

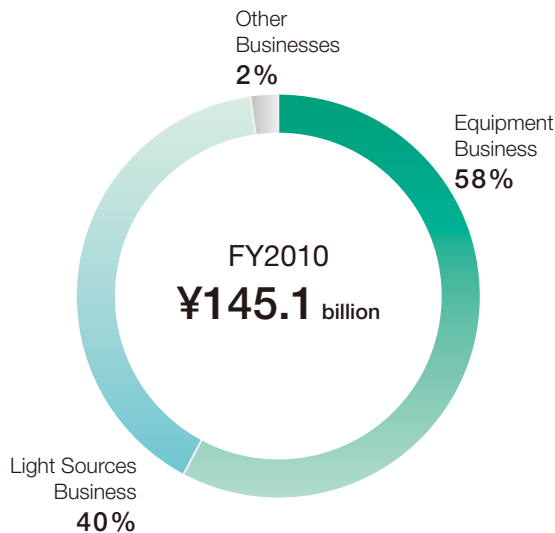
# SUSTAINABILITY REPORT 2011



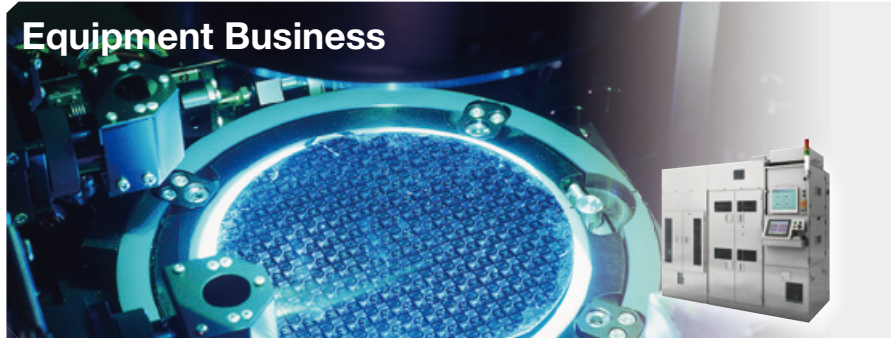
# USHIO Group at a Glance

USHIO INC. began operations as a manufacturer of industrial light sources in 1964. The company has since evolved into a “light creator” that provides light units, equipment, and systems as well as “light solutions” through developing new light sources and developing and applying proprietary optical technology.

## Net Sales



## Segments



## Corporate Profile

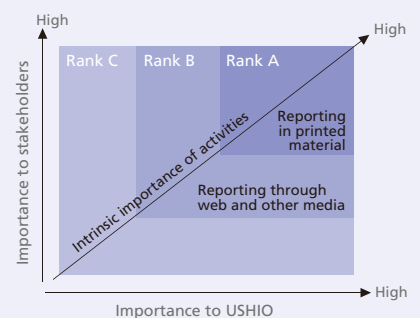
As of March 31, 2011

<b>Company Name</b>	USHIO INC.
<b>Head Office</b>	2-6-1, Otemachi, Chiyoda-ku, Tokyo, Japan
<b>Established</b>	March 1964
<b>Paid-In Capital</b>	¥19,556,326,316
<b>Employees</b>	5,269 (Group-wide)

## Our Goals for this Sustainability Report

In planning USHIO’s Sustainability Report 2011, we thought about what kind of stakeholders would be taking the time to read it, and what information we should provide for those stakeholders. We decided to report different information in the booklet and online versions to suit each respective format. We also added a glossary of specialist terminology at the bottom of each page. This report was written in our own format based on: Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, Generation 3 (GRI G3), and the Environmental Report Guidelines (Fiscal Year 2007 Version) from the Japanese Ministry of the Environment.

## Approach to Materiality at the USHIO Group



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## Sub-segments and Main Products Key Strengths

### Visual image equipment

- Digital projectors for cinemas
- Digital projectors for non-cinema applications (control rooms, simulators, signage, virtual reality, and others)

· Global market share for digital cinema projectors **45%**

### Optical equipment

- Optical equipment for manufacturing semi-conductors, flat panel displays and electronic components (exposure systems, photo-cleaning units, photocuring systems, and others)
- UV phototherapy devices and other medical equipment
- EUV light sources for next-generation semiconductor lithography

· Global market share for UV curing equipment for bonding LCD panels **70%**  
· Global market share for step-and-repeat projection lithography tool for flip chip substrates **95%**  
· Global market share for roll to roll projection lithography tool for TAB/COF **100%**

### Discharge lamps

- UV lamps for manufacturing semiconductors, flat panel displays, and electronic components
- A range of lamps and industrial LEDs for use in cinema projectors, data projectors, office equipment, illumination, and other optical equipment

· Global market share for UV lamps for lithography **75%**  
· Global market share for surface cleaning equipment for LCD panels **85%**  
· Global market share for lamps for cinema projectors **55%**  
· Global market share for lamps for document scanners **70%**

### Halogen lamps

- For use in office equipment
- For illumination applications (commercial facilities, stage and studio lighting, specialized lighting, and others)
- Halogen heaters

· Global market share for lamps for fixing toners **65%**

### Machinery for industrial uses and others

- Plastic forming applications, peripheral machinery
- Industrial machinery and systems

### • Use of Web site

In addition to preparing the Sustainability Report 2011 based on the approaches outlined on the left, we provide more comprehensive and detailed reporting on our Web site. Please refer to the USHIO corporate Web site for details at the link shown below.

[Web http://www.ushio.co.jp/en/csr/index.html](http://www.ushio.co.jp/en/csr/index.html)

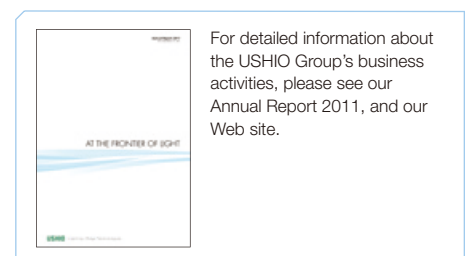
### • Scope of Report

Time Period: This report basically covers FY2010 (April 1, 2010 to March 31, 2011), but also includes some continuing activities from before FY2010, and some activities in FY2011.

Organizations: All USHIO business sites and group companies worldwide

### • The Tri-colored Leaf—A Symbol of the USHIO Group's Activities

The Tri-colored Leaf that appears on the cover of this report is designed to symbolize the three primary colors of light in a budding leaf motif that symbolizes the natural environment. At the same time, the design represents three elements of sustainable management—financial viability (red), social responsibility (blue), and regard for the environment (green). Our goal is to grow each of these leaves through steady, daily activities, until they produce a powerful trunk.



For detailed information about the USHIO Group's business activities, please see our Annual Report 2011, and our Web site.

# Top Message



In March 2011, Japan was struck by an earthquake and tsunami of unprecedented size. I would like to start by extending my deepest sympathies to those who were affected by the Great East Japan Earthquake, and offering my prayers for their swift recovery.

USHIO responded to the earthquake by immediately establishing a Disaster Response Headquarters and working as a group to gather information and respond as needed. Fortunately, no employees in Japan were injured or suffered any physical losses, and Group companies were quickly able to recover despite slight damage sustained by production facilities. From April onward, USHIO established an Operation Countermeasures Committee under the president, to make a stronger framework for ongoing cooperation and links in operations company-wide.

This disaster has caused industries to reflect long and hard. They have been made to see that many of the capacitors, ICs and other high-use, core electrical components used widely around the world are made in factories located in the Tohoku area; more so than they had thought. Even one missing part can prevent the assembly of a product that uses hundreds or thousands of parts. To sustain society, we must be able to provide products and services under any circumstances. This is the reason that companies exist, and it is one of their most important responsibilities to society. In this sense, the aftermath of the disaster has been a painful reminder to corporate management of the importance of managing risk.

## <Ushio's measures in response to the Great East Japan Earthquake>

- Donated relief funds through the Japanese Red Cross Society and other organizations
- Supported recovery of suppliers in disaster-affected areas and secured relief support items (sent drinking water and relief funds, dispatched delivery trucks, etc.)
- Supported recovery activities for customers in disaster-affected areas and established a product delivery system in line with recovery status.
- Established an Emergency Power-Saving Committee to respond to rolling blackouts due to supply shortages, revised production shifts, reorganized production bases, and implemented measures to reduce fixed power consumption.

USHIO has many products that have a high market share. Now more than ever, people are asking us about how we raise efficiency in daily operations, and how we implement risk management for rare but significant events.

### CSR Derives from Everyday Operations

The USHIO Group has set out the 2020 Environmental Vision. In fiscal 2010, we formulated our Third Environmental Action Plan and took steps to help preserve the environment. At the same time, we moved quickly to establish a framework to strengthen our corporate social responsibility (CSR) activities in general. From fiscal 2011 we formulated and published a CSR Action Plan to clarify our focus areas for CSR initiatives. We believe that creation of this plan will help our existing CSR activities penetrate further into the daily operations of every part of the Group, thereby promoting CSR even further.

In fiscal 2010 especially, the overseas portion of our net sales surpassed 70%, and the number of overseas employees in the Group reached 3,041 persons, versus 2,228 in Japan (USHIO and group companies in Japan). We will work to strengthen interaction and links across the Group and to match operations to diverse regions and personnel. We will also ensure that compliance is rigorously upheld throughout the Group.

In October 2010, USHIO formally declared its support for the United Nations Global Compact of principles concerning human rights, labor standards, the environment, and anti-corruption. As the spheres of corporate activity become global, we believe it is important that the scope of CSR initiatives also expands internationally.

### USHIO Group's Medium-term Management Plan and CSR

The USHIO Group's medium-term management plan, known as the Medium-Term Vision, sets out targets for net sales, operating income and other financial measures. It also lists six themes for key business strategies. These themes set out a clear direction for USHIO to develop a sustainable business. They show how USHIO can contribute to the creation of an abundant society by providing products and technological solutions through its light-related businesses.

### Steady Development of the Digital Cinema Business

For example, the USHIO Group has the top share of the global market for cinema projectors, and we are vigorously promoting a shift from conventional film projectors to digital cinema projectors.

A reel of cinema film for a single movie has a diameter of around 1.5 meters, containing several kilometers of film. Numerous copies of this film must be made and distributed to cinemas throughout the world, requiring significant transport-related use of petroleum resources. By contrast, the digital format allows a movie to be contained in a single small hard disk—and in some cases, even this is not needed as the movie can also be distributed via satellite communication. Moreover, in addition to energy- and resource-saving benefits, digital cinema projectors are also capable of rendering finer quality images, 3-D and other advantages to enrich the cinema experience. As such, they are rapidly being adopted at cinemas in mature regions such as Japan and the U.S.

### Solid-state Light Sources Business

White LEDs for common everyday lighting needs are drawing attention recently as an environmentally friendly technology that saves electricity. The adoption of solid-state light sources in projectors has proved to be a challenge however, as projectors require an unusually powerful light source. To meet this challenge, and hasten the development of a powerful laser light source for use in cinema projectors, USHIO made U.S. semiconductor laser manufacturer Necsel Intellectual Property, Inc. into a wholly owned subsidiary.

A great benefit of lasers is their long operating life. Another advantage is their potential ability to produce more vivid images. In the near future, USHIO plans to lead the industry by introducing a laser light source for projectors on to the market. The entire USHIO Group is working together towards this goal.



### Promoting Environmentally Friendly Businesses

USHIO's environmental initiatives take two forms: reducing impact on the environment at factories, and making environmentally responsible products. Since its inception, USHIO has worked to produce light more efficiently and make light sources with longer replacement cycles. At present, the equipment business has grown to account for around 60% of our operations, and our environmentally-focused R&D activities cover not only light sources, but the power supply and all other components that they need. Another project under development is modules for manufacturing solar cells. Looking ahead, we believe there are even wider environment-related applications for light, such as safe, reliable chemical-free processes for disinfection and water purification.

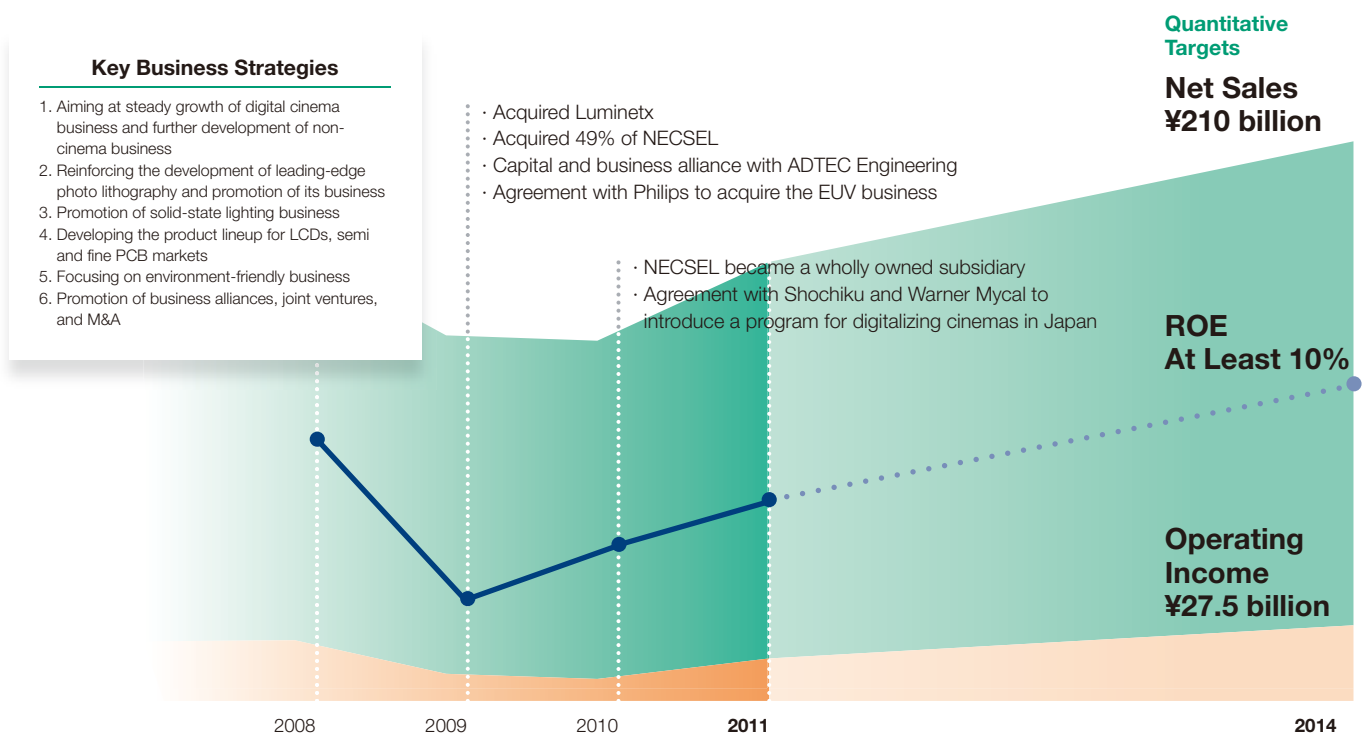
Another example of further application is in using artificial light both to grow plants and to control weeds. This exciting field is explored in the feature section of this report. We hope that readers will find it informative and interesting.

We aim to continue to provide satisfaction and hope to all of our stakeholders. To this end USHIO will continue to seek new fields where it can make a unique contribution.



Shiro Sugata  
President and Chief Executive Officer

### USHIO's Vision for the Three Years to March 31, 2014



# Nurturing Plants with Light

## How Agriculture Becomes a Science

### Business activities that help protect the environment

Global population growth is creating problems involving food, water and the environment. Health care systems are needed to care for aging populations. Energy problems are emerging as more people worldwide enjoy better living standards. Dealing with these problems will demand extensive and well-planned initiatives.

USHIO believes that “light” is one pathway to solving these problems. We have many years of experience in the use of a broad array of optical technologies. Using our accumulated expertise, we believe we can make an even greater contribution to society as a manufacturer of industrial light sources, medical devices and environmentally responsible devices.

USHIO is currently participating in more than 30 projects in Japan and overseas that bring together private-sector, public-sector, academic, venture capital and other partners in a cooperative framework to help create a recycling-based society. We are using this collaboration to transform new types of light into viable products and businesses. All manufacturers today have environmental obligations including energy conservation, the 3Rs,\* the efficient use of materials, developing “green” products and other activities. But our commitment to social responsibility goes farther. We will utilize the full potential of light to create a better future and innovative ideas for new types of light. We strongly believe that this is the mission of USHIO as a manufacturer that specializes in light.

\* The three R's are Reduce, Reuse and Recycle. They are key words in the drive to achieve a recycling-based society that places a minimal burden on the environment.



## New Industries Originating From Agriculture

# Nurturing Plants with Light

Today, we can purchase a rich variety of fresh fruits and vegetables almost any time of the year. Since agriculture shifted from open fields to greenhouses and other enclosed environments in the 1970s, farmers have been able to meet the needs of consumers for fresh produce throughout the year.

Today, consumer needs involving food have advanced even further to include preventive health care. In response, the agricultural sector has started to create “plant factories” that grow produce with both nutritional and medicinal benefits.

### Our constantly evolving perception of food

People have always perceived food as a source of calories, minerals, vitamins and other vital nutrients. But since the 1970s, there has been a growing demand for food that tastes better and makes life more enjoyable and fulfilling. In Japan, one result was demand for a year-round supply of fresh vegetables that are normally seasonal and cannot be imported. The need for these vegetables grew steadily since the 1970s, mainly in the restaurant industry. Today, about 80% of Japan’s tomatoes, cucumbers, bell peppers and other vegetables are grown in artificial environments to maintain a steady supply all year round.

### The transformation of agriculture

Seeking ways to grow vegetables and other agricultural products continuously and efficiently has been a major theme of agricultural research for many years. The goal is to grow these plants even in locations and seasons where they do not survive in nature. Traditional agriculture relies on experience and intuition to grow crops outdoors where they are vulnerable to changes in the weather. But agriculture today uses high-tech equipment and environmental control systems to grow plants scientifically. Only in this way can the needs of consumers be satisfied. To advance to the next step, research is currently focused on two new themes. One is “plant factories” that use artificial light. The other is “functional vegetables” that incorporate antibiotics, vaccines or other substances that enable the prevention of health problems through food.





## Using Light to Control Plant Growth



Eiji Goto,  
Professor of Agriculture  
Chiba University

My research involving the relationship between light and plants has revealed that light is the most important factor that influences how plants grow. My goal is to accumulate detailed data about light and functional plants. For example, I want to know how much 310nm wavelength light is needed to have a molokheiya plant produce a particular amount of chlorogen, which is a type of polyphenol. My research is greatly assisted by LEDs, which generate light at precise wavelengths. Incidentally, growing rice requires light with 10 times the intensity of ordinary artificial light. That means more heat is produced along with the light. I asked USHIO LIGHTING, INC. to develop an LED unit for growing rice. They created a unit that has fewer LEDs and uses an advanced heat removal system. Agriculture is not the only beneficiary of USHIO's breakthrough. The new LED unit also holds much potential for speeding up the use of LED illumination systems in all types of primary industries.

### The shared origins of functional vegetables and medicinal foods

Many common foods contain well-known substances that promote good health. For instance, tomatoes have lycopene, tea has catechin and blueberries have anthocyanin. New substances are still being discovered. One example is lutein, which is found in large quantities in turnip leaf and spinach. A powerful antioxidant, lutein is believed to help prevent eye problems like cataracts and macular degeneration. Basic research in fields like genetic engineering may produce more breakthroughs. One current research theme involves incorporating an influenza vaccine in rice. This "edible vaccine" would eliminate the need for injections. Agricultural products with both nutritional and medicinal value have many advantages. They can be consumed safely by people of all ages, and effectively provide vaccines in unsanitary regions without the use of syringes. The same technology can also be used to place vaccines and drugs in animal feed. Overall, there is much potential for preventing infectious diseases and other hazards.

### Light and plant factories

How do you grow functional vegetables? The main requirement is an environment that is not affected by the weather, regional characteristics or other aspects of the natural environment. Plant factories with completely artificial environments are the answer. These facilities can use a number of advantages to provide a consistent supply of fruits and vegetables: no agricultural chemicals are needed because the factory shuts out insects and diseases; harvest volumes and times can be accurately predicted; and furthermore, only the minimum amounts of water and fertilizer are required. Another advantage is the ability to artificially control temperature, humidity, air currents, the level of CO<sub>2</sub> and other items that determine the growing environment. With this flexibility, growers can produce crops that have added value by consistently including desired properties and functions. Critical to creating this added value is the most important factor affecting the growth of plants: light.



## Light gives life to plants

# How Agriculture Becomes a Science

Light—Essential to the survival of plants and animals

We tend to take the immense benefits that light provides for granted.

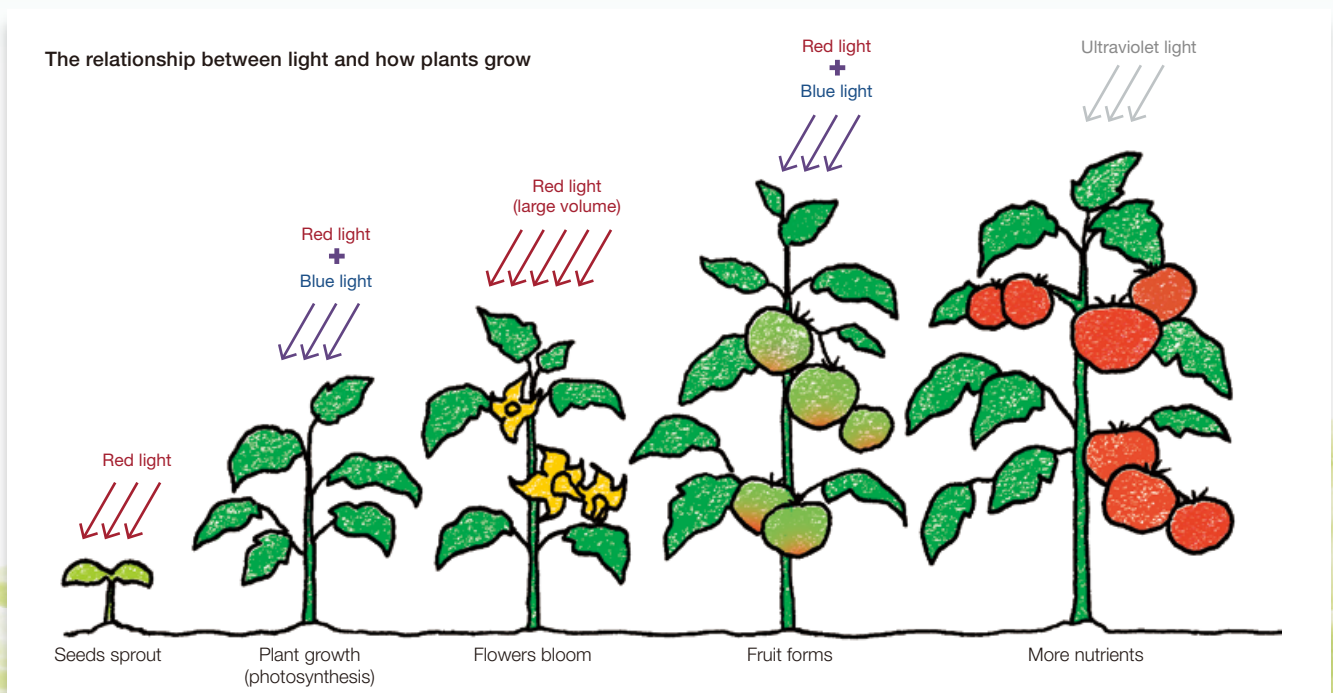
But we still have much to learn about the properties of light.

### Do plants “see” light?

Seeds sprout in the spring. Then plants grow rapidly in the warmth of summer and produce flowers. In the autumn, we harvest fruit and other end results of this growth. How do plants know when the time is right for each step? Plants are subject to fluctuations in temperature, humidity and other environmental conditions. The most importance of these is the wavelength of light, and the duration of exposure. Red light is needed for seeds to sprout. For growth (photosynthesis), plants require red and blue light. Flowers bloom when there is even more red light along with long hours of exposure. Then fruit, grain or other types of food emerge under red and blue light. Ultraviolet light is needed to make agricultural products even more nutritious. Plants time their growth to precisely match seasonal changes in the wavelengths of light and hours of sunlight. Clearly, plants have some type of “eye” that detects the wavelengths and the duration of exposure to light. This enables them to control the timing of their growth.

### Growing plants with light from USHIO

Skillful use of this “eye” allows growing plants to achieve specific objectives. For instance, photosynthesis produces sugar when a plant’s chlorophyll is exposed to light with a wavelength of 400–700nm. The amount of sugar is almost directly proportional to the intensity of the light. We can use this knowledge to expose plants to light of a specific frequency during each phase of its development. Growing plants in this manner will open the way to producing functional vegetables while controlling cultivation times and the amount of nutrients they contain.



## Weed Control Using Light



Masaru Ogasawara,  
Professor of Agriculture  
Utsunomiya University

Plastic greenhouses used to grow tomatoes in Japan are often surrounded by horsetail, (*equisetum arvense*) one of the most difficult weeds to eradicate even with herbicides. I asked USHIO to make a UV device to test how UV rays affect about 20 varieties of weeds. My experiments succeeded in demonstrating that horsetail grows hardly at all when exposed to UV light. Next, I want USHIO to design a UV device that requires no special power unit by using solar cells or other power sources. The unit should be effective in only a short time and consume as little electricity as possible. Many researchers are studying weeds in Europe and the U.S. But no one is using light. Our research team wants to be at the forefront of progress in the field of weed control.

One example is the use of rice as an “edible vaccine.” Scientists want to know what kind of compounds will develop in rice with variations in the timing, wavelengths, and length of exposure to light. Research has been performed with a variety of light sources. To support studies using LEDs, USHIO partnered with Chiba University to develop a high-output LED unit to enable grain to be grown under artificial light for the first time.\* The unit produces two types of light. Red LEDs generate the 660nm wavelength light needed for photosynthesis. Blue LEDs provide the light required for morphogenesis, the biological process in which a plant forms its distinctive structure. USHIO combined these LEDs with its exclusive technologies for dissipating heat, mounting LEDs and creating optical designs. Using this device facilitates very efficient tests to ascertain how each wavelength of light generated by LEDs influences the growth of plants. Chiba University is already using USHIO’s innovative LED unit to perform this research.

\* First time in the world for grain (as of October 31, 2010)

### Weeds vs. UV light

In other research, scientists are studying ways to use light to intentionally prevent plants from growing. Currently, herbicides and manual labor are the only ways to remove weeds. Although modern herbicides are safe to use, there are concerns about the considerable detrimental effect on the environment. Furthermore, herbicides are not suitable for parks, along highways and railroads, and in many other locations. Removing these weeds by hand is a costly task for local governments and companies. The solution is to use ultraviolet rays to prevent weeds from growing.

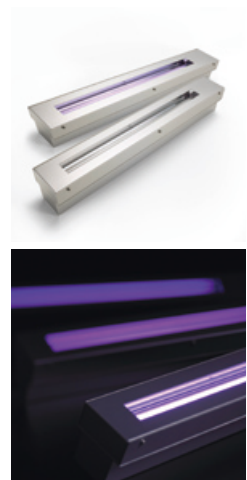
Plants grow as chlorophyll uses the energy in light to synthesize adenosine triphosphate (ATP). For red light, plants take in only the amount of light that they can use. But when exposed to a type of UV rays that normally do not reach the Earth’s surface, the energy in this light combines with oxygen to produce reactive oxygen. The resulting oxidation causes the plant to die. At Utsunomiya University, scientists are using USHIO’s UV-XEFL® mercury-free light source to expose plants briefly to UV radiation. The aims are to stop the growth of vines and prevent flowers from blooming and pollinating. This research may lead to new ways to block growth and the production of seeds by unwanted plants.

### USHIO’s vision

As you can see, there are still many unexplored frontiers in the field of light. Agriculture is just one of many areas where progress in the use of light can yield major benefits. USHIO has much expertise in optical technologies cultivated in industrial fields like semiconductors, LCDs and electronic components. We are determined to extend this know-how to other areas. Air and water pollution, optical medical care and diagnoses, and new energy sources are just a few of the many fields where we are applying our expertise. We will continue to take on these global challenges, finding innovative solutions that use light.



Rice is bathed in light from USHIO’s high-output LED units. This trial is the first time in the world that grain has been grown under artificial light.

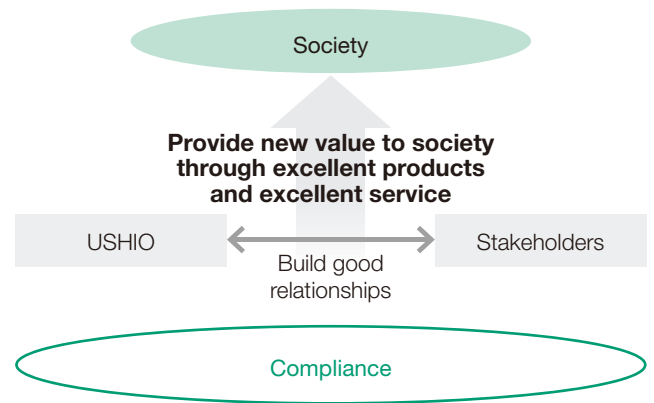


The mercury-free UV-XEFL® is the world’s first UV light source that permits selection of a particular wavelength.

# USHIO's CSR

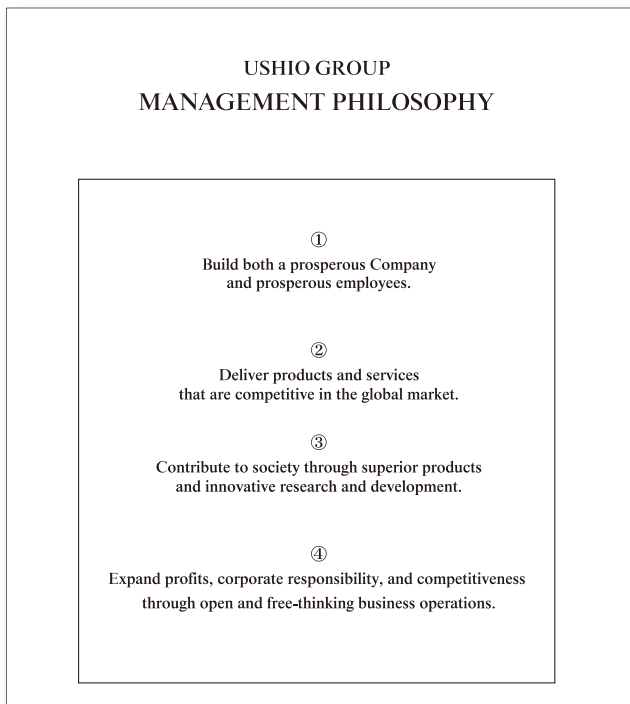
## Approach to Corporate Social Responsibility (CSR)

We consider it natural that a corporate citizen should observe laws and regulations, contribute to society, and take steps to protect the environment. These are the foundations of all corporate activity. In addition, a corporation should build good relationships with its various stakeholders and advance by creating and offering new value to contribute to society. This is the kind of corporation that USHIO is working to become.



## USHIO Group Management Philosophy

The USHIO Group's approach to CSR can be seen in the management philosophy underpinning all activities of USHIO and USHIO Group members. In 1965, the year after the Company was founded, four key emphases were created based on the desire to make USHIO an indispensable company for everyone by drawing on the wisdom of employees to grow. The wording of these four key emphases has been revised over the years to reflect the changing times.



## 10 Action Guidelines

To translate our management philosophy into concrete action, we abide by the 10 Action Guidelines listed below. These guidelines shape the goals and behavior of every USHIO employee.

### Chapter 1

We shall aim to be a company that accepts diverse individual qualities and values and where people work together and pursue self-learning and self-improvement.

### Chapter 2

We shall strive for the company's sustainable growth through our innovative, proactive and prompt management.

### Chapter 3

We shall respect the basic human rights of all individuals and endeavor to create bright, safe and pleasant working environment.

### Chapter 4

We shall provide high-quality, safe products and services at appropriate prices and carry out fair and equitable business transactions.

### Chapter 5

We shall work to earn the understanding and trust of society.

### Chapter 6

We shall comply with laws and regulations and carry out fair business activities in accordance with socially accepted practices.

### Chapter 7

We shall fulfill our duties to the best of our abilities in conformity with internal regulations and standards.

### Chapter 8

We shall promote environmental protection and the efficient use of resources.

### Chapter 9

We shall carry out proactive public relations activities while respecting the value of information and intellectual property rights of third parties.

### Chapter 10

We shall contribute to the development of respective regions where we conduct business as a member of the international community.

## Glossary

**CSR (Corporate Social Responsibility):** The responsibility of a company as an entity in global society.

**Stakeholders:** People who are concerned or affected in some way by the decisions and actions of an organization. Generally described as people who have a stake in a company.

**Compliance:** Literally, compliance with laws and regulations. At one point this was all the word was taken to mean, but in recent years it has come to include observing the rules and norms of society, and contributing to society.

## Formulation of a CSR Action Plan

From fiscal 2011, USHIO has created a CSR Action Plan (Policy) and taken steps to reinforce its CSR initiatives. The plan covers items classified under the five pillars of governance, people,

quality, society, and environment. These items are then broken down further into action policies.

Five pillars		Issues	Specific action policies
Governance	Establish a compliance that encompasses international standards in global corporate activities, work to publicize CSR-related information and establish stakeholder communication, and strengthen and enhance the governance framework ➔ Page 13	Promulgation throughout the company	Further promulgate management philosophy and 10 action guidelines Conduct activities to raise awareness of CSR inside the Company
		Internal control	Establish a system for internal control and step up implementation
		Global measures	Establish a global CSR promotion system (Understand the current status in each country)
		BCP	Establish and promulgate a system for disaster preparation and accident prevention (Safety standards, disaster preparation standards, etc.)
			Review and strengthen product supply systems
		Compliance and ethics	Specify the laws and regulations that relate to USHIO's operations, and ensure they are observed, along with relevant internal rules.
			Stay abreast of changes and trends in relevant laws and regulations.
		Building information security systems	Restructure information security levels to meet regulation levels.
			Expand internal education about information security
Fair and impartial business activities	Maintain and develop sound relationships with all stakeholders		
Protecting property rights	Observe intellectual property protection policy		
People	Considering workplace environments, human rights, and diversity of values in hiring and using human resources ➔ Page 14	Human rights	Promote education on human rights, cultivate and practice a spirit of respect for other people, respect the dignity of the individual, eliminate discrimination
			Promote the 10 principles of the United Nations Global Compact throughout the Company
		Promotion of diversity	Achieve and maintain a ratio of employees with disabilities above the legally required minimum
			Increase the ratio of female employees on the main and management career tracks
		Promotion of work-life balance	Work to reduce working hours as a way of promoting work-life balance
			Give consideration to employees who are raising children Make child-raising programs easily accessible, and promote an environment free from gender-role prejudice
Health and safety measures	Work to reduce the number and severity of work-related accidents		
Quality	Initiatives to meet the needs of customers, shareholders, and business partners based on observance of market rules, and regulations ➔ Page 16	CSR Procurement	Carry out CSR awareness raising activities in the supply chain
			Examine options for carrying out CSR awareness raising activities in supply chains of Group companies
		Quality	Inculcate measures to raise quality, product safety and customer satisfaction
Society	Engage widely with society at all levels from local to international, cooperating and coordinating with other groups in contributing to education, culture, welfare, development and other aspects of society ➔ Page 18	Social contribution activities	Increase activities to contribute to local communities, and step up participation in environmental activities
			Environment
Environment	Engage in corporate activities to protect the environment. Strive to meet both environmental and business needs, including addressing global environmental problems affecting biotopes ➔ Page 20		

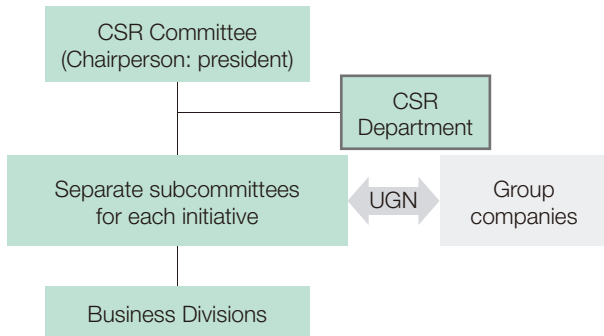
**Internal control:** The process of forming rules for conducting business appropriately within an organization such as a company, and ensuring business is conducted in accordance with these rules. In the wake of incidents of large-scale financial reporting and accounting fraud in the U.S., compliance has become an important issue worldwide.

**Social needs:** Among the various needs in the world today, this refers to needs in public or social areas such as the environment, poverty, human rights, welfare and health.

### CSR Promotion Framework

USHIO has established a CSR Committee, which is chaired by the president. The committee decides on policies for the whole Company relating to CSR initiatives. The CSR Committee establishes subcommittees as needed to oversee practical implementation of the policies it has decided, and discusses specific initiatives and ways to promote them.

#### CSR Promotion Framework



### United Nations Global Compact's Ten Principles

USHIO has declared its support for the United Nations Global Compact of principles concerning human rights, labor standards, the environment and anti-corruption. We have joined the local UN network supporting the compact, Global Compact Japan Network, and have taken an active role in various sectional activities.



#### United Nations Global Compact's Ten Principles and Our Initiatives

United Nations Global Compact's Ten Principles			USHIO's Related Initiatives
Human Rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	The third section of USHIO's 10 Action Guidelines sets out clear requirements for respecting basic human rights for all people, and prohibits unfair discrimination, among other measures. ⇒ Pages 10, 14
	Principle 2	make sure that they are not complicit in human rights abuses.	
Labor Standards	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	The USHIO Group respects the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. Under the third section of USHIO's 10 Action Guidelines, the Company strives to promote good labor-management relations, abolish discrimination in the workplace, and create working environments that are cheerful, safe, and comfortable. ⇒ Pages 10, 14
	Principle 4	the elimination of all forms of forced and compulsory labor;	
	Principle 5	the effective abolition of child labor; and	
	Principle 6	the elimination of discrimination in respect of employment and occupation.	
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges;	Section 8 of USHIO's 10 Action Guidelines clearly states the Company's position on actively working to protect the environment. We also formulated our 2020 Environmental Vision and are now working to implement Phase Three of the Environmental Action Plan. ⇒ Pages 10, 20
	Principle 8	undertake initiatives to promote greater environmental responsibility; and	
	Principle 9	encourage the development and diffusion of environmentally friendly technologies.	
Anti-Corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	Under section 6 of the 10 Action Guidelines, USHIO strives to prevent corruption and to conduct fair business activities. We have also set up a Compliance Committee and the USHIO Hotline (internal reporting system). ⇒ Pages 10, 13

#### Glossary

**The United Nations Global Compact:** This initiative was set up in 1999 by Kofi Annan, the United Nations secretary general at the time. The Global Compact calls for organizations to take practical steps to follow ten principles relating to human rights, labor standards, the environment and anti-corruption.

**UGN:** Ushio Green Network. An organization for promoting environmental action and information sharing at USHIO Group sites.

# Corporate Governance and Compliance

The basic policy of the USHIO Group is to ensure the transparency and efficiency of the Group’s management, and increase corporate value to meet the expectations of all of the Group’s stakeholders. To this end, we place the establishment and maintenance of systems of internal control, incorporating compliance with laws, regulations, social norms, corporate ethics, and J-SOX regulations, as a top management priority and make every effort to promote these systems.

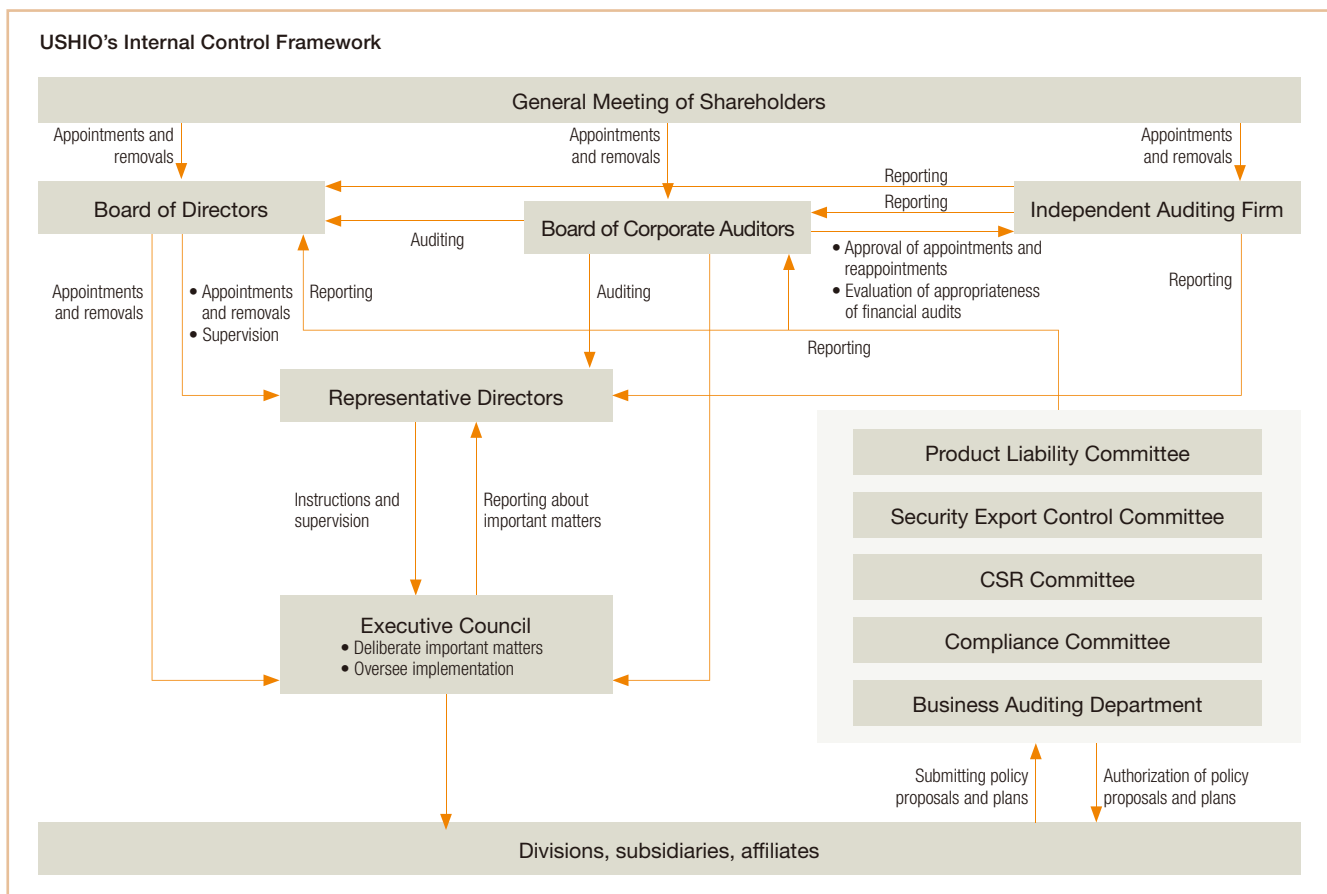
## Corporate Governance

Within the management control structures of USHIO, we have established the Board of Directors, which determines management policies and makes decisions about other matters of the highest importance. The directors also oversee the management of business operations. Meanwhile, the representative directors are responsible for conducting business operations. The Board of Directors has a regular meeting once a month in principle, and unscheduled meetings are held when necessary. We also have a Board of Corporate Auditors as an auditing body with six members including three outside corporate auditors. Each corporate auditor conducts audits within their specialized field of auditing. Furthermore, to assist the Board of Directors in reaching decisions, we established the Executive Council and the Group Coordination Council. These advisory units examine and discuss

management strategies and medium- and long-term management policies with respect to USHIO and the entire Group. In addition, the USHIO Group has a business unit structure and an executive officer system for the purposes of strengthening and speeding up the execution of business operations by the representative directors.

## Compliance

It is widely recognized that breaches of compliance can undermine the very foundations of the public’s trust in a company or government, and carry a risk of significant losses through claims for damages, and sharp declines in sales. At USHIO we have established a Compliance Committee to address compliance-related concerns, including potential risks, across the entire Group as early as possible.



\* Established July 2011

## Glossary

**Corporate governance:** This refers to a company’s mechanisms for management and supervision. Supervision refers not to monitoring for suspicious activity in management, but rather setting targets for management and evaluating performance. In other words, a mechanism for ensuring that management is managing the company for the shareholders.

**J-SOX:** This refers only to the section of Japan’s Financial Instruments and Exchange Law of June 2006 that relates to the obligation to submit an internal control report. As the Japanese version of the SOX law, it is referred to as J-SOX.

**PL:** This refers to Product Liability. Japan’s Product Liability Act sets out the liability of a manufacturer for loss of life, injury or loss of property suffered by anyone as a result of using a defective product.

## Relationship with Employees

By working to fulfill its responsibilities to society, the USHIO Group aims to create a company where employees can work with enthusiasm and a sense of purpose. As is clear from the first item in the Group's management philosophy: "Build both a prosperous Company and prosperous employees," this goal has remained the same since the Company's foundation.

### Respecting Human Rights

The USHIO Group respects the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. Our 10 Action Guidelines for business activities commit us to working to eliminate discrimination on the basis of race, sex, religion and nationality and for any other reason unrelated to ability or job performance, and to forming and maintaining good labor-management relations through dialogue based on good faith and mutual trust. USHIO also declared its support for the ten principles of the United Nations Global Compact in October 2010. The principles relate to human rights, labor, the environment, and anti-corruption. USHIO is promoting initiatives to ensure adherence to them.

### Diversity

#### Utilizing Global Human Resources

We are working to develop and utilize global human resources by introducing an international study program for employees, hiring international students, sending personnel from Group companies overseas to work at the parent company in Japan, and providing opportunities for interaction between Group companies.

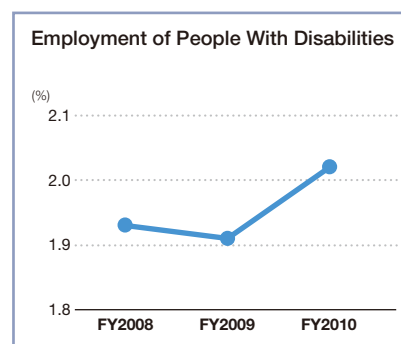
#### Support for Working Women

USHIO INC. strives to help employees balance their work responsibilities with having and raising children, which is a major reason women quit their jobs, and to create a company where women can work easily. As a result, the percentage of women employees in sales and technical positions has been increasing.

#### Employment of People With Disabilities

USHIO INC. employs 40 people with disabilities as of March 31, 2011. Employees with disabilities make up 2.02% of the company's workforce, which is above the legal requirement of 1.8%. Various initiatives are also conducted to promote employment of people with disabilities. They include holding workplace tours, participating in group presentations and actively recruiting at local schools. Workplace considerations include putting sliding doors on restrooms, installing handrails on stairways and other measures to improve disabled access at our business sites. We intend

to continue promoting employment of people with disabilities and working to make the workplace more comfortable for them.



### Work-Life Balance

#### Support Programs

We are committed to developing a working environment that enables both men and women to balance their jobs and home life without excess worry. We offer childcare leave and other support programs that go beyond legal mandates. In March 2009 we created the Work-Life Balance Handbook, which contains information on programs for balancing work. It also contains information on child-raising and maternal welfare, how managers should respond, and other tips for employees who would use the programs and for their managers. In June 2009 we earned Kurumin certification under the Act for Measures to Support the Development of the Next Generation for the second time. There are only 67 companies nationwide that have earned the certification twice (as of June 2009 and announced by the Ministry of Health, Labour and Welfare).

#### Employees Using Childcare Leave

	FY2008	FY2009	FY2010
Men	0	0	2
Women	23	26	29
Total	23	26	31

### Glossary

**ILO:** The International Labour Organization was established by the 1919 Treaty of Versailles. As an international organization, the ILO works in all countries to improve labor conditions and realize social justice.

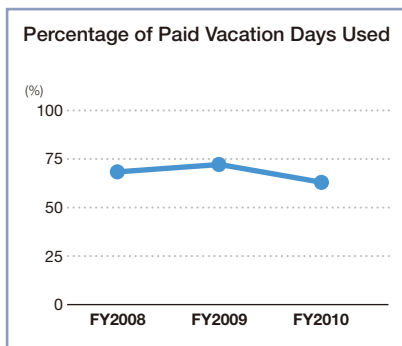
**Diversity:** The principle of diversity calls for the creation of organizations that allows diverse people to achieve their full potential, regardless of race, gender, age, or beliefs.

**Work-life Balance:** This refers to regulating the workplace and the social environment to allow people to enjoy full lives while working. The concept extends further than the simple reduction of overtime, calling for initiatives that improve the quality of both work and private life to achieve synergies.



### Paid Vacation and No-Overtime Days

Based on a commitment to work-life balance, we designate certain days as no-overtime days and prearrange paid vacation days to give employees time to spend with their friends and family or on their own pursuits and to help create a more dynamic working environment. We believe that performance improves when employees maintain their physical and mental health by taking time off to relax and rejuvenate.



### Occupational Health and Safety

#### Preventing Work-Related Accidents

Safety patrols are conducted at each office and worksite with the goal of completely eliminating work-related accidents. We are also switching to alternatives to organic solvents that have been implicated in health problems.

#### Frequency of Work-Related Accidents

FY2008	FY2009	FY2010
0.59	0.30	0.00

### Building Good Industrial Relations

USHIO provides regular opportunities for management and labor representatives to come together for discussions. This is one way that we strive to improve the workplace environment, and to build good industrial relations.

### Education and Training for Human Resources Development

Various training programs have been established to facilitate the development of personnel capable of acting independently and to make it possible to align the company's prosperity with enriching the lives of individual employees.

#### Globalization Training

**International study program:** This program is designed to provide employees with specialized knowledge and technical skills and give them an international outlook through exposure to culture and knowledge in Japan and overseas.

#### Support for Self-Development

**Correspondence courses:** This fiscal year we have a lineup of roughly 296 courses on subjects ranging from management to computer skills, in addition to basic classes on foreign languages and technical topics and certification courses. When employees finish a course, they are paid a bonus. The courses accommodate the desire of employees to keep learning. In fiscal 2010, a total 336 courses were taken.

**TOEIC testing:** TOEIC tests are given to employees who want to gauge their English ability and further improve it. The company pays a portion of the testing fees. A total of 95 employees took the test in fiscal 2010.

**Kurumin:** The Kurumin symbol is used by companies who receive certification from Japan's Ministry of Health, Labour and Welfare after creating and implementing an action plan for supporting employees in child-rearing, and meeting certain standards.

**Frequency of Work-Related Accidents:** This number shows the frequency of accidents as the number of work-related fatalities or injury-accidents occurring per 1 million labor hours.

# Relationships with Customers and Business Partners

To accurately grasp the needs of our customers, we think from their perspective, then work as one with our business partners to improve our product development and quality. In this way we provide products and services with appealing quality that goes above and beyond the run-of-the-mill.

## Quality Policy

USHIO has created unified quality policies for the entire Group and continued its efforts to improve quality.

### Basic Philosophy

USHIO regards product quality as an overriding priority and will promptly provide global markets with high quality, safe products and services that are highly reliable and economical in order to fulfill the requirements of customers.

### Action Guidelines

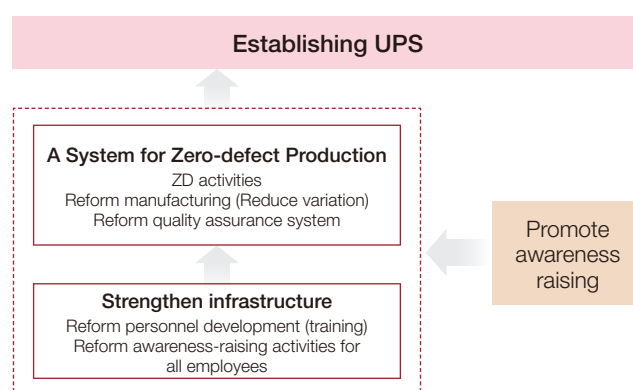
1. We will act rigorously in putting the customer first and putting quality first, and will develop appealing products with cutting-edge technology to fulfill the requirements of customers and earn their trust.
2. We will strive to further improve quality by developing entity-level quality management systems and continually working to improve their effectiveness in order to meet the needs of customers.
3. We will work to share information with customers, make cost improvements, develop new products, pioneer new markets, and promptly provide global markets with high quality, safe products that are highly reliable and economical.

April 1, 2010  
Shiro Sugata  
President and  
Chief Executive Officer  
USHIO INC.

## UPS (Ushio Production System)

UPS (Ushio Production System) is the name of a new initiative aiming to establish a unique new production system at USHIO's Harima Division from fiscal 2011. Amid a rapidly changing business environment, it is important to be able to efficiently supply high-quality products in any environment. To achieve this, we saw the need to return to the basics of manufacturing and bring all employees together to establish our own unique production system. The main thrust of the UPS initiative is ZD (zero-defects) activities, which seek to eliminate defective work by stimulating individual autonomy and enthusiasm among employees and fostering creative thinking. Using the ZD activities as a framework, each division will establish parallel working groups, including a "Worksite Improvement Team," "Quality Assurance System Improvement Team," and an "Education Improvement and Awareness Promotion Team," to build a truly robust production system.

### Mechanism for Establishing UPS



## Lamp Handling Manual

Many of the lamps that USHIO handles are extremely specialized and require users to have specialist knowledge. Realistically, many of the people using our lamps in their workplaces do not have specialist knowledge, and USHIO has received numerous enquires from customers asking about the correct way to use its products. To meet one area of this need, we created a dedicated user's manual for the xenon lamps that are used in cinema projectors, and distributed it to cinemas throughout Japan. The manual uses photographs to enable even first time users to

## Glossary

**Due Diligence:** Originally this was a financial term referring to general research activities relating to a company, real estate asset or financial instrument targeted for investment or an M&A. In the 2008 United Nations report on human rights issues by John Ruggie, due diligence was proposed as necessary for corporations to fulfill their responsibilities regarding human rights. Due diligence is also included in the ISO26000 international guideline on CSR activities as an item for organizations to undertake.

**Conflict Minerals:** Conflict minerals are gold, tin, tantalum and tungsten mined in the regions around the Republic of Congo that find their way into products. Under the 2010 U.S. financial reform bill, SEC registered companies are obliged to report on their use of such minerals. This disclosure is required because of concerns that such mining products are a source of funding for armed groups that are known to commit serious human rights abuses in the Republic of Congo.

understand, and covers the construction of the lamp, the operation of each component, handling and disposal, troubleshooting, and more. We also offer to dispatch staff to conduct onsite training sessions on request.

### CSR Procurement and Checking for Conflict Minerals

Cooperation from business partners is crucial for USHIO to contribute to the world through excellent products and services. CSR procurement initiatives are intended to build relationships of sustainable coexistence between USHIO, its business partners, and society. In fiscal 2011 we will conduct a CSR survey of our suppliers and analyze the results. We have also started a survey to ascertain the usage of conflict minerals in components, as part of our due diligence.

### Green Procurement Standards

At USHIO, we have established Green Procurement Standards to guide material purchasing, and these standards are posted on our Web site. While complying with the RoHS directive and other laws and regulations specific to each country we operate in, we stipulate our own list of chemical substances with an environmental impact, and comply with both internal and external requirements relating to chemical substances contained in products. Under the Green Procurement Standards, we issue forms for self-assessment of standard compliance systems, and request that our business partners put in place an environmental management system (EMS). From March 2008 we have also joined the JAMP consortium and become involved in creating industry-wide systems.

### Supplier Seminars

Following the revisions to the USHIO Group's Green Procurement Standards, a seminar for suppliers was held at the Harima Division in June 2010 to explain the revisions. This briefing included the latest trends in REACH and other environmental regulations, and USHIO's environmental and CSR initiatives. We worked to further strengthen relations with suppliers by promoting greater understanding of USHIO's current status and activities. Between November 2010 and March 2011, USHIO also ran 17 seminars on how to present data in JAMP/AIS formats. We will continue these seminars from April 2011, and work to allay our business partners' concerns about surveys of chemical substances contained in products. We will work to further

strengthen relations with suppliers by promoting greater understanding of USHIO's current status and activities.

### Support for Acquiring Eco-Action 21 Certification

We have held Eco-Action 21 (EA21) seminars since fiscal 2006 in order to help develop harmonious relations with business partners based on mutual prosperity. In fiscal 2009, we expanded and enhanced the EA21 seminar and held a course on acquiring EA21 certification. As a result, in fiscal 2010, the percentage of certified business partners of USHIO INC.'s Gotemba Division acquiring environmental management system (EMS) certification stood at 63.9%, above our target of 60%. Activities are underway in fiscal 2011 to achieve our goal of having at least 70% of certified suppliers acquire EMS certification. Many suppliers of USHIO INC.'s Harima Division have also joined in the program, with several acquiring EA21 certification in fiscal 2010.



Seminar for explaining Green Procurement Standards

### Fair, Impartial, Stable Procurement Activities

USHIO INC. regards free and fair competition between companies as the source of dynamic development for society. In our relationships with business partners, we always respect the position and rights of suppliers, comply with relevant legal requirements, observe social norms and engage in sound business practices.

Procurement activities are the responsibility of staff in procurement divisions who have received special training and instruction. For new transactions, quality, cost, delivery dates, environmental performance and other factors are determined on the basis of objective criteria and fair, impartial transactions are conducted.

Moreover, since the Great East Japan Earthquake, procurement staff have also conducted prior risk analysis, and stepped up reviews of business continuity management (BCM) for materials, mainly by preparing manuals for responding to risk events and upgrading information on material supply, production sites and transport routes, including for secondary and tertiary suppliers.

**Environmental Management System:** Often abbreviated as EMS, an environmental management system is a system where companies, groups and other organizations set their own environmental policies and targets then take measures to achieve them. Examples include the ISO14001 international management standard, the Eco Action 21 standard of Japan's Ministry of the Environment and the EU Eco-Management and Audit Scheme, EMAS.

**JAMP:** JAMP stands for Joint Article Management Promotion-consortium. The consortium was established in 2006 by volunteer corporations to help strengthen management of chemical substances throughout supply chains at the industry-wide level.

**BCM:** BCM stands for Business Continuity Management. It is a management method for establishing policies and plans for continuing business operations and responding quickly and effectively in the event of a natural disaster or other situation where normal supplies and systems may be impaired.

## Relationship with Society

We shall contribute to the development of respective regions where we conduct business as a member of the international community.

### The USHIO Foundation

The USHIO Foundation was established in 1994 to commemorate the 30th anniversary of the founding of USHIO. Its purpose is to contribute to the development of human resources, learning and culture. The foundation was designated as a public interest incorporated foundation by the Japanese government in April 2011 and made a new start as the USHIO Foundation. Its main projects include supporting the development of the next generation of human resources who will be responsible for leading the world in the future by providing scholarships to assist with their studies, and promoting further interaction and mutual understanding between Japan and other countries. In 2010, the foundation provided scholarships to 50 graduate students (including overseas students) and 13 students in specialized courses at colleges of technology.



Scholarship recipients at a scholarship presentation ceremony

### Factory Tours for High School Students (USHIO Gotemba Division)

USHIO gives factory tours to local high school students as a way to communicate with the local community. In 2010, high school students from a local high school in Gotemba made two trips to visit the respective sites of the Gotemba Division, where they observed production lines and other operations. The students toured UV lamp production lines and manufacturing processes for equipment with lamps embedded in them. These experiences served as good opportunities to deepen their interest and understanding of USHIO as a specialized lighting company.



High school students visit the Gotemba Division

### Lectures at Universities

#### Lecture on Environmental Concepts

##### (CHRISTIE DIGITAL SYSTEMS CANADA)

For two years running, CHRISTIE DIGITAL SYSTEMS CANADA has given lectures on environmental concepts at Wilfrid Laurier University in Waterloo, Ontario. The university is well known for its outstanding business and economics programs, and has taken a leading role in promoting educational quality by integrating sustainability practices in its education programs. These programs include units on ISO14001, sustainable development and environmental accounting. When students of the lecture voiced a request to see how environmental concepts were put in practice in a real-world context, CHRISTIE DIGITAL SYSTEMS CANADA responded by organizing a factory tour.

#### Lecture on Optical Technologies (USHIO)

USHIO conducts lectures on optical technologies each year at the University of Tokyo, as part of its involvement in CORAL, the Consortium on Education and Research on Advanced Laser Science. In 2010 we gave the lectures for the third time, with the lesson in June consisting of a lecture on "UV light from lamps, methods of generating VUV light, and industrial applications for light," and practical modules on "the spectroscopy and photochemical reaction of UV light." A large number of students researching light participated eagerly in both the lectures and the practical modules. As part of its contribution to society, USHIO will continue to support the development of young students who will be the optical technicians of the future.

### Participation in Himeji Akari Fantasy World (USHIO LIGHTING, INC.)

USHIO LIGHTING supports the non-profit organization (NPO) Akari no Machi Himeji, which participates in the Himeji Castle Festival as part of activities to promote education about light, as well as culture, the arts, and healthy development of children. At one of the events, called "The Spirit of Love for Himeji Castle Expressed Through Sand," which is held by the Himeji Junior Chamber International, a 6-meter-high replica of Himeji Castle is created in Higashi Oyashiki Ato Koen, a park sited on a former samurai residence, using sand carried from the Tottori Sand Dunes. Around the sand castle stand another 60 or so sand sculptures made by city residents. When night falls, the spectacle is lit up with halogen lamps provided for the occasion by the company

USHIO LIGHTING. The company also helps with "Star Night Zoo"—the illumination of the local zoo which has become a traditional part of the Himeji Castle Festival. In this way, USHIO LIGHTING helps to enliven local events.



Illumination of sand sculptures made by city residents

### USHIO Angels (USHIO AMERICA, INC.)

Employees of the Oregon Operation Division, located in the town of Newberg, are called "USHIO Angels" by some members of the community. The nickname was given by people aware of the charitable spirit and activities of the employees of the Oregon Operation Division, which started in 2005 when a co-worker succumbed to cancer. It is now the name of the team formed by employees for the Relay for Life, an event held in cities and towns around the country every year by the American Cancer Society.



Members of the USHIO Angels

The Relay for Life involves continuous walking for 24 hours, on the grounds of local schools, through parks and on sidewalks, with teams taking part in a relay format. Walking for 24 hours without resting is meant as a way of signifying support for people battling cancer, which is a 24 hour-a-day fight that takes a toll on the body. USHIO employees also raise money by selling homemade cakes and cookies and auctioning off handmade gift baskets and other items no longer used at home. Through these activities in fiscal 2010, the team donated over \$3,736 to the American Cancer Society.

### Donations for the Victims of the Great East Japan Earthquake (Group)

Donations in response to the Great East Japan Earthquake of March 11, 2011 came not only from Japan, but from Group business sites in Europe, the U.S. and Asia. At CHRISTIE DIGITAL SYSTEMS

U.S.A., employees made use of their remaining holiday leave to collect donations as they had after the Haiti Earthquake, with CHRISTIE DIGITAL SYSTEMS contributing a further 50% of the amount as a matching gift.



Fundraising initiatives at USHIO INC.'s Gotemba Division

### Participation in the Prefectural Citizens' Forestation Project (NIHON DENSHI GIJUTSU)

In June 2010, five employees from NIHON DENSHI GIJUTSU participated in a prefectural citizen's forestation project operated by the Kanagawa Trust Midori Foundation, helping to cut back the undergrowth in a patch of planted forest. In total, around 100 participants joined the event. After the work was finished, volunteers heard a mini-seminar on forests.



Participants in a prefectural citizens' forestation project

**NPO:** NPO stands for Non-Profit Organization. NPOs conduct a range of social contribution activities, and do not aim to distribute profits to their constituent members. Businesses that aim to create profits may themselves be recognized as NPOs, but the profits they generate are allocated to fund various social contribution activities.

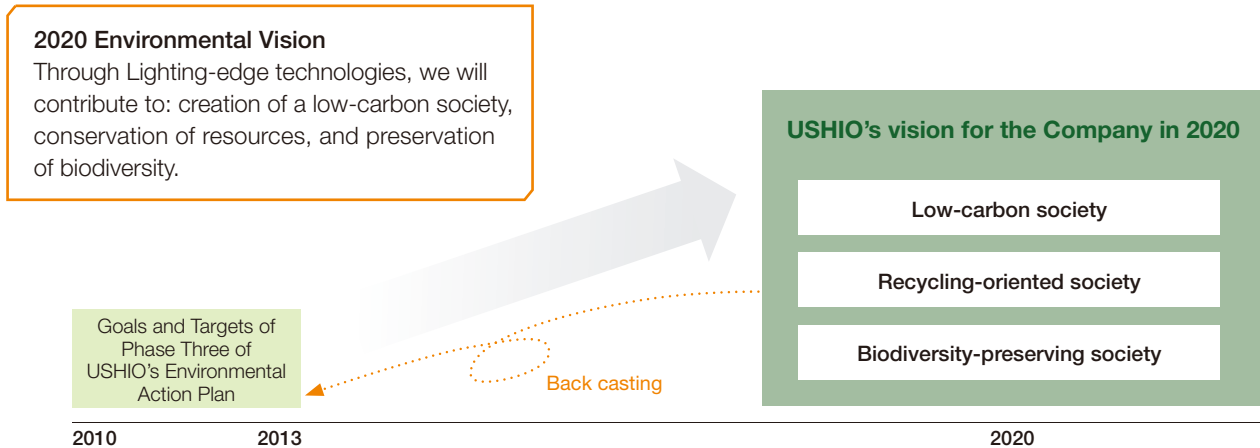
**Matching Gift:** When corporations or other groups collect gifts or donations, they may contribute an additional amount equal to the collected amount. This is known as a matching gift.

# Environmental Vision and Management

## 2020 Environmental Vision

The USHIO Group formulated its 2020 Environmental Vision with the goal of becoming a company able to contribute through its business activities to the realization of a low-carbon, recycling-oriented society that preserves biodiversity by the year 2020.

Under Phase Three of the Environmental Action Plan, which started in fiscal 2010, we extrapolated back in time from our vision for 2020, and broke down our vision into a set of specific goals through a process called “back casting.”

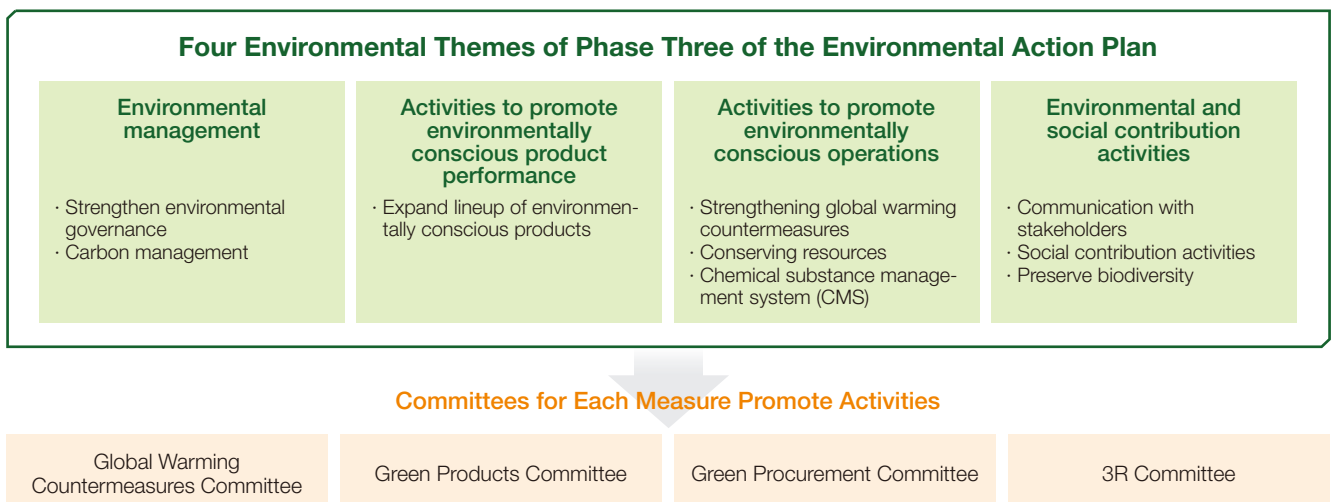


## Phase Three of the Environmental Action Plan

Phase Three of the Environmental Action Plan provides the following four environmental themes: environmental management, activities to promote environmentally conscious product performance, activities to promote environmentally conscious operations, and environmental and social contribution activities. The plan also sets out 17 specific measures and targets, and sets out

four environmental issue committees for each measure to promote activities: a Global Warming Countermeasures Committee, a Green Products Committee, a 3R Committee, and a Green Procurement Committee. Please refer to the corporate Web site for information on these activities and results for fiscal 2010.

Web <http://www.ushio.co.jp/en/csr/eco/manage/plan.html>



### Glossary

**Low-carbon Society:** A society that reduces its CO<sub>2</sub> emissions to prevent global warming.

**Recycling-oriented Society:** A society that uses resources carefully, promoting sustainable recycling through reuse and other means.

**Biodiversity-preserving Society:** A society that supports a rich variety of life by protecting diversity in genes, living organisms, and biotopes.

**Back casting:** A technique for setting targets by working backward from a future vision to the present.

# Global Warming Countermeasures

We have set goals for 2012 of reducing baseline CO<sub>2</sub> emissions (the average for fiscal 2006 to fiscal 2008) from energy consumption by 4% and in logistical operations by 10%.

## Fiscal 2010 Targets and Results

### Reduce CO<sub>2</sub> emissions from energy consumption

Reduce by 1% from base level ⇒ 6.6% increase

### Reduce CO<sub>2</sub> emissions in logistical operations

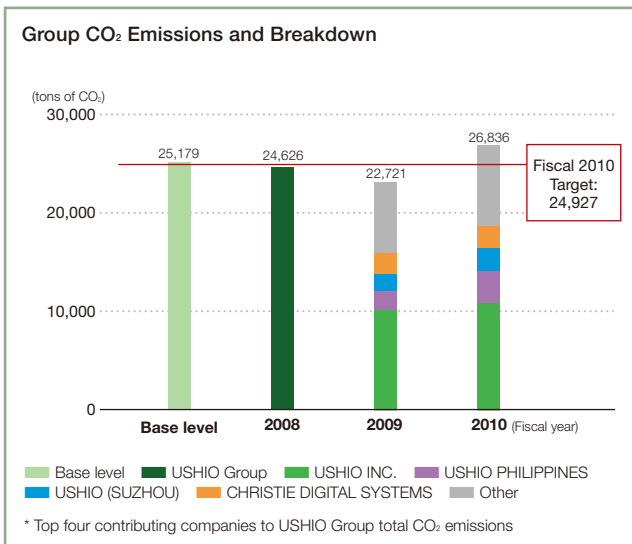
Reduce by 2% from base level ⇒ 17% reduction at USHIO INC., examined methods for quantifying Group emissions

## Measures to Reduce CO<sub>2</sub> Emissions from Energy Consumption

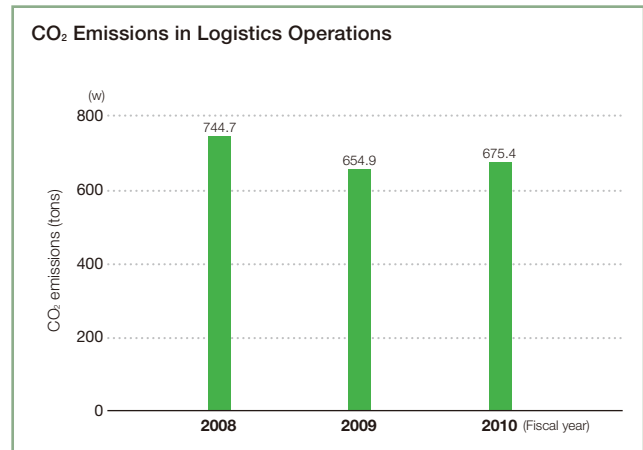
Despite a targeted 1% reduction in emissions from base levels, emissions in fiscal 2010 increased by 6.6%. The main reason was an increase in production activity in line with business expansion. In order to increase production at Group companies in Asia, some sites started operating new production lines. However, even when the impact of these new lines is discounted, overall Group emissions increased 1.8% from the base level. On the other hand, successful measures at each site to reduce power usage and changes in the product mix meant that emissions per unit sale decreased by 1.5% from the base level.

## Reducing CO<sub>2</sub> Emissions in Logistics Operations

USHIO INC. reduced CO<sub>2</sub> emissions in logistics operations by 17% compared with base levels (the average for fiscal 2006 to fiscal 2008). Specifically, the Harima Division and the Gotemba Division conducted joint transport, shortening domestic transport distances, and reducing deliveries by consolidating loads. Fiscal 2010 emissions increased compared to fiscal 2009, but this is largely due to an increase in deliveries in line with increased production. Our main focus in CO<sub>2</sub> reduction initiatives is on transport costs. Efforts include downsizing packaging to increase loading efficiency and improving loading methods.



\* Separate emissions coefficients are used to calculate results for each region.



## Initiatives Ahead

With our production volume increasing, it has become extremely difficult to achieve our target reductions on CO<sub>2</sub> emissions from energy use. Despite having to take other measures in response to power shortages following the March 2011 earthquake, we will also focus on the following initiatives.

- 1) Take measures and reinforce links between all sites with the premise that energy is a cost
- 2) Focus on measures and information sharing targeting the top four CO<sub>2</sub>-emitting sites.
- 3) To reduce CO<sub>2</sub> in logistics operations, create mechanisms to tie cost-cutting through efficiency to CO<sub>2</sub> reduction.
- 4) Examine other options for reducing emissions apart from reducing fixed energy consumption, such as emissions trading, etc.

**CO<sub>2</sub> coefficient:** CO<sub>2</sub> coefficients represent the amount of CO<sub>2</sub> emitted per kWh of electricity supplied. The USHIO Group uses the published figures from the respective power companies that supply each site.

# Contributing to the Environment Through Products

We will strive to ensure that our activities benefit customers who use our products, while aiming to develop Super Green (SG) products and to achieve a 25% improvement in the eco-efficiency of products by 2012.

## Fiscal 2010 Targets and Results

### Enhance range of super green products

Develop a total of five or more certified SG products  
Group-wide ⇨ Five products certified

### Enhance eco-efficiency

Enhance the eco-efficiency of core products by 15% ⇨  
Achieved for 10 of 18 core products

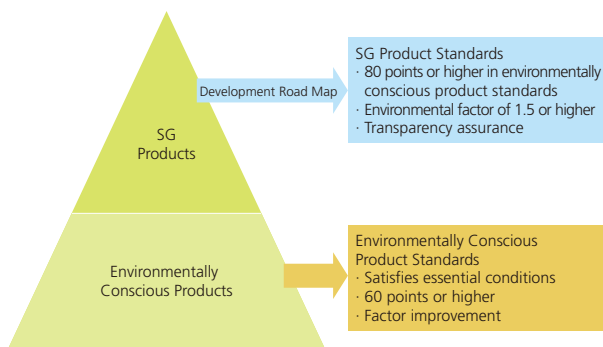
### Improve the recycling ratio of specific materials

Establish materials collection systems, establish designs that make products more easily reusable, monitor materials collection results and consider numerical targets for 2011 and beyond ⇨ Established a collection system for xenon cinema lamps, implemented a collection service

## Development of Environmentally Conscious Products

At USHIO, we incorporate our Environmentally Conscious Product Assessment Manual into our Design Standards so we can preevaluate the environmental impact of our products starting in the design stage. When the environmental performance of a product has been improved based on this evaluation, it is certified as an environmentally conscious product. If a product is outstanding even among environmentally conscious products, and uses innovative environmental technology on a completely different level from existing products, it is certified as an SG product.

### USHIO's System of Environmentally Conscious Products



## Development of SG Products

Products eligible for certification as an SG product must be the best in their class, while offering superior environmental performance in terms of energy efficiency, extended lifetime, 3R design, materials used, applications and so forth. In addition, the product must satisfy our new USHIO environmental factor\* requirement, which was established to clarify our standards following a fiscal 2009 review of certification requirements in light of recent trends in society. As of March 2011, the Group has certified five SG products, and plans to certify a further five during fiscal 2011.



\* USHIO Environmental factor  
= (Power output ratio x lifetime ratio)  $\sqrt{\{(\text{Input ratio})^2 + (3R \text{ volume ratio})^2 + (\text{Chemical substance content ratio})^2\}}$

## LCA (Life Cycle Assessment) Initiatives

No matter how much CO<sub>2</sub> emissions are reduced at factories, these activities are not meaningful if CO<sub>2</sub> emissions increase when the manufactured products are actually used by customers. Meanwhile, products can provide both cost and environmental benefits for customers if they use energy-efficient products. Therefore, to quantitatively measure the environmental impact of products and services over the entire life cycle, USHIO formulated LCA guidelines in 2006 and has implemented LCAs ever since. In fiscal 2009, LCAs were implemented for all major USHIO lamp products. Going forward, we will expand LCA activities to various devices in order to satisfy the needs of customers.

## Initiatives Ahead

In fiscal 2011, USHIO will not only certify SG products, but it will also take steps to provide information about these products, and to put them into use.

- 1) Certification of SG products (Group total so far: 10 products)
- 2) Promote SG products' systems in Group companies
- 3) Enhance the eco-efficiency of core products by 20% compared with fiscal 2000.
- 4) Make the sales contribution from environmentally conscious products visible, thereby raising awareness in each division.

## Glossary

**Environmental Factor:** A comparison of the environmental efficiency of a newly developed product and past products can be expressed numerically as an environmental factor. Higher numbers represent greater improvements.

**LCA (Life Cycle Assessment):** A method of assessing the environmental impact of a product not only during its use, but at every stage throughout its life cycle, from raw material to manufacture, distribution and disposal.



We intend to improve our ratio of waste volume to material input by 10% from fiscal 2009 levels by fiscal 2012 by linking environmental initiatives with business performance. This will be accomplished by eliminating inefficiencies through material flow cost initiatives, improving recycling rates for specific materials and other measures.

## Fiscal 2010 Targets and Results

### Reduce waste emissions

Promote zero emissions ⇨ Share waste processing information between Group companies and sites in Japan, and promote conversion of waste into valuable resources

### Improve the ratio of waste volume to total input of core materials

Improve the ratio of waste volume to material input at lamp production sites in Japan by 2% ⇨ Ratio of quartz glass waste improved 18% at USHIO INC.'s Harima Division, started implementing material flow cost accounting at Group companies

### Effectively utilize water resources

Reduce input by 2% from input basis ⇨ 0.5% improvement

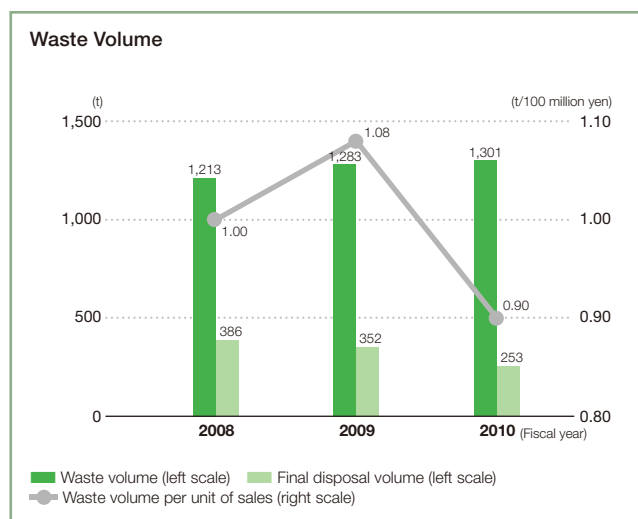
### Eliminate the usage of hazardous chemical substances

Selection of key chemical substances ⇨ Agreed to advance to first target on elimination of VOCs

## Initiatives for Reducing Waste

Efforts to reduce waste resulted in further sharing of information on waste processing at each business site, with many making progress toward achieving zero emissions. As a result, the cost of processing waste for the Group in Japan was down 29.8% compared with fiscal 2008.

At USHIO INC.'s Harima Division, we worked to turn waste into a valuable resource, reduced processing costs and utilized material flow cost accounting to improve the waste ratio for quartz glass material by 18%.



## Implementation of Material Flow Cost Accounting (MFCA)

We continued to promote use of MFCA, mainly at the Harima Division. By improving our processes, in particular reducing quartz glass off-cuts, we improved the waste volume to input ratio by about 9% in fiscal 2010, compared with fiscal 2009. A monthly resource production improvement meeting is held at Harima Division, to report on and promote initiatives in each department.

We are also promoting measures to reduce the waste volume to input ratio of quartz glass at the Fukuzaki Plant of USHIO LIGHTING.

## Initiatives to Reduce Water Use

This theme has been newly added to Phase Three of the Environmental Action Plan. During fiscal 2010 we analyzed water usage by the USHIO Group as a whole for fiscal 2009, and came up with measures to suit the level of need. At USHIO PHILIPPINES where water use was found to be particularly high, we switched to a recycling system for reusing water from April 2011, enabling us to reduce water use by 45% compared to the previous year.

## Initiatives Ahead

We will continue our activities from fiscal 2010 in 2011. The main initiatives are as follows.

- 1) Share information throughout the Group on waste processing methods, and promote conversion of waste into valuable resources
- 2) Promote material flow cost accounting, and examine other areas to apply it apart from quartz glass
- 3) Reduce water use by installing water-saving equipment
- 4) Continue analyzing water use at each site, and determine the main sites where action needs to be taken
- 5) Develop a clear picture of VOC use at each site, and propose measures to reduce use

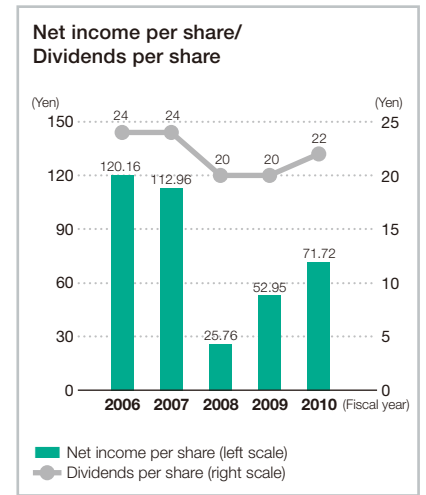
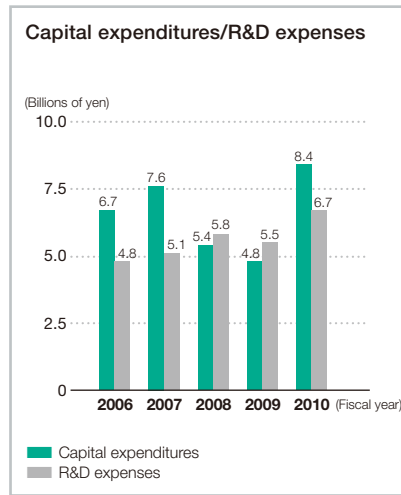
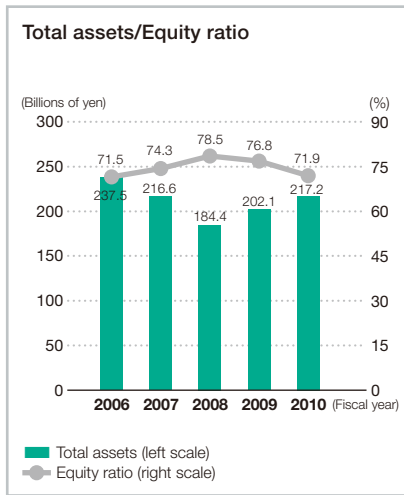
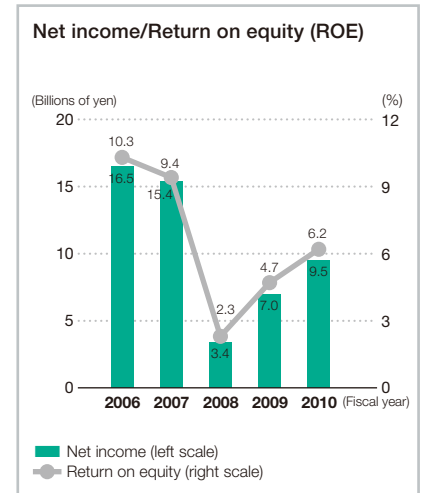
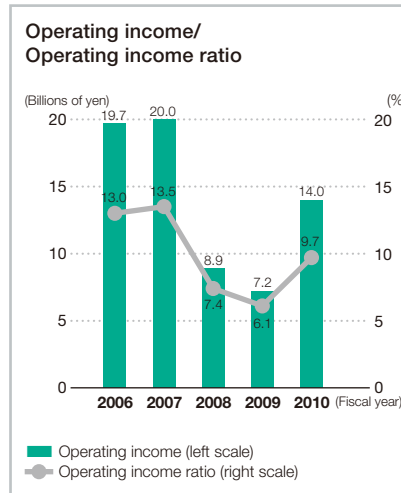
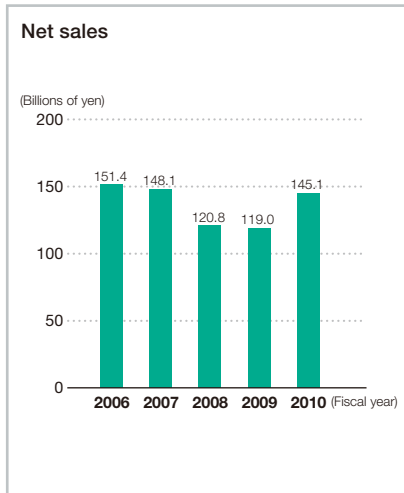
**Zero Emission:** Zero emission is a concept under the Resource-Circulating Society proposed by the United Nations University. The goal is not only to reduce the amount of waste generated, but to utilize waste substances as resources in production.

**Material Flow Cost Accounting (MFCA):** Material flow cost accounting focuses on resource and energy losses that occur in production processes, and performs an overall cost evaluation including material cost, processing cost, and equipment depreciation costs.

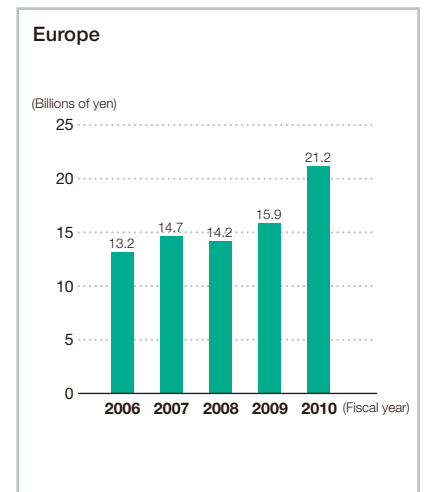
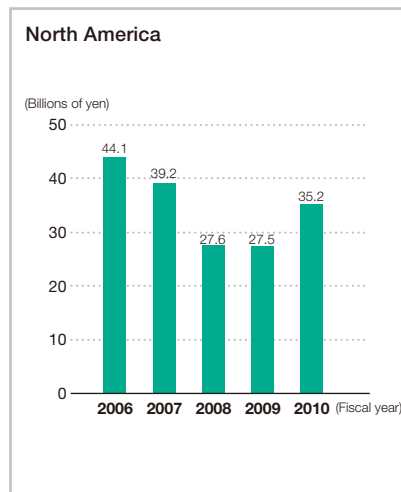
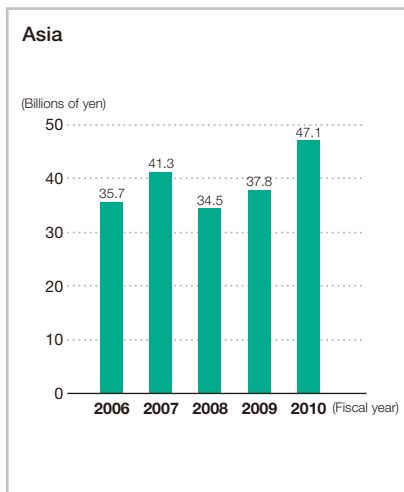
**VOC (Volatile Organic Compounds):** VOCs are found in many substances, including paint, printing ink, adhesives, detergents, gasoline, and thinners containing toluene, xylene and ethyl acetate. VOCs can cause atmospheric pollution and affect human health.

# Financial Reporting

## Key Performance Indicators



## Overseas Sales



# Third-Party Opinion

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**Masaatsu Doi**

Associate Professor  
Faculty of Regional Policy  
Takasaki City University of Economics

USHIO's Sustainability Report 2011 has two major changes compared with the report for the previous year. The first is an exciting new feature on pages 5 to 9, that discusses light, agriculture and plants, (specifically nurturing plants and preventing weeds with artificial light). Here the report explores the potential of USHIO's unique optical technologies and the new ways that the Company is engaging with society in a way that is easy for readers to grasp. In fiscal 2010, USHIO's performance received a boost from strong sales in the 3-D and digital cinema projector sub-segment. Now we see that USHIO has a bright future in the medium- and long-term in these new business fields of agriculture and the environment. The second change lies in the formulation for the first time in fiscal 2011 of a CSR Action Plan, which sets out five pillars and focus areas of CSR at USHIO, and specific action policies for achieving them (see page 11). In giving my third-party opinion in last year's report, I noted that it was difficult to see the position of CSR within the Company's business processes. This year this issue appears to have been remedied. As USHIO's CSR gradually evolves, there are still some other areas that require attention. I will address them below.

First of all, the CSR Action Plan for fiscal 2011 is presented as a breakdown of "five pillars," "issues" and "specific action policies." However, there is a need to explain why USHIO picked up on each of the "issues" that the Company should tackle. These explanations should also be expanded upon in separate pages. To give an example, there is no really clear explanation as to why USHIO needs to promote diversity.

Another point that was also made last year is that it is difficult to see what kind of fundamental policy informs the Company's social contribution activities. USHIO has been active up until now in a wide range of social contribution activities, including through a foundation, but with the current presentation of these activities, the external observer could be forgiven for forming the impression that they are largely ad hoc. I think this should be addressed.

In the section on "specific action policies," the current disclosure shows basic policies, but it would be desirable to show specific numeric targets and plans here also. Stakeholders also expect companies to apply PDCA cycles to their CSR action plans to gradually evolve the issues and activities each year.

USHIO plays a vital role in today's industry as the producer of numerous industrial light sources. The Company's activities extend beyond the field of illumination, to using light as energy, and to phototherapy technologies in the field of healthcare; the potential and expectations for USHIO seem to expand constantly. In this year's CSR Action Plan, the initiative "Creation of solutions to meet new social needs" could be taken as meaning creation of social innovation that generates new social value. This has become an increasingly important area of focus in recent years as companies' roles in society have become more prominent. As USHIO continues to lead us into a new era of light, I hope the company will develop its abilities in social innovation to channel the ability of business to solve a range of social problems, while aiming for sustainable management.

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## Response to Third-Party Opinion

**Tadashi Taki**  
Director, Officer in Charge of CSR

We appreciate receiving valuable feedback once again this year from Dr. Masaatsu Doi, Associate Professor of the Faculty of Regional Policy, Takasaki City University of Economics, on our Sustainability Report 2011.

This year's report carries a feature section on light, agriculture and plants. With this feature, we hope to provide a concrete example of how we are practicing our management philosophy, "contribute to society through superior products and innovative research and development." We were also encouraged by Dr. Doi's favorable evaluation of our efforts to incorporate CSR

topics into our business processes in our CSR Action Plan, which started from the fiscal year ending March 2012. We will continue these initiatives going forward.

Moreover, we will strive to play a leading role as a social innovator, using our business capabilities to address social problems while communicating closely and continuously with our stakeholders from a more global perspective. Through these initiatives, the Group will work together to fulfill its social responsibilities, and continue to merit trust and respect as a company.

#### Environmental Consciousness of this Publication

This publication is printed on paper approved by the Forest Stewardship Council at a green printing certified plant using waterless printing, which is highly effective in reducing volatile organic compounds (VOC). In addition, the computer-to-plate (CTP) method of printing is used to eliminate the intermediary materials required for the plate-making process.



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