.5-inch HDD products. Surveyed by Toshiba as of January 2015.

(*2) Storage capacity: Toshiba defines a megabyte (MB) as 1,000,000 bytes, a gigabyte (GB) as 1,000,000,000 bytes and a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of $1GB = 2^{\infty} = 1,073,741.824$ bytes and therefore shows less storage capacity. Available

storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

(*3) Energy Consumption Efficiency: Energy consumption efficiency is calculated based on power consumption measured in the method defined by the Energy Saving Act of Japan, divided by storage capacity as defined by the same Act. Environmental Management

Environmental efforts relating to Green Procurement and Controlling Chemical Substances in Products

Promoting Green Procurement Initiatives

In line with its green procurement guidelines, Toshiba Semiconductor & Storage Products Company Group requests suppliers to provide information related to the "Procurement Prohibited Substances" and "Procurement Controlled Substances" that we have designated, their system for meeting our environmental requirements, and supporting documents and materials. Every revision of our guidelines is followed by a meeting or other means for explanation to ensure our green procurement initiatives are fully understood by the suppliers. Since 2009, more effective and closer collaboration with them in green procurement has been facilitated by providing information and materials through the Internet.

Our environmental focus starts from the product design and engineering stages.

Regulations controlling chemical substances in products have been or will soon be enforced in many countries. They include some major regulations that are relevant to Toshiba Semiconductor & Storage Products Company Group, such as the EU's RoHS Directive, End of Life Vehicles (ELV) Directive, and Packaging and Packaging Waste Directive. Similar regulations to EU RoHS also went into effect in China and South Korea. Since June 2007, the EU has enforced REACH, which requires evaluation and registration of all chemical substances manufactured in or imported into the European Union. It also requires clarifying and understanding of chemical substances contained in products and provision of information for customers.

Semiconductor and storage products are used in an extremely wide range of applications, such as in electrical/ electronic equipment, control systems, and vehicles. Hence, the control of information on chemical substances which comprise the products is an important factor for product quality assurance. The Toshiba Semiconductor & Storage Products Company Group has designated certain chemicals used by the Group as "Procurement Prohibited Substances" and "Procurement Controlled Substances" in order to either prohibit or restrict content in products in accordance with applicable laws and regulations of each country.

Further Environmental Consideration in Physical Distribution

Toshiba Semiconductor & Storage Products Company Group also takes various measures to promote environmental management in the physical distribution stages.

Pursuant to Japan's Law Concerning the Rational Use of Energy revised in April 2006, the Toshiba Semiconductor &

We procure components and raw materials through green procurement activities that reflect our prohibitions or restrictions on Controlled Substances. In addition, we investigate the content percentages of chemical substances that might give significant impact to the environment and endeavor to select parts and raw materials with a lower impact on the environment. This information is stored in the database, and used to inform the authorization of new procurement, to determine when currently procured materials should be replaced, and to develop products (see the figure below). We offer information to our customers through proactive utilization of Joint Article Management Promotion (JAMP) and other common formats advocated in the industry.



At the stages of product design and engineering, the Toshiba Semiconductor & Storage Products Company Group conducts assessments of the environmental impact of products as a part of its engineering process (please refer to the chart in next page). Information on chemical substances contained in new raw materials and products is reviewed to identify the existence or use of "Procurement Prohibited Substances" and "Procurement Controlled Substances" as designated by the Toshiba Semiconductor & Storage Products Company Group.

Storage Products Company Group endeavors to reduce CO₂ emissions from all distribution phases.

The table below shows the actual CO_2 emissions created by the Semiconductor & Storage Products Company Group's physical distribution of products delivered in Japan, and the improvement rate of CO_2 emissions with reference to FY2010. We have proactively produced results by our optimization efforts of distributing routes.

| | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 |
|---|--------|--------|--------|--------|--------|
| CO2 emissions associated with product delivery logistics (Unit: ton) $^{\scriptscriptstyle(^{e_1})}$ | 2,145 | 1,585 | 1,262 | 973 | 618 |
| Improvement rate of CO_2 emission with reference to FY2010 $^{\rm (^{12})}$ (per unit of output normalized by deflator) | 100% | 76% | 49% | 44% | 24% |

(*1) The object of the CO₂ emissions is associated with products delivery logistics in Japan.

(*2) "Improvement rate of CO₂ emissions with reference to FY2010" indicates the ratio of CO₂ emissions associated with products transportation per unit of output normalize by deflator each year compared with FY2010, expressed as a percentage. (Baseline FY2010: 100%)

Toshiba Semiconductor & Storage Products Company Group's approach regarding Controlled Substances

Japanese laws and regulations

- Law concerning the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures,
- Law concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
- Industrial Safety and Health Law,
- Law on Prohibition of Chemical Weapons and Regulation, etc., of Special Chemicals,
- The law concerning reporting, etc. of the release to the environment of specific chemical substances and promoting improvement in their management
- Water Pollution Control Law
- Waste Management and Public Cleansing Act

JAMP.....Joint Article Management Promotion-consortium

- Laws and regulations outside Japan.
 "RoHS"-type regulations enacted in several countries/regions, WEEE
 - Directive of EU, ELV Directive of EU, REACH, ErP Directive, etc.
- Customers' requests and JAMP specified substances
- ► Toshiba's regulated substances:
 - Substances related to Toshiba green procurement for semiconductor and storage products,
 - Toshiba Semiconductor & Storage Products Company's regulated substances

Environmental consideration at the design and development stage

- When materials, processes, equipment, or technological developments new to Semiconductor & Storage
 Products Company are introduced, environmental assessments of the chemicals are performed, including evaluation of the chemicals used, emitted, or contained, the handling of chemicals, and their reactions, discharges, and byproducts as applicable.
- At the design/development phase of each new class of products, the chemical substances contained in products are carefully assessed.
- In performing its impact assessments, Semiconductor & Storage Products Group aims to promote:
- The selection of materials that do not contain prohibited substances, and
- Process technology development, design, and development of semiconductor and storage products with less environmental impact, as measured by Toshiba's LCA calculations and controlled substances guidelines, than existing Toshiba semiconductor and storage products.

Verification of the Controlled Substances Contained in Products



Reduction of Environmental Impact of Business Activities



We promote energy and resource conservation activities in manufacturing process through interdepartmental efforts and activities.

Many companies are making responsible efforts to reduce environmental impact in their corporate activities. We are also proactively promoting energy and resource conservation activities in our individual production activities through organized efforts and activities participated in by multiple departments.

This chapter introduces our efforts to reduce environmental impact and preserve biodiversity in manufacturing processes, including the specific measures and policies taken at factories.

We promote reduction of CO₂ emission by systematic, interdepartmental energy conservation activities

When we manufacture semiconductor and storage products, we use large amounts of energy for air-conditioning in clean rooms, etc. Therefore, Semiconductor & Storage Products Company Group started an interdepartmental project in FY2004 to reduce emissions of greenhouse gases. In addition to the conventional individual power conservation measures at the power management and facility level, we requested production engineers and tool manufacturers to participate in this project to develop a broad range of activities.

Furthermore in FY2014, energy conservation diagnosis was conducted at Toshiba Information Equipment (Philippines), Inc. (TIP). Consultants identified about 20 areas where potential reductions may be made that are expected to reduce CO₂ emissions by 5,400 tons annually. Results will be used for future energy conservation measures and policies.

The CO₂ emission quantity last fiscal year was around 1.69 million tons. Emission is expected to increase as we boost production capabilities and start up new lines, but we will continue to reduce it through investment and various power conservation measures.

Amount of CO₂ emissions per year (1000 tons)



Electrical CO₂ emissions coefficient are used to calculate energy-originated CO₂ emissions (in Japan, 5.54 t-CO₂/10,000 kWh in FY2014). Overseas electricity is based on the GHG Protocol.

(Data covers all worldwide manufacturing sites and certain non-manufacturing sites)

Reduction of greenhouse gases including PFCs are also actively pursued

We use perfluorocompounds (PFCs) and other greenhouse gases in the manufacturing processes of semiconductors.

The World Semiconductor Council (WSC), an international semiconductor industry group, selected seven kinds of greenhouse gases (CF₄, C₂F₆, C₃F₈, C₄F₈, CHF₃, SF₆ and NF₃) as the subjects for reduction and has a target to reduce total emission of those gases in CY2010 to 90% of the amount emitted in CY1995 (a 10% reduction).

After achieving this target in 2010, we made efforts to further reduce greenhouse gases.

Last year, we introduced measures to improve production processes and process conditions. Total PFC gas emissions for the Semiconductor & Storage Products Company Group as a whole in 2014, amounted to 280,000 tons – CO_2 (vs. 1995: 41% reduction). Through these and future efforts, we will continue to reduce greenhouse gases.

Transition of amount of PFC emissions (1000ton-CO₂, %)



(Data covers all manufacturing sites in and out of Japan)

Column 1

We focus on effective use of valuable resources.

Semiconductor & Storage Products Company Group takes a company-wide approach to achieve the reduction in waste generated and make a contribution to resource recycling in order to move toward a recycling-oriented society.

Proactive 3R (Reduce, Reuse, Recycle) activities are performed at local sites in an attempt to effectively use resources. For example, used chemicals and metals are thoroughly sorted and recycled using higher level resource recycling technologies in plants across Japan. Overseas sites implemented a unique program to recycle waste metal in association with external partners. Through such efforts, the Semiconductor & Storage Products Company achieved an excellent level of final waste disposal rate of 0.03% in FY2014. We aim to reduce total waste generation to a maximum of 90.4 thousand tons in FY2015. At the same time, we aim to reduce the amount of waste, calculated by subtracting the amount of valuable substances from the total waste generated, to 47.1 thousand tons or less in FY2015.

In the future, we will continue to develop environmental activities focused on 3R to promote the effective use of resources.

Total amount of waste generated, and final waste disposal rate (1000 tons, %)



The amount of waste as an index on the reduction target, which is the amount remaining after valuable materials are subtracted from the total amount of waste generated.

(Data covers all worldwide manufacturing sites and certain non-manufacturing sites)

General manager and Angel Unit patrol plant to check on energy conservation awareness and to discover new ways for further energy conservation.

At Oita Operations, the plant general manager and the Angel Unit conduct a patrol to check energy conservation awareness during June, Environment Month established by Japanese government.

The plant general manager checks the work sites for energy conservation awareness from the perspective of the whole plant. The Angel Unit, comprised of female employees, is active in raising employee awareness and importance of energy conservation. The unit also proposes a variety of energy saving ideas leading to improvements. The plant general manager grants "Angel Unit Certification "Good Idea!"" awards to work sites who promote energy conservation and interesting ideas leading to conservation. This is one of the methods to raise employee motivation at work sites. They will continue performing conservation patrols aimed at further employee environmental awareness.





Measures to reduce discharge of chemical substances

Various chemical substances are used in the manufacturing processes of semiconductor and storage products. After using these chemical substances, our company minimizes discharges to water systems and emissions to the atmosphere by collecting chemical substances and treating or removing hazardous elements.

Measures have been taken to reduce amounts of chemical substances in use as well as amounts of discharge and emissions during the manufacturing processes. Toshiba Corporation targeted 40 chemical substances (including 19 PRTR* substances) for discharge management in FY2014. In future, we expect an increase in the amount of discharges and emissions as production capacity increases, however our efforts to reduce emissions will continue.

*PRTR: Japan's Pollutant Release and Transfer Register Act.

Amount of chemical substances handled and discharged (ton)



(Data covers all manufacturing sites in and out of Japan)

Efficient use of finite water resources is also targeted.

Developing countries, particularly in Asia, have limited access to water resources, and the scarcity of potable water is becoming increasingly severe globally.

The Semiconductor & Storage Products Company Group recognizes scarcity of water resources as a social issue and is working on reduction of water intake amount and the prevention of water contamination.

Total amount of water intake in FY2014 was 29.9 million m³ in volume, and 26.5% in recycling rate^{*}.

Amount of water intake (1000m³)



(Data covers all worldwide manufacturing sites and certain non-manufacturing sites) * Water recycling rate: (required feed water - water supplied) / (required feed water) X 100 (%). (as defined by JEITA (Japan Electronics and Information Technology Industries Association))



Himeji Operations-Semiconductor has been committed to minimizing resource consumption with process improvements designed to promote high-efficiency manufacturing. In the case of mold resins - used in products-and abrasive materials used for manufacturing - consumption is relatively higher than for other materials. Operations using these materials were re-evaluated and resulted in reduced resource consumption. Mold resins that protect semiconductor chips and wires are formed in a mold heated to high temperatures, which causes very slight burrs in the mold resins. After raising the standard precision for frame thicknesses, restrained burr generation reduced as well as resin consumption. The size of abrasive particles used to remove burrs in mold resins were decreased allowing for more efficient burr removal. The result was that efficiency was increased and overall consumption of abrasive material was reduced.

Statement

Koudai Kishida

Transistor Section IV, Semiconductor Manufacturing Department I, Himeji Operations-Semiconductor



I am engaged in the product technology of power semiconductors which mainly convert electricity into force or thermal energy, among discrete semiconductors. Since power semiconductors require use of larger parts and materials over general semiconductors, we have to consider "effective use of resources". To reduce the consumption of mold resins, we discovered a way to create optimum frame thickness. We had difficulty finding abrasive materials with the optimum particle size necessary to reduce the consumption of abrasive materials. After repeated attempts, we found the most optimum conditions and pressure for projecting abrasives and the mixing ratio with water. We would like to further remove waste in the manufacturing stage, increase efficiency, and decrease our environmental impact.

Column 3 Yokkaichi Operations efforts to reduce resource use

This column introduces the measure that led to the drastic reduction of chemical substances used in the conventional semiconductor manufacturing process.

A large amount of sulfuric acid used for cleaning in the semiconductor manufacturing process posed a recycling problem. Yokkaichi Operations reviewed conventional processes, and as a result, were able to reduce the amount of liquid chemicals and developed a technology that allowed recycling.

This plant was also able to reduce the use of dilute hydrochloric acid traditionally used in effluent treatment by reusing the discharged sulfuric acid as a pH adjuster for effluent treatment. These measures enabled us to reduce the use of liquid chemicals by approx. 4,000 tons annually throughout the plant. Ongoing efforts to promote technologies under the 3Rs that reduce our environmental impact will be made.



Efforts for the preservation of the natural environment and biodiversity developed at manufacturing sites both in Japan and overseas

The Semiconductor & Storage Products Company Group conducts activities for the preservation of natural environments at worksites both in Japan and overseas. These activities include tree planting in cooperation with

< Toshiba Group Biodiversity Guidelines URL >

http://www.toshiba.co.jp/env/en/vision/biodiversity.htm#anchorLink5

local government administrations and other groups in the community, as well as unique efforts overseas to preserve nature.

The Toshiba Group adopted its guidelines for biodiversity in September 2009. The Semiconductor & Storage Products Company Group also promotes the preservation of biodiversity in accordance with these guidelines.

Toshiba Group Biodiversity Guidelines

-Basic policy-

In order to conserve biodiversity and promote the sustainable use of biological resources that constitute biodiversity, Toshiba Group will implement the following measures:

- Analysis of the impact of our business activities on biodiversity
- Reduction of the impact on biodiversity and promotion of the sustainable use of resources through our business
 operations
- Development of an organizational framework to promote these measures

-Specific actions-

- 1. We will take appropriate measures to protect ecosystems when building factories or relocating facilities.
- 2. We will collaborate with local public agencies and private organizations.
- 3. We will continue our commitment to corporate citizenship activities as members of a sustainable society.
- 4. We will assess the impact and effects of environmental measures on various aspects of the environment, including biodiversity.
- 5. We will promote initiatives for the conservation of biodiversity in supply chains, including the mining of resources.
- 6. We will assess the impact of substance emissions and the consumption of resources required for our business activities.
- 7. We will study the structures and systems of nature and make technological contributions to society in accordance with the characteristics of our businesses.

Environmental Communication

Chapter

Environmental Communication

We strive to have our activities recognized in society and raise employees' environmental awareness through environmental communication activities at our sites in Japan and overseas.

The Toshiba Group's Fifth Environmental Action Plan has as its aim to expand environmental communication in the effort to connect people around the world. Semiconductor & Storage Products Company has promoted a variety of environmental communications at its sites in Japan and overseas through activities like participating in the Toshiba Group Global Environmental Action conducted during the period between April and early June, providing stakeholders outside the company with environmental information, and participating in various environmental exhibitions. The objectives of these activities are to raise employees' environmental awareness and to promote environmental practices in the course of their regular work, and finally to have outside stakeholders understand our activities.

Examples of environmental communication activities in Japan and overseas:

Semiconductor & Storage Products Company continues active environmental communication with local residents at our business sites. This section introduces environmental communication efforts in line with regional concerns and needs in Japan and overseas.

Environmental communication activities at Oita Operations: Let's Eco with Smile!

Toshiba Oita Operations conducted activities under the "Let's Eco with Smile! (Oita) 2015" from April 1 to the middle of May with the target of having many people enjoy participating in environmental activities. It was kicked off with picking up trash in local areas. A total of 258 participants, composed of employees and their families, formed three teams for three courses and local heritage sites, temples, and other areas. The event included a true-false quiz about environmental issues, beanbag toss, jumping through a hoop contest, a tug-of-war and other games on a large play ground. The participants warmed up the activities through the communication with each other. In departmental events, each department held events like "Niko Niko Eco Activity for each person to propose two ideas ("Niko" has two meanings; two and smile)," "Exchange of environmental information at sites to which they were outsourced" and "Tour of environmental facilities," as the result of collecting ideas from department members under the theme of "Let's Eco with Smile! (Oita)." Activities were recorded on video and shown in all the departments. The result was finding joy in activities leading to raising employees' environmental awareness.



Data and Third Party Verification

Eco drives practical training at Himeji Operations-Semiconductor







Those people responsible for overall environmental preservation at Himeji Operations-Semiconductor delivered handbills with 10 key points and a quiz on reducing the environmental impact of driving to employees at two plant service gates during the Toshiba Group Global Environmental Action 2015, aimed at raising "eco-driving" awareness. A total of 204 employees took part in the quiz, and winners selected in a drawing from among those who answered all questions correctly received "eco-driving" goods.

They also borrowed an "eco-driving" simulator from the local government, and 45 staff members including those responsible for environmental preservation as well as department heads received "eco-driving" evaluations, from which they learned how they could improve fuel efficiency.

Environmental Exhibition held at Buzen Toshiba Electronics Corporation



Buzen Toshiba Electronics Corporation has proactively conducted activities to raise employees' environmental awareness. A "Joint Environmental Exhibition with Neighboring Companies" in May 2015 was one such activity. The Corporation asked five neighboring companies to exhibit environmental ideas, for example, water-saving flushing equipment, LED lighting fixtures, HEMS(*) systems, a hydrogen station, and fuel-cell

vehicles. The objective of this exhibition was to introduce eco-conscious lifestyle choices to employees for both their professional and private lives. Employees who visited the exhibition enthusiastically asked questions about the effects of eco products and how to use them at home, and came away with a better understanding. Buzen Toshiba Electronics Corporation will continue to raise employees' environmental awareness through various activities that affect both work and home lifestyles. (*) Home Energy Management System

Employee Statement

Environment and Facility Operating Section of Production Control Department, Buzen Toshiba Electronics Corporation



Akihiro Etsusaki

I am in charge of environmental activities at the Buzen Toshiba Electronics Corporation. I think long and hard on how to raise my colleagues' environmental awareness when planning activities. My top priority in creating activities is to make them fun for participants. We work hard at not repeating the same activities every year, and so I am always adding new activities to keep events lively and enjoyable as well as creating a learning experience. A recent environmental exhibition was held with neighboring companies that highlighted fuel-cell vehicles. I was glad to see that my efforts were rewarded when I saw many more people in attendance compared to last year. I look forward to creating new events that lead to raising employees' environmental awareness.

Toshiba Semiconductor (Thailand) Co., Ltd., mangrove management



Toshiba Semiconductor (Thailand) Co., Ltd., (TST), carried out a mangrove seedling event at the Thong Pong Bay in Chonburi State on May 13 during the Toshiba Group Global Environmental Action 2015 plan. The main objectives of this activity were biodiversity preservation and raising employees' environmental awareness. On that day, 42 TST employees and 6 local volunteers participated in re-seedling approximately 200 mangrove seedlings.

We believe that this activity will help protect species in the ecosystem and mangroves along the coastline of Thailand.

Regional community support activities of Toshiba Information Equipment (Philippines), Inc.

Toshiba Information Equipment (Philippines), Inc. (TIP) has supported the local community through a variety of activities.

In recent years, Panay Island, Philippines, was hit and heavily damaged by strong typhoons. TIP took part in activities to replenish mangroves in which the local government and residents have participated. TIP believes that they helped make an impact on the preservation of marine plants and animals by participating in the activity that had planted approximately 10,000 seedlings along the typhoondevastated coastline.

They are also producing products made of natural materials and selling them in the company under CSR (corporate social responsibility) related activities. For instance, they are producing candleholders using Capiz shells, traditional hand woven handbags and mats named Banig, and unique bamboo speakers that enhance sounds of smartphones placed in them.

These local specialty products were mainly produced by craftsmen living in the typhoon-hit area, and are an example of how TIP is supporting them from a CSR perspective.

TIP would also like to raise environmental awareness to promote nature conservation on a company-wide basis through the above-mentioned activities.



Planting of mangrove seedlings

Examples of products made of natural materials



Bamboo speakers Banig handbags

Candleholders made of Capiz shells

Employee

Justine Ann Ebora Factory Planning and Engineering Department Engineer, Toshiba Information Equipment (Philippines), Inc.



Toshiba Information Equipment (Philippines), Inc. (TIP) continuously strengthens employees' consciousness about environmental protection and preservation. In alignment to this, TIP gave high regards on the conservation efforts of our biodiversity. As an employee, I had the opportunity to explore, experience, and appreciate species that exist inside TIP. Aside from activities in our local area, we are also given chances to go to areas outside of our local region to participate in land and aquatic species conservation.

TIP's initiative and enthusiasm for biodiversity and partnership with government and local experts has resulted in TIP being recognized as a benchmark by various companies and organizations. I am privileged to be part of an environmentally friendly company.

Environmental Management

Data and Third Party Verification

Various Communication Activities

Communication with Customers

Through participation in various seminars and in exhibitions such as Toshiba Group Environmental Exhibition and Eco-Products Exhibition, we promote active communication with customers.





Eco-Products Exhibition in Japan (FY2014)

Semiconductor & Storage Company's corner at the Toshiba Group's Environmental Exhibition 2014

Environmental advertisement

The environmental activities of the Semiconductor & Storage Products Company Group were made public through newspapers, websites and other media in FY2014 as well.



An advertisement with an image representing biodiversity efforts by Yokkaichi Operations in FY2014 (Appeared on professional journal cover)

Environmental information on the website of the Semiconductor & Storage ProductsCompany



We post information of environmental management systems, performance data and various other environmental information on the website of the Semiconductor & Storage Products Company.



We also post manufacturing sites' environmental reports that describe their environmental efforts and performance information on the website of the Semiconductor & Storage Products Company.

Manufacturing sites' Environmental Report

Results of commendations for environmental activities awarded to the Semiconductor & Storage Products Company Group

The following is a list of major awards Semiconductor & Storage Products Company won in FY2014. We received high evaluations on our environmental activities in Japan and abroad, e.g., "Awarding of Reduce, Reuse, Recycle Promotion Manager (Yokkaichi Operations: Chairman's Prize) in FY2014 and Mother Nature Award in Philippines. (The Mother Nature Award alone was awarded outside FY2014; our company was recognized in April 2015.)

| Award Titles | Award Winning Items | Evaluated Points | Evaluated Entity |
|--|--|--|---|
| Environmental Award for Model Cases relevant to Environmental Measures | Minister for the Environment Award | Introduced original management system that implements evaluation of drainage treatment prior to chemical substances procurement that realized both risk and cost reduction of waste-water treatment. | Toshiba Corp. Semiconductor & Storage Products Company Oita Operations |
| Prize for Eco-Office Encouragement in Kansai Region, FY2014 | Grand Prize for Eco-Office Encouragement in Kansai Region | To review the segregation rule of plastic waste and promote our environmental communication activities | Toshiba Corp. Semiconductor & Storage Products Company Himeji Operations- Semiconductor |
| Biodiversity Action Award 2014 | Winning a prize | Our efforts to breed and preserve Hemigrammocypris Rasborella | Toshiba Corp. Semiconductor & Storage Products Company Himeji Operations- Semiconductor |
| The Awards for Resource-Recycling Technologies and Systems | Minister Prize of Economic, Trade and Industry | Our efforts to build-up the system for recycling calcium fluoride from HF drain | Toshiba Corp. Semiconductor & Storage Products Company Yokkaichi Operations, Asahi Glass Co., Ltd., Organo Corporation |
| Awarding of Reduce, Reuse, Recycle Promotion Manager, FY2014 | Chairman's Award | Addressing efficient resource recycling along with NAND flash memory production | Toshiba Corp. Semiconductor & Storage Products Company Yokkaichi Operations |
| Eco Action Awards | Winning a prize | To address global warming by our activities including energy saving and 3R (reduce, reuse, recycle) efforts | Iwate Toshiba Electronics Co., Ltd. |
| The Merit Awards for Enterprises Contributing to Regional Society | Winning a prize | We've continuously held the annual "environmental reporting event associated with local community" from FY2005. | lwate Toshiba Electronics Co., Ltd. |
| Mother Nature Award | Winning a prize | The company has designed and successfully implemented sound Environment Management System (EMS) and Environment Management Programs (EMP), possess advanced track records of community-related activities including the biodiversity conservation initiatives. | Toshiba Information Equipment (Philippines), Inc. |
| Outstanding Pollution Control Officer Award from the Laguna Lake Development Authority | Winning a prize | Official commendation of personnel responsible for management of the quality of wastewater discharged into Lake Laguna (including technologies and local communication) | Toshiba Information Equipment (Philippines), Inc. |

Reduction of Environmental Impact of Business Activities

Data and Third Party Verification

Data and Third Party Verification



Acquisition of ISO14001 certification

All manufacturing plants and particular sales offices of the Semiconductor & Storage Products Company in Japan and overseas have obtained ISO 14001 certification.

Semiconductor & Storage Products Company promotes the acquisition of integrated certifications that cover throughout its global business processes. Discrete sites in the Semiconductor & Storage Products Company Group, the Company and 13 sites in Japan and seven sites overseas ^(note 1), maintained certification in August 2015. We will continue to control the effect of our organizational activities on the environment to the minimum, conduct environmental communication in consideration of regional characteristics, preserve ecosystem and develop other effective environmental preservation activities in accordance with the globally structured environmental management system.

| Name of the organization (as of December, 2015) | Certified body | Registration date | Approval certificate No. |
|---|------------------------------|-------------------|----------------------------|
| Toshiba Corporation Semiconductor & Storage Products Company Head Office District (Head Office Bldg. and Sales Office Sites) | | 1996/2/2 | EC98J2014 |
| Toshiba Corporation Yokkaichi Operations (Including Toshiba Memory Advanced Package Corporation) | | | |
| Toshiba Corporation Oita Operations | | | |
| Toshiba Corporation Microelectronics Center | - | | |
| Toshiba Corporation Himeji Operations-Semiconductor | - | | |
| Iwate Toshiba Electronics Co., Ltd. | - | | |
| Buzen Toshiba Electronics Corporation | - | | |
| Himeji Toshiba E.P. Corporation | - | | |
| Kaga Toshiba Electronics Co., Ltd. | | | |
| Toshiba Device Corporation | JACO ^(*2) | | |
| Toshiba Discrete Semiconductor Technology Corporation | - | | |
| Toshiba Microelectronics Corporation | - | | |
| Toshiba Memory Systems Co., Ltd. | - | | |
| NuFlare Technology, Inc. | - | | |
| Toshiba Semiconductor (Thailand) Co., Ltd. | - | | |
| Toshiba Electronics Europe GmbH. | | | |
| Toshiba Electronics Asia, Ltd. | - | | |
| Toshiba Electronics (China) Co., Ltd. | - | | |
| Toshiba Electronics Asia (Singapore) Pte. Ltd. | | | |
| Toshiba Electronic Components Taiwan Corporation | | | |
| Toshiba Information Equipment (Philippines), Inc. | | | |
| Toshiba America Electronic Components, Inc. | DNV GL AS | 2010/6/29 | 80416-2010-AE- USA-ANAB |
| Toshiba Electronics Korea Corporation | Korean Standards Association | 2007/3/14 | EMS-0472 |

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

(*2) JACO: Japan Audit and Certification Organization for Environment and Quality

Third party assessment of environmental performance data

The Toshiba Group consigns third party verification to Lloyd's Register Quality Assurance Ltd. (LRQA)* with the objective of enhancement of reliability of environmental performance data. We received verifications on global data for data collection, aggregation and internal audit processes, accuracy of aggregation results, etc. in the results of FY2014.

* A certifying organization that conducts inspection, examination and certification of environment and other systems. (URL: http://www.lrqa.or.jp/)



<Observations and Findings>

Observations and findings, made during the assurance engagement, are:

Stakeholder Inclusivity:

We are not aware of any key stakeholder or group that has been excluded from TOSHIBA's stakeholder engagement process. TOSHIBA's report has been informed by these stakeholder views and expectations.

Materiality:

We are not aware of any material environmental issues that have been excluded from the report. TOSHIBA's management approach has been structured to improve their performance associated with these material environmental issues. These processes are not biased by company management.

Responsiveness:

TOSHIBA has processes in place to respond to all stakeholders. TOSHIBA has an active presence and role in numerous forums and associations developing policies, particularly for its sector.

Based on LRQA's approach nothing has come to our attention that would cause us to believe that TOSHIBA has not:

- prepared their report in conformance with TOSHIBA's in-house reporting procedures nor excluded any material environmental issues
- disclosed reliable performance data and information for the selected datasets.

Environmental Management

ata and Third Party Verificat

Third-party opinion

One Akiyama

President, Integrex Inc.

1. Positive findings

This report has two major sections: "Energy conservation efforts in the Company's products that support the social infrastructure (Their efforts to promote energy savings of products)" and "Technologies and efforts in factories and manufacturing processes that considered reduction of environmental impact (Business activities that address environmental impact)," reporting the Company's diversified range of environmental activities. It has a consistency, and its organization is reader-friendly.

Admirable points throughout the report are the Company's meticulous considerations and efforts for the environment both on a site- and on a product-level, and its sharing information in interdepartmental projects and extending it to other plants and sites.

In the "Introduction" chapter, the Report introduces the cases of two plants' efforts in relation to the Company's "aims to preserve biodiversity across Japan and the world." Employees as a whole are promoting the activities required for ecosystem protection in areas where factories are located, in collaboration with local communities, which can be evaluated as meticulous activities on a regional level.

Meticulousness is also demonstrated in the reduction of environmental impact of products as well. Semiconductor & Storage Products Company (hereinafter the "Company") made a life cycle assessment of samples of almost all categories of its wide-ranging products and systematically visualized the environmental impacts during manufacturing and use of each product. Accordingly, it has deployed measures and policies that bring about the maximum effects product-by-product, such as those aimed at energy conservation in the manufacturing process, and products that require energy savings in the designing stage.

In reducing environmental impact of manufacturing (business activities), the Company has not only developed interdepartmental activities, such as power, facility, engineering and manufacturing levels, but also inter-organizational activities in which device manufacturers have participated for more than 10 years and have achieved successful results. We can say that the efforts in this field are extremely critical for the Company, since the amount of energy-originated CO₂ emissions during manufacturing covers 60% of the entire Toshiba Group.

As regards to environmental communications, the Company has deepened relationships with local communities at its sites in Japan and overseas and continues environmental activities with employees and people from communities. These efforts are believed to raise employees' environmental awareness as well as leading to environmental practices in the workplace.

2. Areas for improvement

If the Company has any list that summarizes the specific annual targets and environmental action plans, I hope that they will be included in the report. Sharing any list related to this fiscal year's targets, activity achievements/evaluations, the following fiscal year's targets, and other information, employees would like to share with the company, and the PDCA (Plan, Do, Check and Action) cycle, these can lead to future activities.

As for the second point, the planned values of environmental performance for and after FY2015 exceed the results in FY2014 in accordance with the expected expansion of production due to market expansion. Even if such increases in the planned values are estimated in expectation of production expansion, I expect further energy conservation of manufacturing processes and enhancement of utilization efficiency of raw materials, and hope that the Company will continuously strive to reduce environmental impact.

Lastly, Toshiba Corporation reported in September 2015 that it had made amendments to the settlement of the past seven years starting FY2008 due to accounting irregularities. Without the society's trust in the corporate group, neither the environmental activities nor performance data described in the environmental reports would be received with confidence. I hope that the Company will renew its awareness of "how the company should be in the true sense" and share it with other members of the Toshiba Group while each and every employee has a determined will and works in good faith

<Profile> One Akiyama

President, Integrex Inc.

Graduated from the Faculty of Economics at Keio University. After working as a fixed income trader in foreign bonds at a U.S. securities firm, she founded the company Integrex Inc., in 2001 for the promotion of socially responsible investment (SRI) and corporate social responsibility (CSR) and became its president. She is also a co-representative of the Japan Sustainable Investment Forum (JSIF), an NPO. She holds MS in finance.

Integrex Inc.

Integrex is an independent research company specializing in research and evaluation for integrity-based socially responsible investments (SRI) with no capital relationship with any financial institutions or business corporation. It also provides a variety of support for companies trying to fulfill corporate social responsibility (CSR), including internal reporting hotline services for companies and other organizations and CSR/ compliance awareness surveys on employees, group companies, and client companies in Japan and overseas, from the neutral and third-party standpoint.

Upon receiving the third-party opinion

We received a third-party opinion from Ms. Akiyama, President of Integrex Inc., on this year's environmental report.

In this report, she highly evaluated the company's meticulous considerations for the environment both on a site- and product-level, and its interdepartmental activities to reduce environmental impact.

She also noted our collaborations with the regional stakeholders and measures and policies to raise employees' environmental awareness, including the biodiversity preservation introduced in the "Introduction" article and our environmental communication activities efforts in consideration of regional conditions.

She pointed out that our making lists that summarize specific annual targets and action plans that we would like to study in future we should devise an easy-to-follow format in line with the PDCA perspective. We intend to promote a broad range of environmental conservation activities in good faith to gain the credit of our stakeholders in society.

Editor's postscript

Thank you for reading the Environmental Report 2015.

In the "Introduction" chapter of this report, we included an article reporting in an easy-to-understand way our biodiversity preservation efforts actively underway at manufacturing sites in Japan and overseas.

For a third-party opinion, we asked Ms. Akiyama, President of Integrex Inc., an external CSR expert to give us her valuable opinion that we could use in future improvements.

We will transmit information of our environmental activities through environmental reports and other means to our stakeholders. If you have any questions about our activities or the content of this report, kindly contact us through the following URL.

http://toshiba.semicon-storage.com/ap-en/company/environmental-activities.html

Productivity Improvement Planning Div. Environment Planning Promotion Group, Toshiba Semiconductor & Storage Products Company

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2015

- If you have any inquiries, please contact us at the following website. http://www.semicon.toshiba.co.jp/eng/index.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 Semiconductor & Storage Products Company Group reserves the right to revise the content of this Environmental Report without notice.
- The information contained herein is subject to change without notice.

TOSHIBA CORPORATION

Semiconductor & Storage Products Company Website: http://toshiba.semicon-storage.com/ ECE0004I