

# Environmental Initiatives

## Environmental Vision

### ▶▶ Environmental Management at Casio: The Road to 2050

Casio is working hard to help build a sustainable society. Its initiatives, based on the Casio Environmental Vision, adopt a long-term perspective with a target date of 2050.

#### Environmental Management Policy

Casio's goal is to help build a more sustainable world while contributing to the creation of new markets and cultural phenomenon by developing compact, lightweight, slim, and energy-efficient products.

On behalf of everyone at Casio, I would like to take this opportunity to express our heartfelt condolences to the victims of the recent Great East Japan Earthquake and their families. We offer our sincere hopes for a speedy recovery and reconstruction.

The earthquake also resulted in a series of fires, nuclear meltdowns, and releases of radioactive materials at several reactors at the Fukushima Daiichi Nuclear Power Station operated by the Tokyo Electric Power Company, and this continuing challenge has yet to be fully resolved.

As a result, on June 1, 2011, the Japanese government issued power usage restrictions for large power customers (power contracts of 500 kW or more) of the Tokyo Electric Power Company and the Tohoku Electric Power Company, based on Article 27 of the Electricity Business Act. Energy saving measures are also required for small electrical users and households.

Given this situation, Casio is striving to reduce its energy usage in Japan by adopting creative ideas from employees. Emergency energy-saving measures are being carried out in various areas in order to ensure a reliable foundation for our business. Casio sites required to restrict power usage based on Article 27 of the Electricity Business Act are taking the necessary measures to comply with it.

The international COP16 conference on climate change was held in Cancun, Mexico in late November and early December 2010, and the Copenhagen Accord from COP15 was formally adopted. However, regarding the extension of the Kyoto Protocol to which Japan, Russia, and Canada are opposed, continued discussion is still needed while respecting the position of developing countries.

As for developments in the protection of biodiversity, COP10 was held in Nagoya in October 2010. The conference adopted the Aichi Biodiversity Targets, which outline 20 targets including long-term targets to be achieved by 2050 in order to build human societies that live in harmony with nature, as well as short-term targets



Yukio Kashio  
Executive Vice President & Representative Director

to be achieved by 2020 in order to stop the loss of biodiversity. The Nagoya Protocol was also adopted, which sets out methods for the acquisition and handling of genetic resources and the distribution of their benefits. Specific initiatives are now needed for the protection of biodiversity.

Since fiscal 2010, we have been promoting environmental management with the objective of building a low-carbon society. Given the recent environmental trends, however, starting in fiscal 2012 we intend to add the protection of biodiversity as an additional objective of our environmental management. Casio will take steps to achieve both these objectives.

In order to improve resource productivity, Casio is contributing to both the fight against climate change and the protection of biodiversity by leveraging its expertise in creating products that are compact, lightweight, slim and energy efficient, thereby saving resources (parts/materials, and plant-derived materials).

In the future, Casio will continue to undertake the following two initiatives as it seeks to build its business.

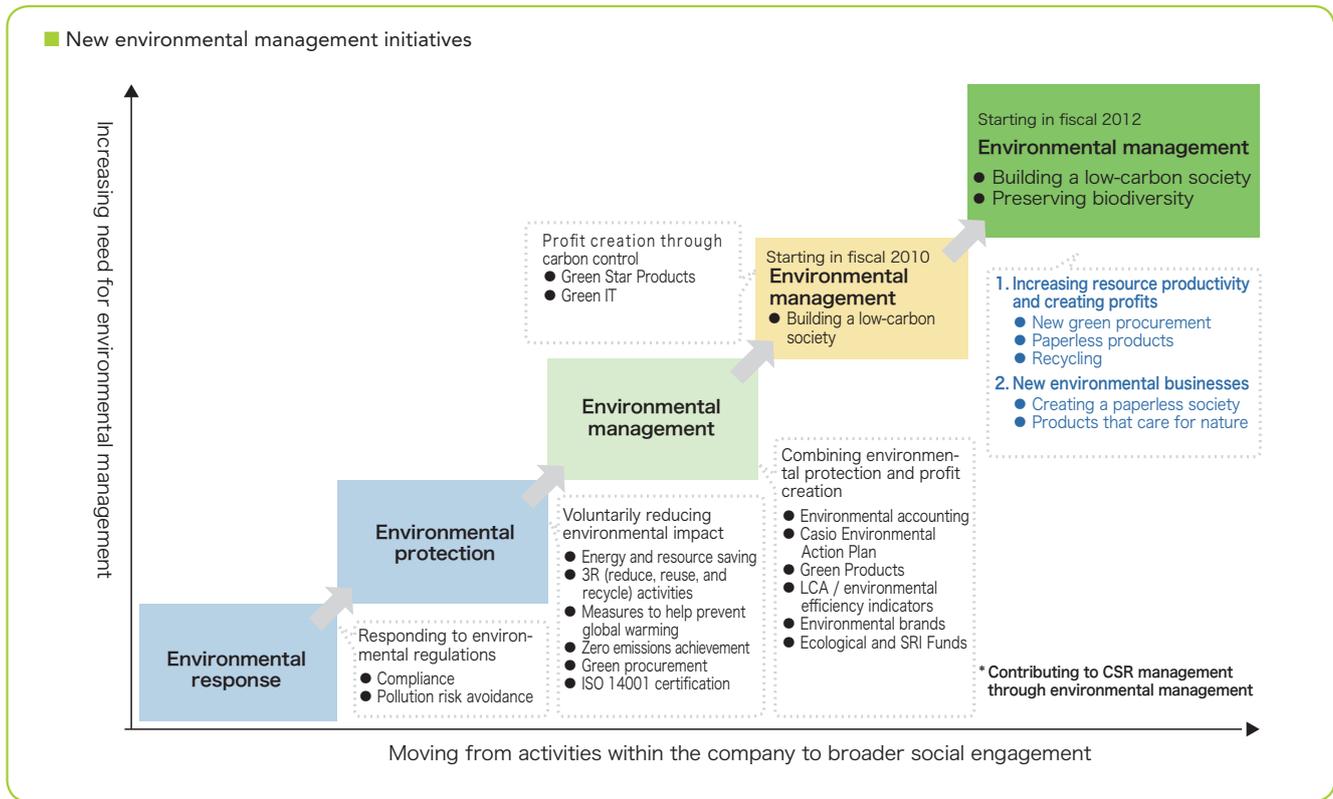
1. Generation of profits and improvement of brand power by pursuing superiority over competitors' products through the improvement of resource productivity.
  - New green procurement (adding requirements relating to biodiversity)
  - Expanding paperless products (electronic dictionaries, data projectors, digital cameras, etc.)
  - Recycling (investigating and promoting the recycling of rare and precious metals, as well as plastics)
2. New environmental businesses
  - Introducing products and frameworks that contribute to the creation of a paperless culture
  - Expanding products that care for nature

(Outdoor-oriented products: Protrek, EXILIM G, and digital cameras with GPS function, etc.)

In fiscal 2012, as part of efforts to fight climate change, Casio will establish specific plans and measures to achieve a 30% reduction in CO<sub>2</sub> emissions by fiscal 2021, a target of the Casio Environmental Action Plan already announced. As part of its activities to protect biodiversity, Casio will evaluate the impact of its business activities on biodiversity, revise its Green Procurement

Standards, and conduct supplier surveys based on those standards, following its Biodiversity Guidelines established on March 31, 2011. Casio will then confirm whether its business activities are posing any problems for biodiversity.

Through these initiatives, Casio intends to strengthen its foundation as a leading environmental company, while helping to build a more sustainable world.



## Casio's fiscal 2012 environmental management policy for the realization of a sustainable society

### 1. Response to social environment changes after the Great East Japan Earthquake (emergency measures)

- Performing business activities using the creative ideas of all employees
- Striving to conserve energy in order to ensure a reliable foundation for the business

Casio is complying with power usage restrictions based on Article 27 of the Electricity Business Act, at sites designated as large contract power users of 500 kW or more within the service areas of the Tokyo Electric Power Company and the Tohoku Electric Power Company.

### 2. Investigation of measures to achieve medium and long-term targets for reducing greenhouse gas emissions

- Establishing a specific plan for a 30% reduction in CO<sub>2</sub> emissions compared to fiscal 2006 by fiscal 2021, and an 80% reduction by fiscal 2051.

### 3. Promotion of Green Office and Green Star Product development

- Promoting paperless products for the realization of Green Offices
- Enhancing technologies to develop Green Star Products that are more compact, lightweight, slim and energy efficient.

### 4. Establishing and executing strategies for improving environmental management

- Identifying issues through close examination of various stakeholder surveys to devise and implement the necessary measures
- Starting initiatives for the acquisition of ISO 26000 certification

### 5. Investigation and promotion of initiatives for the protection of biodiversity

- Evaluating Casio's impact on biodiversity
- Reflecting findings in the Green Procurement Standards, and surveying suppliers
- Investigating possibilities for business contribution through products and services that help protect biodiversity

## Efforts to Fight Climate Change

In order to ensure that the next generation inherits this irreplaceable planet, Casio has established and is implementing medium- and long-term targets to fight climate change.

### Approach to setting medium- and long-term targets

With the establishment of these medium- and long-term targets, Casio intends to reduce its greenhouse gas emissions significantly. Moreover, the company is emphasizing its goal of becoming carbon neutral\*<sup>1</sup> which

means reducing Casio's net greenhouse gas emissions to zero. Accordingly, Casio has adopted the following Environmental Management Policy.

Casio's goal is to become carbon neutral by leveraging its ability to develop compact, lightweight, slim, and energy-efficient products to create new markets and cultural phenomenon.

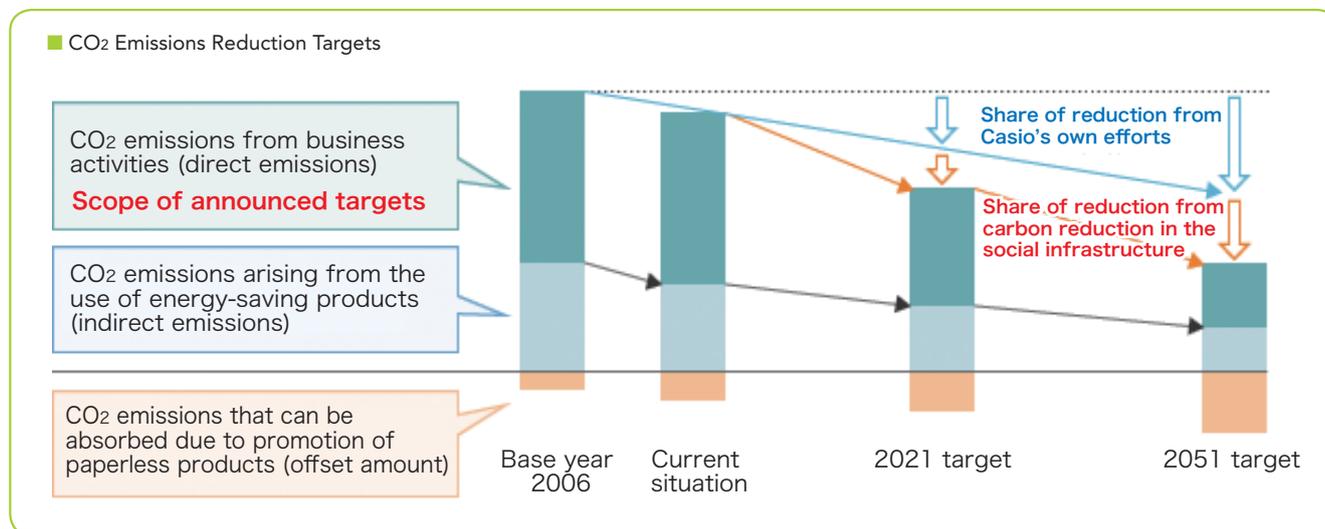
\*<sup>1</sup> Casio defines "carbon neutral" as offsetting its direct CO<sub>2</sub> emissions with CO<sub>2</sub> emissions reduction and absorption through other methods.

### Scope of emissions reduction targets

When Casio established its medium- and long-term emissions reduction targets, it also announced the target scope as greenhouse gas emission from business activities at Casio's production sites and offices in Japan and around the world. Furthermore, Casio is aiming to become a carbon neutral company by offsetting its total volume of greenhouse gas emissions (including the CO<sub>2</sub> emissions resulting from logistics, product usage, employee travel, and consignment production) with the

reduction effects of Casio's eco-products such as data projectors, electronic dictionaries and other products that promote paperless lifestyles.

In addition to the CO<sub>2</sub> emissions reduction achieved by the efforts of the Casio group, the target CO<sub>2</sub> emissions reduction also includes reductions due to the availability of cleaner energy such as electricity, and due to carbon reduction in the entire social infrastructure (see diagram).



### Switching to total-volume emission reduction targets

With the setting of global medium- and long-term targets, total-volume emissions reduction targets for greenhouse gases have been established in Japan and around the world, including reduction targets and emission trading systems. Casio has now finished the move to total-volume emissions reduction targets.

Casio had already set targets for the total volume of greenhouse gas reduction at its offices worldwide. How-

ever, with the establishment of its recent medium- and long-term targets, Casio has now set worldwide targets for reductions in the total volume of CO<sub>2</sub> emissions, which is a change from previous targets for reduction per unit of production.

The base year for Casio's medium- and long-term targets is fiscal 2006, decided based on changes in Casio's business structure, as well as the scope and accuracy of data acquisition.

### Carbon neutral calculation examples

Casio is looking into trial calculations for its reduction of greenhouse gases based on the use of Casio's eco-products and, in particular, products encouraging the transition to a paperless society.

Casio's current target products for this paperless initiative are data projectors and electronic dictionaries.

Casio calculates the amount of CO<sub>2</sub> emitted during the manufacture and use of these products, as well as the amount of CO<sub>2</sub> absorbed by the trees not harvested to make the paper saved by these products. When these two amounts are equal, the products are considered carbon neutral.

## Medium- and long-term targets

### Casio group's medium- and long-term targets for greenhouse gas emissions reduction

- **Medium-term target:** To reduce the total volume of global greenhouse gas emissions from business activities by 30% compared to fiscal 2006, by fiscal 2021
- **Long-term target:** To reduce the total volume of global greenhouse gas emissions from business activities by 80% compared to fiscal 2006, by fiscal 2051.

\* Business activities: This indicates activities of production sites and offices in Japan and overseas, and does not include CO<sub>2</sub> emissions from logistics, product usage, or employee travel.

## Measures for achieving medium- and long-term targets

In order to achieve its medium- and long-term targets for fiscal 2021 and 2051, Casio will steadily promote the following three points relating to initiatives for greenhouse gas reduction, taken from the five points of the Casio Environmental Declaration.

### 1. CO<sub>2</sub> reduction and absorption

In order to contribute to the realization of a low-carbon society, Casio will work to create products that reduce CO<sub>2</sub> and systems that absorb CO<sub>2</sub> more than ever before.

### 2. Utilization of clean energy

Casio will work to create products and systems using energy sources that are easy on people and the planet.

### 3. Adoption of renewable energy in business activities

Casio will undertake its business activities based on the adoption of renewable energy resources such as solar, wind, and water-powered energy.

## Measures for 2020

Casio is studying the potential of the following initiatives to achieve the medium-term target for 2020. It will also strive to assess as quickly as possible their potential to help meet the 2050 target.

### 1 Response to social environment changes after the Great East Japan Earthquake

- Responding to energy issues
- Introducing renewable energy sources

### 2. Environmental contribution through product usage

- Reducing the amount of electricity used by products
- Minimizing and optimizing the amount of product packaging
- Increasing the percentage of products that run on solar cells
- CO<sub>2</sub> absorption effect based on the expansion of paperless products (reducing demand for logging, etc.)

### 3. Utilizing carbon offsets

- Purchasing carbon offsets for products
- Promoting tree planting and greening
- Emissions trading, Clean Development Mechanism (CDM), and Joint Implementation (JI)

### 4. Reduction of CO<sub>2</sub> emissions in various business activity processes

- Materials procurement, product manufacturing, transport and distribution, product usage, recycling, and disposal
- Expansion of the scope of CO<sub>2</sub> emission data gathering on logistics, transport efficiency improvement, and modal shift
- Making production facilities more energy efficient, and improving production processes

### 5. Saving energy and increasing the percentage of non-fossil fuels used at sites

- Installation of LED lighting
- Installation of solar panels
- Installation of highly efficient air conditioning equipment

## Green Star Products

Casio's Green Star Products offer even greater environmental performance than Casio's conventional products.

### Green Star Product concept

In order to minimize the environmental impact of its products, Casio is promoting the development of environmentally friendly products in every aspect of planning and design.

In 1993, Casio began product assessment in order to systematize and promote its development of eco products. New products had to undergo a preliminary assessment for their environmental impact and meet certain criteria in order to be certified as Casio Green Products. Prior to fiscal 2008, Casio worked towards an initial Green Product sales target of 80% of total sales,

and in that year the company achieved 84%.

With the achievement of this target, Casio decided to create even stricter criteria and implement more specific, detailed assessments. Qualifying products are certified as Green Star Products, representing the best of Casio Green Products. This ensures that Casio's products continue to set the bar higher and drive the realization of a sustainable society.

For the convenience of customers, Casio indicates information about environmental features in catalogs and on packaging of the Green Star Products.

### Green Star Mark

The Green Star mark is used according to the strict requirements of the Casio Green Star Mark Operation Manual.



This mark indicates a product that was developed in accordance with the Green Star Concept.

### Casio Green Star Products

See the product lineups that were certified as Casio Green Star Products in fiscal 2011 (photos show

product examples).

#### Calculator




**Environmental Features**

- Solar battery powered
- Contains at least 40% recycled plastic (gross weight ratio of plastic)

DS-2DT

#### Electronic dictionary




**Environmental Features**

- Transport efficiency increased by 36% by reduced packaging (compared to Casio's XD-SP6600)

XD-B8500

#### Digital camera




**Environmental Features**

- Energy consumption per shot reduced by 44% in the QV according to CIPA standards
- Weight reduced by 21%
- Transport efficiency increased by 59% by reduced packaging (compared to Casio's EX-Z1200)

EX-Z3000

#### Data projector




**Environmental Features**

- We do not use a mercury light source
- Transport efficiency increased by 30% by reduced packaging (compared to Casio's XJ-S33)

XJ-M255

■ Electronic musical instrument





**Environmental Features**

- Energy consumption during use reduced by 78% (compared to Casio's AP-400)

AP-420

■ Watch





**Environmental Features**

- Solar battery powered

OCW-T1000

■ Page printer





**Environmental Features**

- Energy consumption during use reduced by 47% (TEC value in compared to Casio's N3600)

GE5000

■ Handheld terminal





**Environmental Features**

- Size reduced by 26%
- Weight reduced by 17% (compared to Casio's DT-500)
- Cord contains no PVCs, which are specified harmful substances

IT-300

**Share of Casio Green Star Products in total sales: Performance and targets**

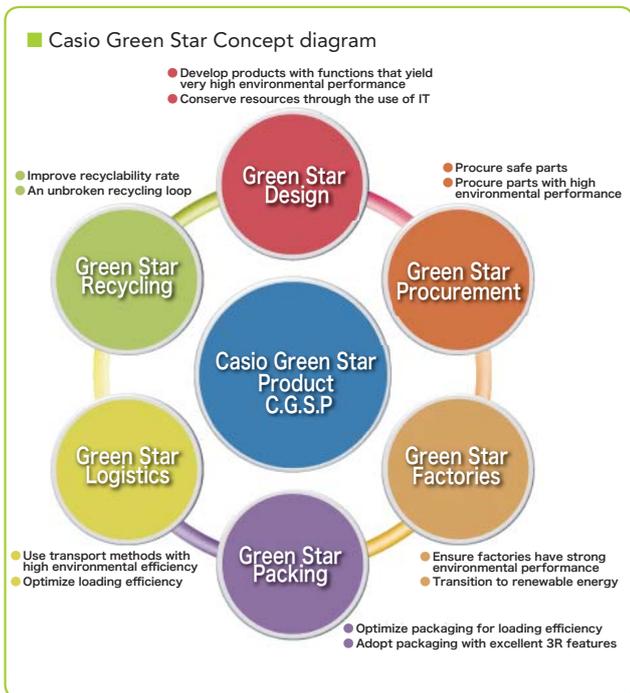
In fiscal 2010, Casio set a target of a 30% sales ratio of Casio Green Star Products to be achieved by fiscal 2013. The result in fiscal 2011 was 42%, hitting the

target two years ahead of schedule. A new target has been set in fiscal 2012, and Casio is aiming for even greater improvements.

**Concept for Green Star Product expansion and designation standard**

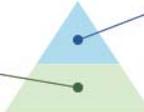
In order to develop more Green Star Products, Casio is strengthening initiatives at each stage of the product lifecycle. Casio addresses environmental issues based

on the Casio Green Star Concept, which calls for low environmental impact across the lifecycle.



■ Assessment categories

**Casio Green Products**  
Products that meet the certification standards of the Green Product Assessment below



**Casio Green Star Products Target: 30%**  
Products that meet the certification standards of the Green Product Assessment below and meet at least one criterion of the Green Star Product Assessment

■ Assessment criteria for each product

Green Product Assessment	Casio Green Star Product Assessment
1. Promotes recycling (labeling of materials contained)	1. Power consumption during use reduced by 20%
2. Designed for recycling	2. Solar batteries used and Eco Mark acquired
3. Components of products can be separated, disassembled	3. Use of solar batteries and long-life structure
4. Improved recyclability	4. Comes with a 10-year battery and long-life structure
5. Reduced resource volume	5. Body volume reduced by 20% or more
6. Reduced resource weight	6. Weight reduced by 20% or more
7. Improved energy efficiency	7. Load ratio reduced by 20% or more due to more compact packaging
8. Regulated use of chemical substances	8. Uses 30% or greater recycled plastic
9. Recyclability of batteries	9. Uses 25% or greater bioplastics
10. Recycling label on batteries	10. Contains no specific hazardous chemical substances (polyvinyl chloride)
11. Regulatory compliance	11. Improvement of 10% or more over the conventional ratio based on as LCA environmental assessment
12. Components of packaging can be separated, disassembled	12. Improvement of 10% or more over the conventional ratio based on product environmental efficiency
13. Regulated use of packaging materials	13. Has functions that make considerable contributions to environmental performance
14. Preserves the natural environment	When products meet the Green Production standards and also fulfill a criterion above.

90 points or more, out of a total 100 points possible

\* Casio Green Star Product certification standards may vary for some products.  
\* These standards will be periodically revised to keep pace with environmental advances.

## ▶▶ Biodiversity

This section introduces Casio's initiatives for preserving biodiversity.

### Casio's approach to biodiversity preservation

The 10th Conference of Parties to the Convention on Biological Diversity (COP10) was held in Nagoya, Japan in October 2010. At this important international conference for resolving issues related to preserving the abundance of life on this planet, the following measures were adopted.

- New Strategic Biodiversity Plan (2020), and the Aichi Biodiversity Targets (2050)
  - Nagoya Protocol on Access and Benefit-sharing
- In March 2011, Casio established Biodiversity Guidelines

for the entire Casio Group, as part of step 1 on this issue in its Environmental Action Plan. Next, the company will take steps 2 and 3 in order to preserve biodiversity and the services provided by ecosystems.

- **Step 1:** Establish a Casio Biodiversity Activity Policy and Guidelines (Recently completed)
- **Step 2:** Evaluate levels of biodiversity impact in all business areas (by fiscal 2012)
- **Step 3:** Implement Casio's policy themes for the realization of biodiversity preservation (by fiscal 2013)

### Casio Group Biodiversity Guidelines

#### Casio Group Biodiversity Guidelines

##### Basic Policy

The Casio Group recognizes that its existence and business activities depend on the benefits afforded by biodiversity, and that these activities also have an impact on biodiversity. Casio emphasizes biodiversity preservation activities as well as efforts to fight climate change. By including biodiversity preservation in environmental management and creating a system for implementation, the Casio Group is working to build a more sustainable world.

##### Specific Initiatives

- |  |   |
|--|---|
| <b>1. Business Activities:</b>         | Casio will help to build a more sustainable world by creating and providing products and services that encourage consumers to care for nature. This will be done by learning from nature and developing technologies that utilize this wisdom. <ul style="list-style-type: none"> <li>· Facilitating a paperless society</li> <li>· Contributing to resource saving by developing original technology</li> <li>· Developing products with care for nature</li> </ul>  |
| <b>2. Impact Assessment:</b>           | Casio will survey and analyze its impact on biodiversity through activities including R&D, design, procurement, manufacturing, logistics, sales, product use, disposal, and recycling, and at its office and plant locations. It will establish improvement measures and implement them starting with areas of highest environmental impact and benefit. <ul style="list-style-type: none"> <li>· Actively taking initiatives for proper procurement of parts (leather, wood, paper, etc.) and materials (mineral resources, etc.) that depend on ecosystem services.</li> <li>· Conducting questionnaire surveys across the supply chain in order to check ecosystem protection efforts for parts and materials that make up products.</li> <li>· Establishing impact assessment methods (checklists and indices) for the Casio Group</li> </ul> |
| <b>3. Information Disclosure:</b>      | Casio will strive to improve social awareness of biodiversity, by actively disclosing the results of its environmental activities.  |
| <b>4. Community Involvement:</b>       | Casio will actively support activities that contribute to biodiversity preservation by NPOs and NGOs, government agencies, and local citizens.  |
| <b>5. Full Employee Participation:</b> | Casio is aiming for activities that involve the participation of all employees, by increasing understanding of biodiversity preservation, and training employees to act on their own initiative.  |

March 31, 2011

Yukio Kashio, Chairman, Casio Environmental Conference

## Fiscal 2011 Biodiversity Preservation Activities

### Supporting Exhibitions by the Wild Bird Society of Japan

Casio Computer Co., Ltd., supported the 3rd "Interconnections Between Living Things Art Exhibit" held in Tokyo from November 12 to 21, 2010, and the exhibit of the same name in Nagasaki, held from November 27 to December 6, 2010. The two exhibits were attended by a total of more than 3,000 people.

The Casio Group is advancing activities to support biodiversity, fostering the many "interconnections between living things," including more than 30 million species on this planet. Casio has come together to promote activities to help protect all the irreplaceable living things on this planet and preserve the benefits they afford, while raising public awareness of these efforts.



Exhibit in the Collaboration Area (Tokyo)



Outdoor exhibit of stained glass with living things (Nagasaki)

## Activities Starting in Fiscal 2012

### • The Beautiful Tama River Forum

Casio will begin support for the Beautiful Tama River 100 Year Plan, with the aim of revitalizing the area,

based on activities in three main sectors: economy, environment, and education/culture.

## Activities Receiving Ongoing Support

### • WWF Japan

Casio endorses the mission and action principles of the World Wide Fund for Nature Japan (WWF Japan), which is striving to build a future where people and nature can live in harmony. Casio also supports the organization as a corporate member.

### • ICERC Japan

Since the 4th International Dolphin & Whale Conference was held in Japan in 1994, Casio has released both official G-SHOCK and Baby-G models to support the International Dolphin & Whale Eco-research Network. For over a decade, Casio has donated a portion of the watch sales to help promote dolphin and whale educational and research activities worldwide through ICERC Japan (International Cetacean Education Research Center).



G-SHOCK and Baby-G watches help support the International Dolphin & Whale Eco-Research Network project