

# Environmental Report



Realizing a Decarbonized Society



Building a Recycling Society



Living in Harmony with Nature

Environmental Management

Environmental Data

Environmental Compliance

Environmental FAQ

# Environmental Management

## Restructuring to Create New Environmental Principles

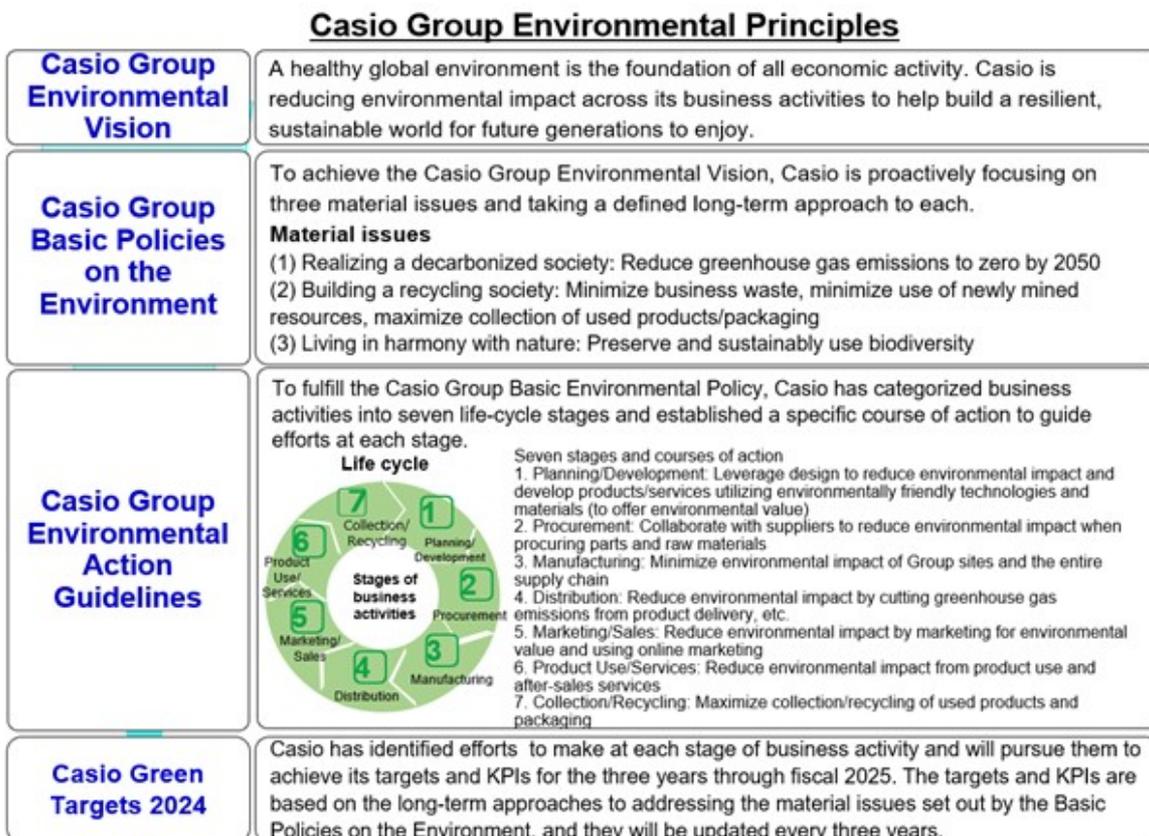
In October 2021, Casio conducted a general reassessment of the existing Casio Environmental Vision 2050 and Casio Group Environmental Policy, and restructured them to create the Casio Group Environmental Principles, which comprise the following elements.

- Casio Group Environmental Vision
- Casio Group Basic Policies on the Environment
- Casio Group Environmental Action Guidelines
- Casio Green Targets 2024

Building on the same shared principles, this restructuring unifies all of the elements, from the Casio Group Environmental Vision at the top, down to the Casio Green Targets 2024, which are targets for separate environmental initiatives taken by each organization. The restructuring also ensures that long-term policies and short-term initiatives are integrated and consistent.

Positioned just below the Vision, the Casio Group Basic Policies on the Environment establish long-term approaches for addressing the three material environmental issues of realizing a decarbonized society, building a recycling society, and living in harmony with nature. Next, the Casio Group Environmental Action Guidelines establish a course of action for each value chain from a life-cycle perspective. Finally, the Casio Green Targets 2024 include targets and KPIs for the coming three years, which are based on the long-term approaches for addressing material environmental issues and tailored to each organization's function. Thus, they represent clearly defined indicators to guide reliable implementation. Each fiscal year, efforts to meet the Casio Green Targets 2024 will be defined consistently with ISO 14001 activities.

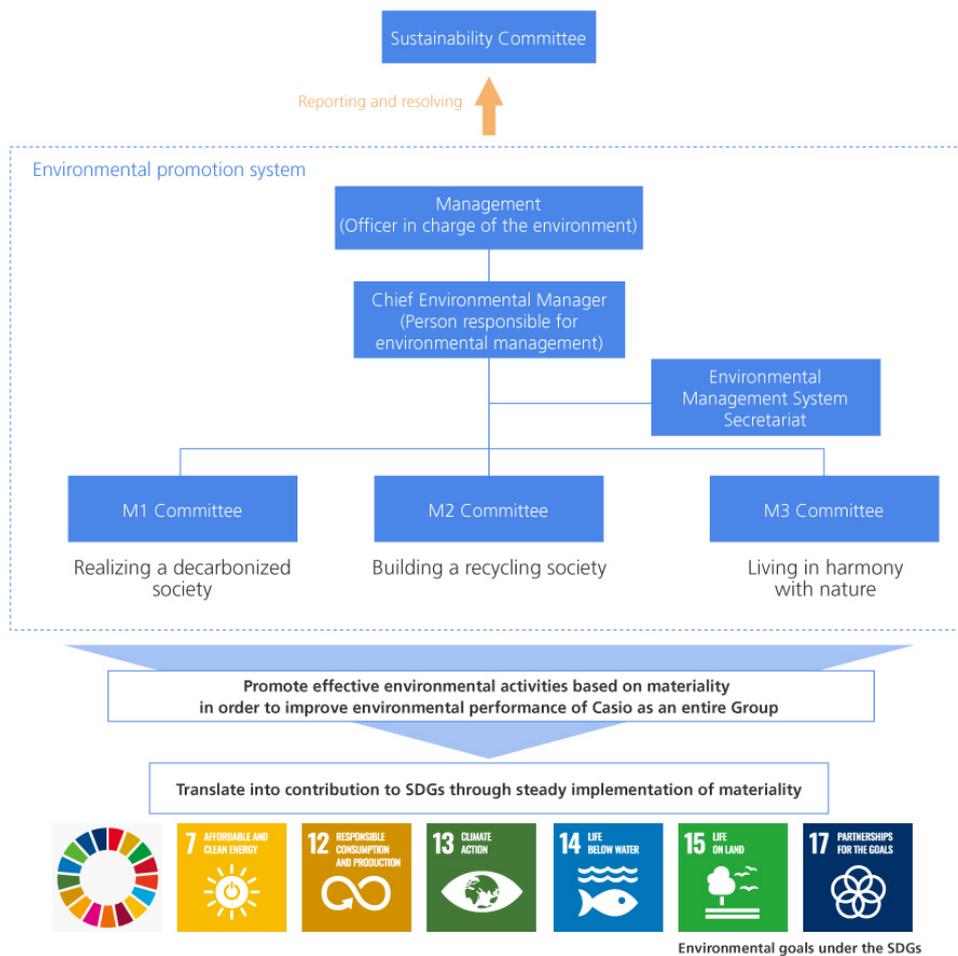
### | Casio Group Environmental Principles



## Implementation System

In 2016, Casio started to integrate its environmental management system into a group-wide system. First, the ISO 14001 certifications for the three main sites of Casio Computer Co., Ltd.—the headquarters, the Hamura R&D Center, and the Hachioji R&D Center—were integrated under ISO 14001:2015 certification in 2017. In addition, the company established committees to handle its three areas of material environmental goals and, as necessary, set up working groups underneath them in which committee members participate and engage in activities related to their respective areas. The system was changed to a materiality-based, top-down structure rather than the previous structure, which was based on individual departments and bottom-up. Casio will continue to manage environmental activities effectively as an entire Group using ISO 14001.

We intend to integrate each fiscal year's efforts to achieve the Casio Green Targets 2024 into the work of these committees, a step which would dovetail ISO 14001 committee activities into the core business of each organization.



## | List of ISO 14001 Certified Sites

Certified and registered site		Date acquired	Remarks
Casio Computer Co., Ltd.	Headquarters (including seven sales sites)	December 2000	In April 2017, Casio integrated ISO 14001 certifications for these 3 sites
	Hamura R&D Center	October 2000	
	Hachioji R&D Center	October 2000	
Yamagata Casio Co., Ltd.	Headquarters	November 1997	
Casio Business Service Co., Ltd.	Headquarters	January 2000	
Casio Techno Co., Ltd.	Headquarters	May 2020	
Casio Human Systems Co., Ltd.		December 2001	
Casio Computer (Hong Kong) Ltd.		November 2020	
Casio (Thailand) Co., Ltd.		July 2012	
Casio Taiwan Co., Ltd.		October 2007	
Casio Electronics (Shenzhen) Co., Ltd.		February 2002	
Casio Electronic Technology (Zhongshan) Co., Ltd.		October 2006	
Casio Electronics (Shaoguan) Co., LTD.		January 2018	
Casio Timepiece (Dongguan) Co., Ltd.		September 2019	

\*The percentage of Group employees at sites with ISO certification has reached 76.0%.

## | Environmental Education

Casio provides employees with environmental education in order to promote environmental activities smoothly. In addition to general education to raise awareness and promote understanding of the environment, each committee and working group identifies the competencies required for each activity at the beginning of the fiscal year and provides specific education in accordance with an annual plan for those who need to upgrade their competency following an evaluation of the competency of each committee member.

# Realizing a Decarbonized Society



## Approach and Policy

### | Social Issue

The increasing intensity of harmful weather events in recent years has been attributed to rising greenhouse gas emissions. River flooding and landslides caused by heavy rains have impacted livelihoods and taken lives, and economic losses continue to rise around the world. There is now a growing crisis awareness, not only in international political arenas such as the United Nations, but also in the business world, and in the financial sector in particular.

In 2015, the Sustainable Development Goals (SDGs) were established as part of the 2030 Agenda for Sustainable Development adopted at the United Nations Sustainable Development Summit, and the Paris Agreement was adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21). The objective of the Paris Agreement is to keep a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. To achieve that goal, the agreement set out the target of net zero emissions of greenhouse gases by the second half of this century.

Moreover, in October 2018, the Intergovernmental Panel on Climate Change (IPCC) released the Special Report on Global Warming of 1.5°C, which is based on scientific knowledge and stresses that many of the impacts of climate change could be avoided by limiting global warming to 1.5°C above pre-industrial levels instead of 2°C. In addition, the Working Group I Report component of the IPCC Sixth Assessment Report released in August 2021 states, "It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred."

In this way, international awareness has evolved from "global warming" to "climate change," and now to "climate crisis." Based on this heightened understanding, Casio has revised its social mission from "helping to achieve a low-carbon society" to "helping to build a decarbonized society."

In order to promote emissions reduction targets that are consistent with scientific knowledge concerning the achievement of decarbonization, Casio has set its long-term targets.



In April 2021, based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD),\*<sup>1</sup> Casio strengthened its governance relating to climate change, formulated strategies based on climate-change risk and opportunity analysis, and disclosed climate-related financial risk information. In 2022, Casio conducted a scenario analysis to identify risks and opportunities and assess the impacts.

Information Disclosure Based on TCFD Recommendations

\*1 TCFD: Established by the Financial Stability Board (FSB), an international body that monitors and makes recommendations about the global financial system, this initiative aims to help companies understand and disclose the financial impact of their climate change risks and opportunities.

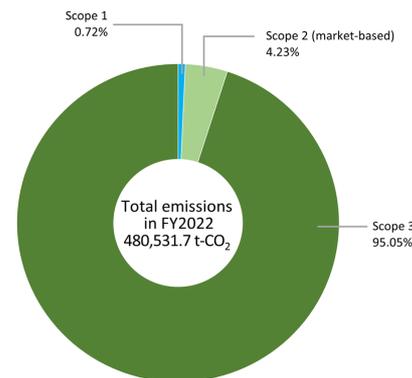
| Importance for the Casio Group

Greenhouse gas emissions related to the Casio Group include direct emissions from the entire Group (Scope 1) and indirect emissions associated with the Group's overall energy use (Scope 2), as well as emissions from the value chain such as procurement and manufacturing of raw materials, logistics, sales, and product disposal (Scope 3). Scope 3 accounts for 93.76% of total emissions.

Based on this, Casio has set targets for Scope 3 in addition to Scope 1 and 2, and is implementing measures to contribute to a decarbonized society.

In 2020, in order to gain a more detailed understanding of its greenhouse gas emissions and contribute to a decarbonized society based on objective indicators, Casio revised its criteria for calculating greenhouse gas emissions and its medium- to long-term targets to bring them into line with scientific knowledge.

Casio then requested the Science Based Targets initiative (SBTi),\*<sup>2</sup> an international initiative, to validate its revised calculation criteria and medium-term targets. In April 2021, the SBTi recognized that Casio's approach is in line with Well-Below 2°C and validated that Casio's criteria and targets are based on scientific evidence. Moreover, in December 2021, Casio joined RE100,\*<sup>3</sup> an international initiative that promotes the use of 100% electricity from renewable energy sources in business activities, and has been making various efforts to reach this target.



**RE100**

\*2 SBTi  
An initiative promoted by several international NGOs (CDP, the United Nations Global Compact, World Resources Institute [WRI] and the World Wide Fund for Nature [WWF]) to encourage private companies and other organizations to set science-based targets for greenhouse gas emission reduction and help achieve the goals of the Paris Agreement. The SBTi provides validation of science-based greenhouse gas reduction targets that comply with the Paris Agreement.

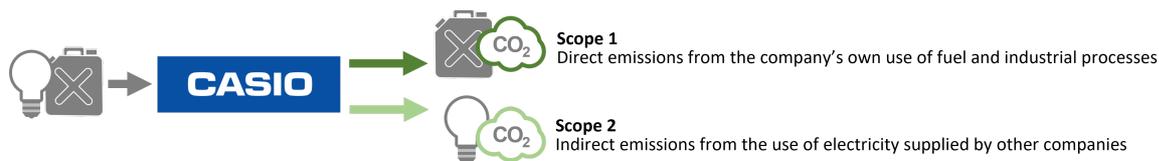
\*3 RE100  
RE100 is an international initiative operated by The Climate Group, an international environmental NGO, in partnership with the Carbon Disclosure Project (CDP). It is composed of companies that are working toward using 100% electricity from renewable energy sources in their business activities.

# Greenhouse Gas Emissions from the Entire Group (Scope 1 and 2)

## | Approach and Policy

The Casio Group has a variety of sites in addition to production sites, including R&D centers that mainly conduct testing and research and offices that carry out sales, maintenance, and overall Group management. Energy is used for the activities at each site, producing GHG emissions.

As these emissions are covered by Group-wide direct emissions (Scope 1) and indirect emissions associated with use of energy (Scope 2), Casio has set targets for Scopes 1 and 2 and is promoting Group-wide reductions.



### Scope 1

Direct emissions from the company's own use of fuel and industrial processes

### Scope 2

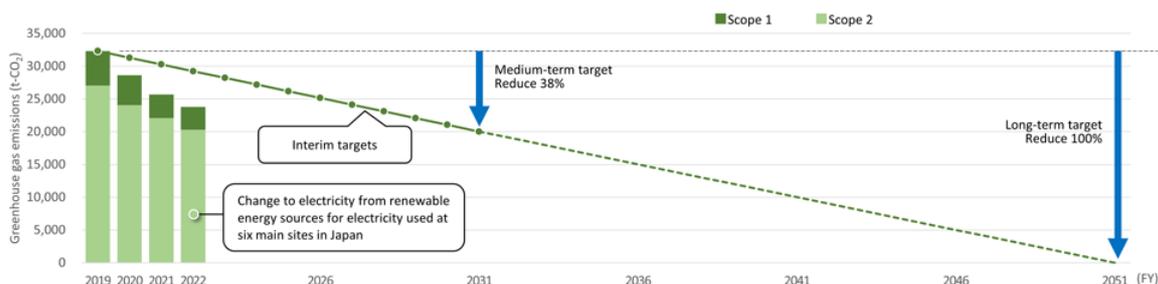
Indirect emissions from the use of electricity supplied by other companies

## | Targets and Performance

The Casio Group has set the following long-term and medium-term targets for Scope 1 and 2 emissions and is carrying out emission reduction activities.

	Scope 2 calculation method	Scope 1 + Scope 2 combined target		
		Base year	Target year	Reduction rate for target year
Long-term target	Market-based	-	FY2051	100%
Medium-term target	Market-based	FY2019	FY2031	38%

Casio has also set interim targets for each fiscal year and is confirming the status of achievement.



In fiscal 2022, although the impact of COVID-19 on activities at sites continued, there was also a trend toward recovery in activity levels at some sites, so it will be necessary to monitor the impact of the pandemic going forward. Casio also switched the electricity used at 6 main sites in Japan to electricity from renewable energy sources. The overall result of these efforts was that Group-wide emissions were lower than those in fiscal 2021 and met the target for fiscal 2022.

Evaluation ◎: All targets met, ○: Most targets met, △: Remaining issues outweigh results, ×: No progress made

Medium and long-term targets	FY2022 Targets	FY2022 Performance	Evaluation	FY2023 Targets
<p>Long-term target: Reduce to zero the total volume of Casio Group's greenhouse gas emissions (Scopes 1 and 2) by FY2051</p> <p>Medium-term target: Reduce the total volume of Casio Group's market-based greenhouse gas emissions (Scopes 1 and 2) by 38% compared to FY2019 by FY2031.</p>	Reduce the greenhouse gas emissions (Scopes 1 and 2) of group companies by 9.5% compared to FY2019, based on a market-based	Reduced 26.4% compared to FY2019	○	Reduce the greenhouse gas emissions (Scopes 1 and 2) of Casio Group by 12.7% compared to FY2019, based on a market-based

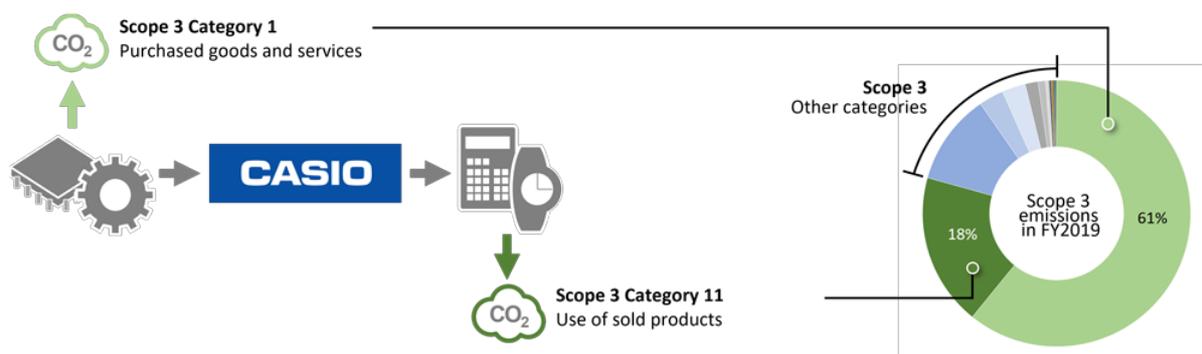
## Greenhouse Gas Emissions from the Value Chain (Scope 3)

### | Approach and Policy

Emissions from the value chain related to Casio's business activities are classified and calculated for each Scope 3 category. Casio has set targets for categories with particularly large emissions and is working to reduce Scope 3 emissions overall.

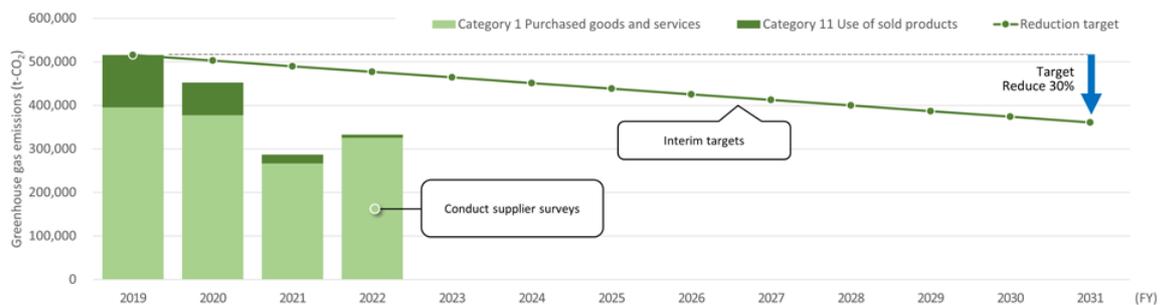
### | Targets and Performance

Casio has set targets for Scope 3 emission reductions with fiscal 2019 as the base year. GHG emissions associated with purchased goods and services (Category 1) and use of sold products (Category 11) accounted for more than three-quarters of total Scope 3 emissions as of fiscal 2019. Casio has set the following targets with a focus on these emissions and is carrying out emission reduction activities.



Casio has also set interim targets for each fiscal year and is confirming the status of achievement.

Target categories	Base year	Target year	Reduction rate for target year
Category 1: Purchased goods and services Category 11: Use of sold products	2018	2030	30%



Emissions in Category 1 (purchased goods and services) in fiscal 2022 have increased over fiscal 2021. This is likely the result of an increase in product manufacturing activities as the impact of COVID-19 on site activities tended to decrease somewhat going into fiscal 2022. As emissions associated with raw materials purchased from the supply chain account for the largest portion of Category 1 emissions, Casio is taking measures to address the supply chain. Casio is currently carrying out supply chain surveys on GHG emissions reductions, and it carried out supply chain surveys in fiscal 2022 that included the supply chain outside Japan. Casio plans to continue taking measures to address the supply chain in the future.

Emissions in Category 11 (use of sold products) appear to have decreased significantly. It is thought this can mainly be attributed to a decrease in sales of product groups with high emissions. However, careful monitoring is required, as sales could increase in the future due to changes in business policy or the impact of COVID-19.

Medium and long-term targets	FY2022 Targets	FY2022 Performance	Evaluation	FY2023 Targets
Reduce greenhouse gas emissions from purchased goods and services (Category 1) and the use of sold products (Category 11) by 30% by FY2031, compared to FY2019	Start survey of supply chain outside Japan and move further forward with survey of supply chain in Japan	Conducted supply chain survey with carefully examined content. Started survey of supply chain outside Japan as part of this	○	Move forward with survey of supply chain

## Analysis and Disclosure of Climate Change Risks and Opportunities Based on the TCFD Recommendations

In October 2010, Casio set a target of achieving net zero greenhouse gas (GHG) emissions from its business activities by fiscal 2051.\*1

In April 2021, Casio's GHG emissions reduction target for fiscal 2031 was validated as consistent with the Well-Below 2°C scenario based on scientific evidence by the Science Based Targets initiative (SBTi), an international organization that reviews GHG reduction targets.\*2

Casio is working to reduce GHG emissions and address global warming in accordance with long-term targets validated by internationally respected organizations.

Meanwhile, global warming is intensifying the severity of climate change around the world, and this is expected to have a major impact of corporate performance over the long term. If warming proceeds unchecked, the weather disasters that have already become apparent will be even more severe. Moreover, sea levels are expected to rise, having a significant impact on business sites located in coastal areas.

Casio's business partners in the supply chain may also be affected by these developments, and disruptions to parts procurement, logistics, and other business operations can be expected.

In April 2021, Casio announced its support for the recommendations of the TCFD, which sets out standards for disclosure on business impacts related to climate change, and began disclosing information on the impact of climate change on its business activities. In the second year of disclosure, Casio decided to identify risks and opportunities involved in the long-term impacts of climate change using the scenario analysis method, to assess the impact of these risks and opportunities, and to consider the measures to be taken in response.

Casio held five rounds of scenario analysis between February and May 2022 for its four core businesses: timepieces, education, electronic musical instruments, and systems equipment. Casio appointed core staff from product planning, mechanical design, procurement, logistics, and sales and marketing divisions covering the entire value chain to conduct the analysis and contracted an outside expert to facilitate the process. Since discussions faced some limitations due to the need to hold the main sessions online to prevent the spread of COVID-19, voluntary meetings were set up for further study of each product item. As a result, the assessments of impact became more varied in each session due to the differences in provision of value to users, market, and strategy between businesses. The final session closed with presentations to the officers responsible for each business and the officer responsible for finance and investor relations.

The results of the sessions were compiled by the Sustainability Promotion Office and, after deliberation by the Board of Directors, "[Results of Assessment based on Scenario Analysis](#)" was added to the section on Information Disclosure Based on TCFD Recommendations on Casio's Sustainability website.

Casio will continue to carry out scenario analysis on a regular basis in the future to raise the level of precision as well as to further enhance the quality and quantity of information disclosed.

## Business Sites Initiatives

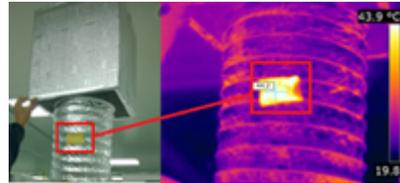
### | Initiatives at Casio (Thailand) Co., Ltd.

#### Using insulation to reduce energy use

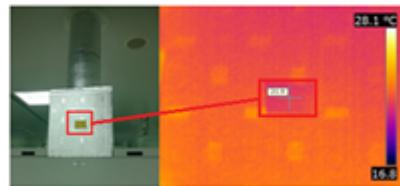
The company reduced the air-conditioning cooling load by installing insulation around the exhaust ports of the reflow system and dryer to block heat conduction and this has helped to reduce greenhouse gas emissions.



Reflow systems insulation



Before installation  
(surface temperature 44.2°C)



After installation  
(surface temperature 21.9°C)

Surface temperature decreased from 44.2°C to 21.9°C.

#### Introducing buses to reduce CO<sub>2</sub> emissions

The company has 40 buses that it provides for employees to use for their daily commute. Employees use these commuting buses and this has helped to reduce greenhouse gas emissions.



Commuting buses at Casio (Thailand)

#### Installing a unique solar system

Casio (Thailand) has installed its own photovoltaic system to take advantage of the tropical sunlight. Electric power generated by the solar panels is used to power electric roof fans to draw heat out of buildings, as well as for powering daytime lighting in a warehouse and agitating a reservoir for oxygenation.



Solar panels



Electric rooftop exhaust fans for heat discharge



Daytime warehouse lighting



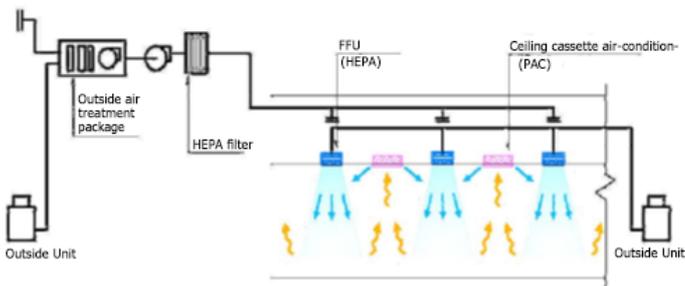
Reservoir agitator for air circulation

## | Initiatives at Yamagata Casio Co., Ltd.

### Introducing the latest energy-saving air-conditioning systems

A new watch plant that started operations in May 2018 uses the latest energy-saving air-conditioning systems, such as an air-conditioning system with several air-conditioners with FFUs\*1 and ceiling cassettes, zoning and separate air-conditioning for clean rooms. These systems enable efficient operation according to the production situation.

\*1 FFU: Fan-filter unit. A system that passes air sucked in by the fan through a filter to purify it before sending it out as clean air.



Air-conditioning system at Yamagata Casio



Clean room with latest air-conditioning system

## | Initiatives at Hachioji R&D Center

The Hachioji R&D Center has installed automatic blinds and grows a green wall of vegetation at its facility to reduce CO<sub>2</sub> emissions. The automatic blinds calculate the location of the sun, use sensors to detect the strength of the sunlight, and open and close automatically, thereby reducing the cooling and heating load. Since 2012, the Center has also grown a green wall of vegetation as a summertime energy-saving measure in an effort to reduce the cooling load even more. Through a process of trial and error to balance watering, fertilization, and sunlight, currently, the green wall (planted with two kinds of morning glories) grew splendidly to a size of 8.5 meters wide by 10 meters tall. Local residents even stopped by to take photos of it. This initiative to grow a green wall of vegetation has entered Hachioji's Green Wall of Vegetation Contest in the "organization grouping" since 2017 and won awards two years running, including the first place award in 2017.



Green wall of vegetation at the Hachioji R&D Center



Award certificate and first place gift

## | Installation of LED Lighting

Casio is installing LED lighting at its business sites to reduce electricity consumption. Thus far, it has installed LED lighting at many Casio sites, including the Hatsudai Head Office, Hamura R&D Center, Hachioji R&D Center, Yamagata Casio, Casio Electronics (Shenzhen) Co., Ltd., Casio (Thailand) Co., Ltd., Casio America, Inc., and Casio Electronics (Shaoguan) Co., Ltd., and other sites. The installed LED lighting has brought about substantial CO<sub>2</sub> emissions reductions.



LED lighting in Casio Electronics  
(Shenzhen)'s lobby



LED lighting in Casio (Thailand)'s plant



LED lighting in Yamagata Casio's plant

## Logistics Process Initiatives

Casio is actively reducing its environmental impact by striving to reduce CO<sub>2</sub> and waste emissions arising from logistics. In order to reduce CO<sub>2</sub> emissions in the logistics process, Casio is promoting the following three action plans.

- Shortening transport distances: Considering and promoting direct shipping to distribution centers in Japan from manufacturing sites outside Japan and direct shipping to business partners in quantity lots
- Promoting a modal shift: Actively using modes of transport with low environmental impact such as rail for transport between sites
- Improving loading efficiency and reducing transport volume: Improving the packaging design of electronic dictionaries, musical instruments electronic cash registers, and other products, and reducing the volume of packaging

### | Four products obtain Eco Rail Mark certification

On February 28, 2013, Casio obtained Eco Rail Mark certification from the Railway Freight Association for four products: clocks, digital pianos, electronic keyboards and electronic cash registers.

The Eco Rail Mark indicates that a product or company is proactively addressing global environmental issues by using rail freight transport. Rail transport produces about one-thirteenth of the CO<sub>2</sub> emissions of commercial trucking, making it an environmentally friendly method of transport with a low environmental impact.

The criteria for certification are utilization of rail for at least 30% of land freight transport for distances of 500km or more for a product, and utilization of rail for at least 15% of land freight transport for distances of 500km or more for a company.

Casio obtained Eco Rail Mark certification as a company in October 2009 and successfully obtained product certification as a result of further expanding rail transport due to the relocation, amalgamation and closure of business sites.

Casio now actively uses rail mainly for inhouse transport from its logistics center in Saitama Prefecture to distribution centers in Osaka and Fukuoka. Going forward, Casio will make active efforts to reduce environmental impact by pursuing environmentally friendly transport.



Eco Rail Mark



Promoting a modal shift to rail transport



Environmentally friendly rail containers

# Building a Recycling Society



## Approach and Policy

### | Social Issue

Rapid economic growth brings with it problems such as the depletion of natural resources, the destruction of nature due to extraction of resources, and pressure on landfill sites for waste and pollution around them, accompanying the increase in resources consumed. In this situation, the 3Rs (Reduce and Reuse waste and Recycle resources) have become increasingly important in order to utilize the world's finite resources effectively. In recent years, moreover, the low effective utilization rate for waste plastic and environmental pollution caused by ocean plastic waste have become issues of global concern.?

Recognizing this social background, Casio is moving ahead with various initiatives, including activities in its own business as well as activities that include suppliers and cover the entire product lifecycle.



### | Importance for the Casio Group

Amid more widespread depletion of natural resources and the destruction of nature caused by the extraction of resources, investment in new natural resources for manufacturing products not only exacerbates the depletion of resources, but can also increase the impacts on the environment and ecosystem. These impacts may also lead to risks such as increases in the cost of raw materials.

The recycling rate of the waste produced by Casio's business activities has reached more than 80% over the past few years. However, about 15 or 20% of waste is still disposed of in the environment without being recycled. This includes plastics and other waste which remain in the environment for long periods of time, and their impact on environmental pollution and ecosystems is a cause for concern.

The same concerns that apply to the waste produced by our own business activities apply to the disposal of products after use by customers. It can be said that proactive efforts to ensure recycling them into resources are required. For the Casio Group, which operates a broad range of consumer businesses, this is also important in terms of securing customer trust.

## | Targets and Action Plan

Casio is working to build a recycling-oriented society both through product initiatives and initiatives in business activities.

In product initiatives, the company has set a target for expanding the number of Casio Green Star Products, a designation which indicates environmentally friendly product manufacturing through the various stages from development and design to use of the product by customers, to recycling after use.

In initiatives in business activities, Casio has set a target of zero emissions\* of waste produced by its business activities. As part of its efforts to achieve zero emissions, Casio has set targets for reducing the amount of waste produced by its business activities and increasing the recycling rate of such waste. In addition, the Company has set a target for reducing water usage in business activities. Casio is also working on this issue by taking initiatives for voluntary collection and recycling of used products and components disposed of as a result of product use.

\* Casio Group's definition of zero emissions:

Landfill disposal rate = (final landfill disposal amount ÷ amount of waste generated) × 100 is 1% or less.

## | Medium-Term targets and Performance

Evaluation ◎: All targets met, ○: Most targets met, △: Remaining issues outweigh results, ×: No progress made

Medium and long-term targets	FY2022 Target	FY2022 Performance	Evaluation	FY2023 Targets
Increase Casio Green Star product sales ratio to 90% by fiscal 2026	Maintain the Casio Green Star product sales ratio at 80% or more	Casio Green Star Product sales ratio: 76%	△*1	Raise the Casio Green Star product sales ratio at 80% or more
Achieve zero emissions of waste at business sites by FY2031	Reduce the amount of waste generated by entire Casio Group (including valuable waste) by at least 2% compared to FY2020	Reduced waste generated by Casio Group (including valuable waste) by 28% compared to FY2020	○	Reduce the amount of waste generated by entire Casio Group (including valuable waste) by at least 3% compared to FY2020
* Casio Group's definition of zero emissions: Landfill disposal rate = (final landfill disposal amount ÷ amount of waste generated) × 100 is 1% or less.	Achieve a recycling rate for Casio Group site waste of at least 95%	Recycling rate for Casio Group: 96%		Achieve a recycling rate for Casio Group site waste of at least 96%
—	Reduce water usage for Casio Group by at least 1% compared to FY2020	Reduced water usage for Casio Group by 43% compared to FY2020	○	Reduce water usage for Casio Group by at least 3% compared to FY2020

\*1 △ evaluation determined based on at least 80% achievement of the target figure.

# Product Initiatives

## | Approach and Policy

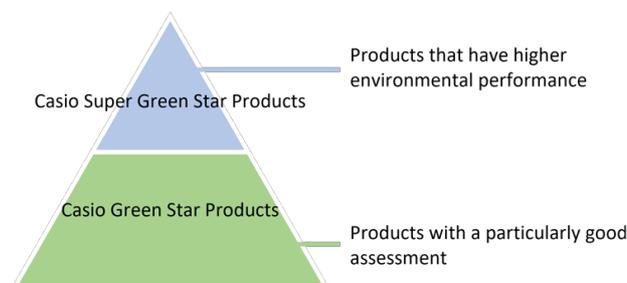
Casio pursues product development with consideration for environmental impact throughout the product lifecycle, from the product development and design stage, to use by customers, to disposal and recycling after use.

Casio began its own product assessment program in 1993, commencing assessment of the environmental impact of new products and certifying those that met certain standards as Casio Green Products. This process produced a large number of environmentally friendly products.

In 2009, Casio began its program to certify Casio Green Star Products under more rigorous assessment standards. In 2016, a further program to certify Casio Super Green Star Products under even higher assessment standards was also commenced. Since then, Casio has continued to develop products with consideration for environmental impact.

## Casio Green Star Products System and Assessment Items

Product environmental assessment items	
1. Promotes recycling	7. Recyclability of batteries
2. Designed for recycling	8. Recycling label on batteries
3. Components of Products can be separated, disassembled	9. Regulatory compliance
4. Improved recycling	10. Components of packaging can be separated, disassembled
5. Improved energy efficiency	11. Regulated use of packaging materials
6. Regulated use of chemical substances	12. Preserves the natural environment



[Click here](#) to see products certified as Casio Green Star Products and Casio Super Green Star Products to date.

Casio takes measures to consider environmental impact for each product, and these are expected to have a positive effect on building a recycling-oriented society.



PRO TREK using biomass plastic



Packaging materials using recycled paper as main raw material

Casio is also working to build a recycling-oriented society by pursuing Eco Mark certification of its products and registration of its products under Japan's Act on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Act on Promoting Green Procurement).

## | Targets and Performance

Casio has set a target for Casio Green Star Products and Casio Super Green Star Products to account for 90% of sales by fiscal 2026. Casio has also set target figures for each fiscal year and is verifying the status of achievement.



Medium and long-term targets	FY2022 Target	FY2022 Performance	Evaluation	FY2023 Targets
Increase Casio Green Star Products' share of sales to 90% by fiscal 2026	Maintain the Casio Green Star Products' share of sales at 80% or more	Casio Green Star Product' share of sales: 76%	△*1	Raise the Casio Green Star Products' share of sales at 80% or more

\*1 △ evaluation determined based on at least 80% achievement of the target figure.

## Initiatives in Business Activities

Casio's efforts to help build a recycling-oriented society are guided by its targets to achieve zero emissions of waste and reduce water usage by the Group. As part of its efforts to achieve zero emissions, Casio strives to reduce the amount of waste produced by its business activities and to increase the waste recycling rate, as well. The company is also taking initiatives for voluntary collection and recycling of used products.

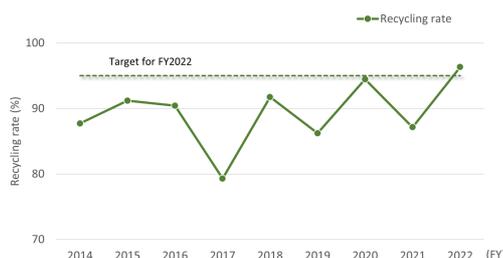
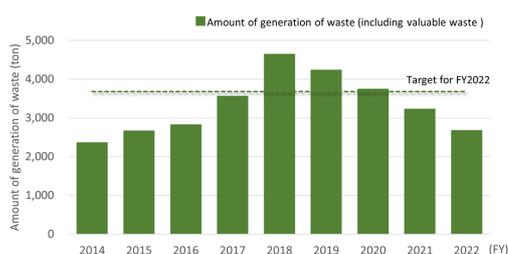
## Reducing and Recycling Waste

### | Approach and Policy

The Casio Group has set a zero-emissions target for waste produced by its business activities and is working to build a recycling-oriented society. As part of its initiatives for achieving zero emissions, Casio has set targets for reducing waste produced by its business activities and for promoting the recycling of such waste.

### | Targets and Performance

Casio has set targets for each fiscal year and is verifying the status of achievement. For fiscal 2022, Casio set targets to reduce the amount of generation of waste (including valuables) by at least 2% compared to fiscal 2020 and to achieve a recycling rate of 95% or higher.



In fiscal 2022, although the impact of COVID-19 on activities at sites continued, there was an increase in waste at some sites due to the recovery in activity levels. On the other hand, as a result of carrying out improvement activities such as sorting and setting things in order at each site, the amount of generation of waste (including valuable waste) at the Group overall decreased from the previous fiscal year, and the recycling rate also increased, reaching the targets for fiscal 2022.

Medium and long-term targets	FY2022 Target	FY2022 Performance	Evaluation	FY2023 Targets
Achieve zero emissions of waste at business sites by FY2031	Reduce the amount of generation of waste(including valuable waste), etc., by entire Casio Group by at least 2% compared to FY2020	Reduced the amount of generation of waste(including valuable waste) by Casio Group by 28% compared to FY2020	○	Reduce the amount of generation of waste(including valuable waste) by entire Casio Group by at least 3% compared to FY2020
	Achieve a recycling rate for Casio Group site waste of at least 95%	Achieved a recycling rate for Casio Group: 96%	×	Achieve a recycling rate for Casio Group site waste of at least 96%

# Reducing water usage

## | Approach and Policy

Water resources are essential in maintaining human activities. However, in recent years, water-related risks, including increasing demand due to population growth and decreasing supply due to climate change, have become a cause for concern, and Casio business activities could face similar risks.

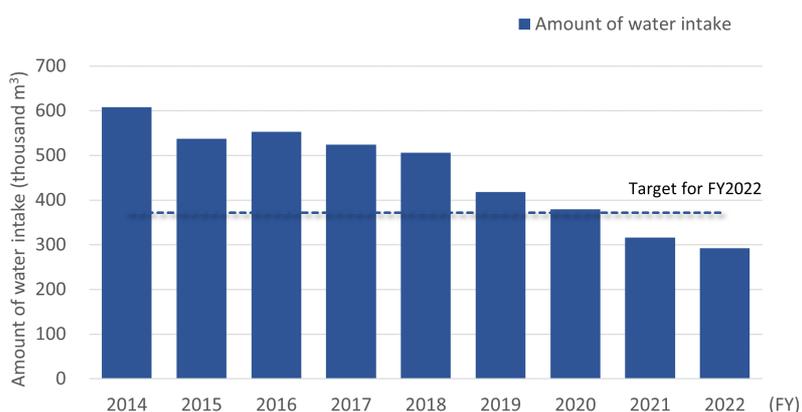
The Casio Group uses a limited amount of water in production activities, to wash a few of the components in production activities. Use for applications such as air conditioning and domestic-type use account for the majority of the water used by the Casio Group. The domestic-type use of water is important in terms of maintaining hygienic at its sites.

When Casio conducted an evaluation of water stress levels\*1 with a focus on access to water for hygiene at production sites with relatively high water usage, one out of all the Group's production sites was found to be under water stress. Despite the relatively low level of overall water stress, Casio has set a target of continually reducing water usage for the entire Group, and is working to reduce risk related to use of water resources.

\*1 The Baseline Water Stress indicator presented in WRI Aqueduct Water Risk Atlas 3.0. Casio assessed sites where the Baseline Water Stress is High or more as under water stress.

## | Targets and Performance

Casio has set targets for each fiscal year and is verifying the status of achievement. For fiscal 2022, the company set a target of reducing water use by at least 2% compared to fiscal 2020.



In fiscal 2022, although the impact of COVID-19 on activities at sites continued, there was an increase in water usage at some sites due to the recovery in activity levels. On the other hand, as a result of efforts to reduce water use, including water saving measures, at each site, water usage at the Group overall decreased from the previous fiscal year and the recycling rate also increased, reaching the targets for fiscal 2022.

FY2022 Target	FY2022 Performance	Evaluation	FY2023 Targets
Reduce water usage for Casio Group by at least 3% compared to FY2020	Reduced water usage for Casio Group by 43% compared to FY2020	○	Reduce water usage for Casio Group by at least 3% compared to FY2020

## Collection and Recycling

Casio is working to build a recycling-oriented society by voluntarily collecting and recycling post-use products and components disposed of as a result of product use, and promoting the recycling of resources.

### | Product recycling efforts

The collection of used products includes activities that are performed to comply with relevant laws, and activities that are performed by Casio voluntarily. This section introduces Casio's voluntary activities.

#### Recycling with No Waste Disposal

Casio is recovering and dismantling used tape cartridges and ink ribbon cassettes, and utilizing the materials to make the same products again. Casio actively requests the cooperation of product users in this effort.



### | Product Recycling in Europe

European recycling regulations include the Waste Electrical and Electronic Equipment (WEEE) Directive, the Battery Directive and the Packaging Directive.

These regulations provide a framework under which manufacturers collect and recycle end-of-life products and are obliged to bear the costs of doing so.

Casio fulfills its obligations by participating in collection and recycling organizations with government authorization.

# Living in Harmony with Nature



## Approach and Policy

### | Social Issue

The international community agreed to the Aichi Biodiversity Targets at CBD/COP10 in 2010, seeking to halt the global deterioration of biodiversity, and various efforts were made around the world through the target year of 2020. Unfortunately, the consensus today is that almost none of the targets were achieved.

#### Global Biodiversity Outlook 5

Based on the above conclusion, the international community is developing a TNFD framework that requires companies to disclose nature-related risks and opportunities in order to leverage funding markets for corporate activities to halt biodiversity deterioration.

#### Task Force for Nature-related Financial Disclosures (TNFD)

Despite the benefits people receive from ecosystems on a daily basis, such as water, air, and food, it is difficult to notice the ongoing degradation of these ecosystems. People often do not see biodiversity as an issue relevant to their own lives. One reason for this is that in many cases, the places where the ecosystems that produce the benefits exist are located far from the urban areas where the majority live.

For this reason, people need to view biodiversity issues intentionally as problems in which everyone is involved. When making decisions or taking actions in business and various day-to-day settings, it must become second nature to consider the impacts on biodiversity. In other words, biodiversity concern must be "mainstreamed."



## | Importance for the Casio Group

Casio's main manufacturing process is the assembly of final products. Most of the raw materials and component devices used in its products are purchased from suppliers outside the Group or manufactured on contract. For this reason, the risk that the Group's operations will directly impact biodiversity is limited. Biodiversity risks in the supply chain outside the Group, on the other hand, are another matter. If problems were to occur in the supply chain, they would represent a risk to Casio's procurement of raw materials and devices, because Casio cannot directly control them, since they occurred outside the Group.

In addition, the issue of ocean plastic waste, which has been the focus of much attention in recent years, has not had a significant direct impact on Casio because most of its main products are durable consumer goods. However, we use single-use plastic materials to maintain the quality of our products, and if laws and regulations are tightened, there is a risk that the plastic materials we have been using will no longer be available.

Meanwhile, Casio sells the G-SHOCK and Baby-G watch brands, which stand up to use in harsh natural environments, as well as the PROTREK watch brand, which is equipped with sensors that are useful in outdoor activities. With these brands, Casio has worked with environmental organizations for many years to produce collaborative products every year, giving a boost to their environmental protection activities and raising awareness of these organizations. While indirect, this is nevertheless a contribution of our core business to mainstreaming the social issue of biodiversity, and it is also an effective opportunity for Casio to improve its brand strength in the market and differentiate itself from its competitors.

## | Targets and Action Plan

In March 2011, Casio formulated the Casio Group Biodiversity Guidelines. In the 10 years that have passed since then, international demands regarding biodiversity have changed. This change is due to the international failure to achieve the Aichi Biodiversity Targets as mentioned above, the problem of ocean plastic pollution, and the outbreak of the COVID-19 pandemic, seen as a disease transmissible between animals and humans, among other factors.

It is expected that responses to these issues will be presented as future international goals in the post-2020 Biodiversity Framework to be adopted at the 15th Conference of the Parties (COP15) to the Convention on Biological Diversity (CBD), which has been postponed to December 2022. With a firm grasp of these international trends, Casio plans to reassess its medium- and long-term policies and targets, including these guidelines, through 2024.

## 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

#### 1. Business Activities:

Casio will help to build a more sustainable world by creating and providing products and services that encourage consumers to care more about the environment. This will be done by learning from nature and developing technologies that utilize this wisdom.

- Facilitating a paperless society
- Contributing to resource saving by developing original technology
- Developing products with care for nature

#### 2. Impact Assessment:

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.

- Actively taking initiatives for proper procurement of parts (leather, wood, paper, etc.) and materials (mineral resources, etc.) that depend on ecosystem services.
- Conducting questionnaire surveys across the supply chain in order to check ecosystem protection efforts for parts and materials that make up products.
- Establishing impact assessment methods (checklists and indices) for the Casio Group

#### 3. Information Disclosure:

Casio will strive to improve social awareness of biodiversity, by actively disclosing the results of its environmental activities.

#### 4. Community Involvement:

Casio will actively support activities that contribute to biodiversity preservation by NPOs and NGOs, government agencies, and local citizens.

#### 5. Full Employee Participation:

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.

## Casio Group Paper Procurement Policy

**Purpose:** To preserve biodiversity by protecting and sustainably using the forest resources which provide the raw material for paper.

**Scope:** All paper products procured by the Casio Group worldwide

**Policy:** Casio will procure paper for use in its business activities according to the following standards:

1. Paper must be made from trees harvested in accordance with the laws and regulations governing the logging area concerned.
2. Products must not come from companies that are destroying any forest with high conservation value or that are a source of serious environmental or social issues.
3. Priority must be given to reliable certified paper or recycled paper.

## Target and Performance

Evaluation ◎: All targets met ○: Most targets met △: Remaining issues outweigh results ×: No progress made

Theme	Medium and long-term targets	FY2022 Targets	FY2022 Performance	Evaluation	FY2023 Targets
Living in harmony with nature	Increase the use of sustainable paper to 100% by FY2031	Ensure that 80% of product catalog paper used in Japan is paper from certified forests	70.4%	△	Examine re-setting of medium and long-term targets
		Continue to re-examine medium and long-term targets, including the definition of sustainable paper	Collected and analyzed world trends	△	

Regarding fiscal 2022 circumstances related to medium- and long-term targets, user needs for types of product catalogs that are distributed for free at stores and other locations have greatly changed due to the COVID-19 pandemic. Numerical values continue to be calculated, but the actual contents of the medium- and long-term targets will be reevaluated.

### | Structure

In 2015, Casio identified three environmentally material issues. To address one of these, "Living in harmony with nature," the third environmentally material issue, Casio established the "M3 committee," which is an objective of the ISO 14001 environmental management system, in 2017. The M3 committee is driving Casio's adoption of paper from certified forests for product catalogues used in Japan. It conducted a biodiversity survey of Casio's main business sites in Japan, leading to the discovery of rare plants already growing on the company's property, species found on the Red Lists published by Japan's Ministry of the Environment. To promote the mainstreaming of biodiversity from within the company, the M3 committee carry out conservation activities emphasized employee volunteerism such as protection teams for these rare plants and the Casio Forest.

With growing public expectations for Casio to show leadership on social issues through its business activities, Casio will strive to further link its efforts for mainstreaming biodiversity to the core operations of its business divisions, carry out an education campaign (WILD MIND GO! GO!) to encourage biodiversity mainstreaming outside of the company, and further expand and strengthen initiatives that promote grassroots volunteerism among employees.

# Contributing Through Casio's Business to Social Issues Related to Biodiversity

## | Lateco Label Writer Reduces Plastic Waste

The issue of plastic waste in the oceans has become increasingly important as a global environmental problem. Ocean waste includes discarded petroleum-derived fishery materials, as well as waste such as disposable plastic containers and packaging originating on land that flow into the ocean via rivers. It is becoming clear that such waste has an impact on marine ecosystems, and there are concerns about its impact on the marine products used as food. For its new Lateco label writer, Casio redesigned the conventional model to minimize wasteful margins on the edge of the tape, while creating a tape cartridge that can be reused. As a result, the amount of plastic waste generated by using Lateco has been significantly reduced compared to previous Casio models.



This initiative was recognized in 2021 when Lateco tape won Eco Mark Award 2021 Best Product. The product is also registered with the Plastics Smart Campaign of Japan's Ministry of the Environment.

[Lateco product information \(in Japanese\)](#)

[Eco Mark Award 2021 Best Product \(in Japanese\)](#)

[Plastics Smart Campaign at Japan's Ministry of the Environment](#)



Plastic waste is significantly reduced when changing the tape  
Cartridge is reused



	Nameland tape cartridge	Lateco tape spool
1 piece	25 g	0.6 g
400 pieces	1,006 g	24 g
100 pieces	2,514 g	60 g

Plastic waste  
**Reduced by approx. 97%\***

Conventional model waste versus Lateco

\* Nameland 18-mm tape cartridge waste compared to Lateco 18-mm tape spool waste

Conventional model waste versus Lateco

As a partner in the Plastics Smart Campaign by Japan's Ministry of the Environment, in March 2022 Casio also concluded an agreement on collaboration to reduce plastic waste with Higashine City, Yamagata Prefecture. This followed an earlier agreement we concluded with the town of Hayama in Miura District, Kanagawa Prefecture in March 2021. Hayama is implementing the Hayama Green Program as an environmentally mindful initiative. This initiative has much in common with our recognition of the issue of plastic waste and the initiatives we are taking to reduce it. By concluding this agreement, Casio will work on mutual cooperation and further promotion. Yamagata Casio, a Casio group company, is also taking part in the agreement with Higashine City and has plans to participate in a variety of activities in Higashine City in the future.

[Agreement on Collaboration to Reduce Plastic Waste concluded with Higashine City, Yamagata Prefecture](#)

[Agreement on Collaboration to Reduce Plastic Waste concluded with Hayama \(in Japanese\)](#)

**Employee Volunteers Participate in Litter Cleanup Event**

For three consecutive years since 2019 employee volunteers primarily from Lateco-related departments participated in the Furusato Cleanup in Arakawa. The event sought to foster greater understanding of the social issue of ocean plastic waste through hands-on activity.

This event usually draws several hundred participants, but the organizing office has held a smaller event for the past two years as a measure to control the spread of COVID-19. Under these circumstances, the energetic collection of waste that had drifted ashore or been illegally dumped in Arakawa in cooperation with many other people while taking infection control measures earned a certain degree of recognition.

[Furusato Cleanup \(in Japanese\)](#)



Collecting a large volume of plastic bottles that had drifted ashore



Sorted and bagged bulky garbage



A group photo of all participants including Casio employee volunteers

## | Preserving Biodiversity through Collaboration with Environmental Protection Groups

Casio has developed many brands of watch products such as G-SHOCK, BABY-G, and PROTREK.

These Casio brands deliver functions, performance, and designs suited to the many diverse activities and situations in which people use their watches. Many of those envisioned situations are beautiful and sometimes harsh natural landscapes, including a wide range of land and ocean environments. As the manufacturer of these brands, Casio believes in its responsibility to protect natural environments. Casio leverages its main business activities to achieve this and has been developing collaboration watch models with a number of environmental protection groups each year. The name recognition and product appeal of the Casio brand helps energize each collaborating group's environmental protection activities and public awareness of them.

### **G-SHOCK and BABY-G Collaboration Models for the "Love the Sea and the Earth" Project**

Based on a theme of "Love the Sea and the Earth," Casio has developed G-SHOCK and BABY-G brand products with environmental protection groups such as the International Cetacean Education Research Centre (ICERC Japan), Aqua Planet, and Earthwatch Japan, and Casio also supports these groups by providing these products and sharing information.

Casio's support of ICERC Japan, through the ongoing creation of dolphin and whale watch models that began in 1994, reached its 28th year in 2022.



“Love The Sea And The Earth” logo

ICERC Japan: Collaboration models in 2022



Aqua Planet collaboration model in 2022



Earthwatch Japan collaboration model in 2021

**Casio Coral Field**

In 2018, Casio began providing support for Aqua Planet, an NPO that preserves and restores coral, which is chaired by actress Ritsuko Tanaka. In January 2018, the Casio coral field was established in the seas of Ishigaki, Okinawa Prefecture, and 200 coral “seedlings” were planted with the objective for them to reproduce in three years’ time.

The Casio coral field lies to the south of Ishigakijima island, Okinawa Prefecture in shallow seas about 4 meters deep at high tide. The coral coexists with a phytoplankton called zooxanthella, and coral seedlings from more than seven resilient varieties, including Acropora Copiosa Nemenzo in the genus Acropora of the family Acroporidae, were planted.

These coral seedlings were ones that had been newly collected with permission and divided seedlings cultivated in other coral fields. More than three years after planting, the mature coral is now home to small fish.



Casio Coral Field (May 2020)



Casio Coral Field (January 2018)

## Contributing to Coral Reef Conservation Activities with Logosease

The Kikaijima Reef Check was held on October 18, 2020 to ascertain the health of the coral reef on the island of Kikaijima in Kagoshima Prefecture. Yamagata Casio assisted by providing Logosease diver communication devices.



Underwater transceiver, Logosease

Logosease



Reef Check is a coral reef monitoring program conducted on a volunteer basis using an internationally uniform technique to investigate the soundness of coral reefs worldwide. The purpose is to reduce the human impact on coral reefs by recording the condition of fish and other creatures living on coral reefs as well as the condition of the seafloor to assess the health of coral reefs and raise awareness about their protection.

Since the recruiting of volunteer divers from outside the island was curbed because of COVID-19, the Reef Check was conducted only by divers from WWF JAPAN, the KIKAI Institute for Coral Reef Sciences, Amami Marine Life Research Association, Yonemori Diving Service, and divers from the island.

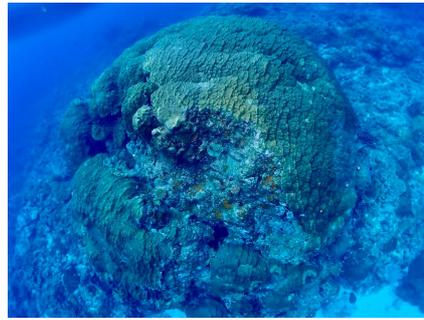
The Reef Check was conducted in good weather with visibility around 40m. The health of the coral reef, which was everyone's concern, was found to be unchanged from 2019. It was still in good condition with little bleaching.

Yonemori Diving Service provided photos of the Reef Check. It commented that, "Logosease underwater transceivers are essential to communication underwater, and they were extremely valuable during the Reef Check. Basically, the Reef Check is conducted in pairs or groups of three, so we appreciate being able to precisely communicate by voice when confirming, collaborating, and giving signals."



Source: KIKAI Institute for Coral Reef Sciences





## | PRO TREK Collaboration Model with The Nature Conservation Society of Japan (NACS-J)

In 2018, Casio began providing support for The Nature Conservation Society of Japan (NACS-J) through its outdoor watch brand PRO TREK. By releasing watch models in collaboration with the NACS-J, Casio has been supporting the conservation of specific species.

For the first such effort, in 2018, Casio released a collaboration model with the motif of a golden eagle (listed as an endangered species (IB) in the Japanese Ministry of the Environment's Red Data Book 2019). In the second year, Casio debuted a collaboration model featuring the *Shijimiaeoides divina* (a butterfly listed as an endangered species (IA) in the same book). In 2020, a collaboration model was launched showcasing loggerhead turtles (listed as an endangered species (IB) in the 2020 book). In 2021, a collaboration model was released with the motif of Oze, which is the birthplace of the predecessor to the NACS-J. In 2022, Casio released a collaboration model with the motif of a grey-faced buzzard (listed as an endangered species (II) in the 2020 book).



## Biodiversity Preservation at Business Sites

In 2017, Casio commissioned an expert outside agency (Ryokusei Research Institute Inc.) to conduct a biodiversity survey at the Group's main sites in Japan. As shown in Table 1, the results found that many species of insects and plants make their home at these sites. Rare species including Golden Orchid (*Cephalanthera falcata*), which is included on the Ministry of the Environment's species Red List, and Silver Orchid (*Cephalanthera erecta*) and stalked adder's-tongue (*Ophioglossum petiolatum*), both of which are on Tokyo's Red List of threatened species, were found at the Hamura R&D Center in Hamura, Tokyo. Rare species including the plant *Lespedeza tomentosa* Sieb. Ex Maxim. And the insect *Canthophorus niveimarginatus* (Scott), which are included on Yamanashi Prefecture's Red List of threatened species, were found at the Yamanashi Office of Yamagata Casio Co., Ltd. in the city of Fuefuki. In light of these results, employee volunteers are continuing to undertake conservation activities with advice from the expert agency.

At the Hamura R&D Center, members of the protection team formed by employee volunteers are working on protection from pests and trials of onsite propagation, including artificial pollination, and other measures to avoid the loss of rare species. They have also observed organisms on the grounds throughout the seasons and confirmed new individuals of the Silver Orchid, which were not found during the survey by outside experts. At the Yamanashi Office of Yamagata Casio, employee volunteers are working on management of green space (grass cutting) that is suited to rare species and to propagate individuals, as well as to remove non-native species that have a negative impact on preserving the environment for rare species.



Golden Orchid (*Cephalanthera falcata*) on  
April 25, 2022



Newly discovered individual of Silver Orchid  
(*Cephalanthera erecta*) on April 28, 2022  
(Hamura R&D Center)



Adder's-tongue (*Ophioglossum petiolatum*) on  
April 22, 2022



*Lespedeza tomentosa* in August  
20, 2019



*Canthophorus niveimarginatus* and *Thesium chinense*, which is the larval food plant for  
the insect on April 22, 2022

(Yamanashi Office of Yamagata Casio)

## | Results of a survey of biodiversity at main business sites in Japan (Table 1)

site	Number of species		Remarkable insects and plants
	Insects	Plants	
Casio Computer Co., Ltd.			
Headquarters	55	82	
Hamura R&D Center	105	187	Plants: Golden Orchid, Silver Orchid, ophioglossum petiolatum
Hachioji R&D Center	51	110	Plant: Ophioglossum petiolatum
Yamagata Casio Co., Ltd.			
Headquarters	82	173	
Yamanashi	91	150	Insect: Canthophorus niveimarginatus Plant: Lespedeza tomentosa
Casio Business Service Co., Ltd. (Kofu)	82	160	Plant: Rorippa cantoniensis

[List of plants at the Casio Group's main sites in 2017 \(PDF / 369KB\)](#)

[List of insects at the Casio Group's main sites in 2017 \(PDF / 328KB\)](#)

## | Preservation Activities at Sites

Please visit the following pages to learn about efforts being made at each site.

[Hamura R&D Center](#)

[Yamanashi Office of Yamagata Casio](#)

## Preservation Activities at Hamura R&D Center

During the flowering season in spring 2020, the Hamura R&D Center was not able to observe and record the growth of the Golden Orchid and Silver Orchid on its grounds, as it had planned to, due to the COVID-19 pandemic. However, in 2021, workplace measures to address the pandemic have become established, and the protection team of employee volunteers has resumed its activities while taking precautions against infection.

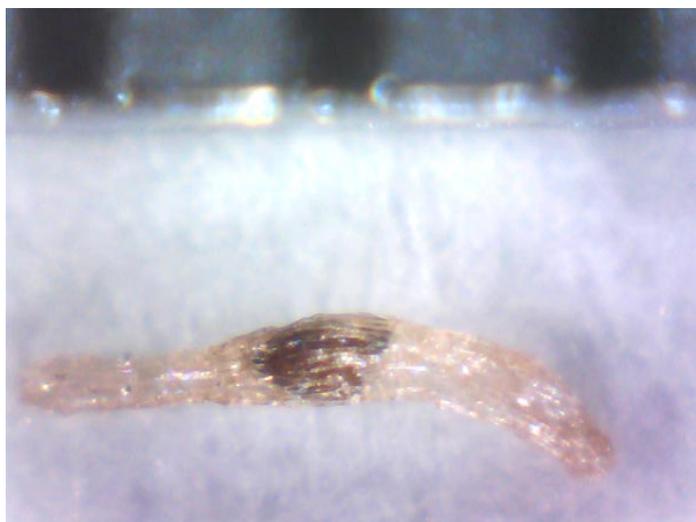


Artificial pollination and placing of non-woven fabric nets over Golden Orchid[AM1] (April 26, 2022)



Non-woven fabric with handmade observation window (April 28, 2022)

As a new effort starting in the 2021 growing season, the protection team carried out artificial pollination and placed nets over the flowers, with a view to increasing the population of the Golden Orchid and Silver Orchid on the grounds. Though the purpose of the netting is to avoid the risk of harm to the propagation of the Golden Orchid by pests such as the *Japanagromyza tokunagai* (Sasakawa) leaf miner, the goal was also to prevent the impact of the aphids that appear every year. In the 2022 season, based on its reflections on the 2021 season, the protection team switched from using kitchen utensil drainage nets to slightly larger non-woven fabric nets with handmade windows that can be opened and closed using a zipper to make it easier to observe the interior. The team also secured the non-woven fabric to the ground using sheet presser studs for agricultural materials to eliminate the gap between the net and the ground.



Golden Orchid seed: 1 gradation 0.5mm (December 14, 2021)

In 2021, the protection team successfully carried out artificial pollination and netting manually while referring to reference literature and was able to collect seeds. The team will need to carefully consider where and how to sow the seeds on the grounds to achieve propagation and reduce the risk of losing rare species, taking into account the long-term operation of the Hamura R&D Center in the future. If possible, the team would also like to aim for registration under the Nature Symbiosis Site (tentative name) system to be implemented by Japan's Ministry of the Environment.

Ministry of the Environment's Nature Symbiosis Site (tentative name) system trial

## Preservation Activities at the Yamanashi Office of Yamagata Casio

It is known that the rare plants on the grounds of the Yamanashi Office of Yamagata Casio are species that inhabited the grasslands used in rural life up until around the year 1900. Habitat for these species has shrunk due to the disappearance of management conditions suitable for them and the receding grasslands in modern times. However, the management of green space (grass cutting) on the grounds of the Yamanashi Office happens to be similar to the artificial grassland management of past times. As a result, these species have been preserved.

From this perspective, in addition to the plants *Lespedeza tomentosa* (which is listed as an endangered species by the Ministry of the Environment and by Kanagawa Prefecture), and *Thesium chinense* (which is the food plant for the insect *Canthophorus niveimarginatus*), *Potentilla chinensis*, Siberian *Lespedeza juncea*, and *Lespedeza virgata* have been identified as relatively rare grass species for protection based on the advice of experts.

### Management plan for preservation and improvement of grassland biodiversity (in Japanese)



Chinese cinquefoil



Siberian Lespedez



Lespedeza virgata

In light of the rare species growing in the grounds of the Yamanashi Office of Yamagata Casio, we are continuing the management of green space (grass cutting) that has not changed significantly from the past as a specific protection measure. The protection team of employee volunteers is also working to raise seedlings of rare species from seeds collected in the fall and to propagate individuals.



Lespedeza tomentosa cultivation (2019 autumn)



Siberian Lespedeza juncea cultivation (2019 autumn)



Cutting grass (April 2021)



Yamagata Casio protection team (April 2021)



Before cutting grass



After cutting grass



Before cutting grass



After cutting grass



Collecting seeds of protected plants  
(November 2021)



Raising protected plant seedlings (April  
2022)

As a result of the activities of the protection team to date for species subject to preservation on the grounds, the number of individuals has increased, and the risk of loss has decreased. In addition, the rare species subject to preservation have been labeled with signs to improve employee understanding, and the inclusion of updated information in this report is also helping to raise biodiversity awareness.

## Using Sustainable Paper

Nowadays, a variety of raw materials are used to make paper, but the most widely available material is wood pulp. Because wood used for wood pulp is often grown in distant forests, the global environment can be negatively impacted before the users of the paper realize it is happening. Although some of the world's production sites for raw materials practice eco-friendly sustainable forest management, in other cases high conservation value forests home to precious wildlife are being destroyed, and the rights of Indigenous peoples are being violated.

Considering indirect impacts on biodiversity within the supply chain, Casio established a Paper Procurement Policy in June 2015. Based on this policy, Casio is especially committed to refraining from using paper products that come from paper manufacturers that are suspected of destruction of any forest with high conservation value or of involvement in raw material procurement that ignores the rights of indigenous peoples. Casio preferentially uses reliable paper from certified forests to help increase the use of socially sustainable paper.

### | Paper Procurement

To make sure that it does not use paper products that are especially problematic, Casio periodically confirms that its suppliers do not use paper products from paper manufacturers that have been identified as dubious based on an independent investigation conducted by an international NGO related to the protection of wildlife. If it turns out, based on the confirmation results, that a product comes from one of the papermakers in question, Casio switches to products from a different paper manufacturer. By continuing such confirmation and switching of paper products, Casio exercises its indirect influence on the supply chain in an effort to minimize its indirect negative effects on biodiversity.

#### Paper Procurement Policy

### | Promoting Use of Certified Paper

Since fiscal 2017, Casio has been conducting target management for the percentage of paper from certified forests used for product catalogues. Until now, this has been done for product catalogs for the Japanese market that were ordered by the advertising department, to ensure that the actual situation could be monitored. Since then, however, orders have been diversifying. Accordingly, starting in fiscal 2023, Casio will expand the scope to include product catalogs for the Japanese market ordered by sales departments for all items sold in Japan from general printing companies. The percentage of paper from certified forests used will be recalculated in line with this expansion of the scope, which will result in a temporary decrease in the current percentage used.

One of the challenges in implementing target management under the new scope is how to assess the importance and priority of paper use as a biodiversity conservation measure. This is partly due to the COVID-19 pandemic, which has changed the purchasing behavior of users and tended to reduce the need for paper product catalogs. In addition, the 15th Conference of the Parties to the Convention on Biological Diversity (CBD/COP15), which has been repeatedly postponed due to COVID-19, is raising more important issues and points of focus as discussed at the preparatory and other meetings. Casio will continue to review its medium- and long-term targets, including what measures to prioritize in its efforts to promote "Living in Harmony with Nature."

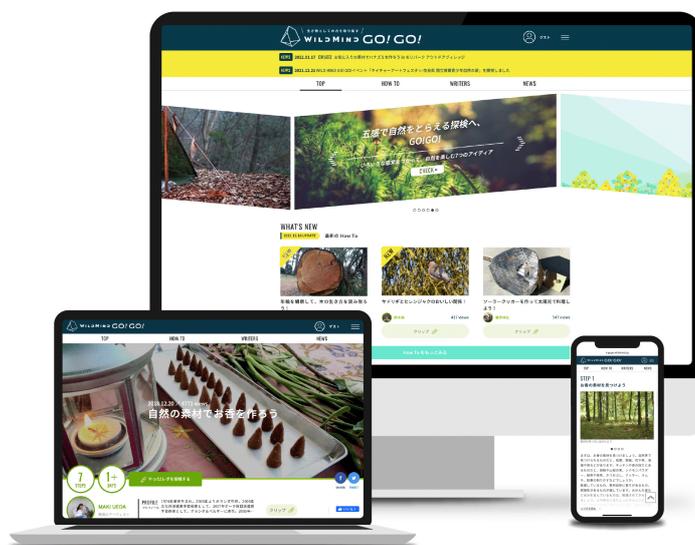
## Education

### | "WILD MIND GO! GO!" Website Promotes Nature Experience

Many people worldwide are working hard to stop deteriorating biodiversity around the world, but the decline has yet to be halted.

#### Global Biodiversity Outlook 5 (in Japanese)

One of the contextual factors influencing today's deteriorating biodiversity is that the issue is hard for many people to understand. Providing a precise answer is not always easy, even when someone is asking for an explanation. Another factor is that modern ways of life have removed most contact with nature from many people's daily lives. Casio is working to improve these factors by operating the website, "WILD MIND GO! GO!" This free online platform offers ideas for various experiences where people can easily encounter nature up close, and in familiar places.



WILD MIND GO! GO! (In Japanese)

WILD MIND GO! GO! offers people of all ages a creatively curated selection of experiences crafted by over 80 specialists, including outdoor experts, artists, designers, and scientists. Currently, this selection of ideas for over 200 hands-on experiences can be viewed easily by anyone on a computer or smartphone free of charge. People can experience nature in familiar natural terrain, such as parks, woodlands, and dry riverbeds. Participants can also report back on their experiences and share them with others.

People who have participated in these experiences report they have exciting adventures and make a variety of amazing discoveries in a familiar natural environment.



February 2022: Making "flower charcoal" (whereby a flower, seed, branch, or other item of flora is carbonized as is, retaining its form) with your material of choice!

[https://gogo.wildmind.jp/info\\_detail/333](https://gogo.wildmind.jp/info_detail/333) (in Japanese)



April 2022: Lighting a lamp with your own homemade oil!

[https://gogo.wildmind.jp/info\\_detail/334](https://gogo.wildmind.jp/info_detail/334) (in Japanese)

The ambitious goal of WILD MIND GO! GO! is to offer ideas for hands-on experiences that give people a fresh taste of the allure of nature and connect them to their natural environment. This is designed to restore an awareness of the abundant "power as a living being" that is innate to every person. The foundation for learning is the acquisition of knowledge, but compared to learning from movies or written texts, which offer a limited amount of information, hands-on experiences in natural terrain can be said to have unlimited informational content. In a nutshell, "some things you can't understand unless you try them yourself."



April 2022: Rock balancing

[https://gogo.wildmind.jp/info\\_detail/331](https://gogo.wildmind.jp/info_detail/331) (in Japanese)



July 2022: How to stake out a shelter tarp with nature

[https://gogo.wildmind.jp/info\\_detail/344](https://gogo.wildmind.jp/info_detail/344) (in Japanese)

Hands-on experiences add a dimension that goes beyond intellectual understanding, including an emotional impact and even the opportunity to sometimes make mistakes. It is precisely the understanding gained from experience and learning through repeated doing that leave an indelible impression on the body and soul. One example is a feeling of symbiosis with nature. A meaningful relationship is born with a part of nature, by eating it, using it, etc. The nature you felt detached from before becomes nature that personally concerns you.

Casio continues to promote WILD MIND GO! GO! to encourage more and more people to experience and understand the nature all around them firsthand, to recapture their own “power as a living being.” Some parts of the WILD MIND GO! GO! events are monetized to make this activity more sustainable.

## | CASIO Forest

Casio entered into the “Tokyo Waterworks: Corporate Forest (Naming Rights)” agreement with the Tokyo Metropolitan Government’s Bureau of Waterworks on August 29, 2018. Based on this agreement, Casio is conducting conservation activities on 2.46 hectares of an approximately 25,000-hectare water conservation forest owned by Tokyo, which it has named “CASIO Forest.”

[Signed the Tokyo Waterworks: Corporate Forest \(Naming Rights\) agreement \(in Japanese\)](#)

Activities are carried out by employee volunteers on days off. During the four years from 2018 to 2021, a total of 58 employees and their family members worked hard conducting onsite volunteer activities on seven occasions.



Preparatory field work in October 2018: Fallen branches and other leftover materials after thinning were cleared away to expose the ground for planting

[Bureau of Waterworks Tokyo Metropolitan Government: “Tokyo Waterworks: Corporate Forest \(Naming Rights\)” \(in Japanese\)](#)

[FY2019 Activities in the Casio Forest \(in Japanese\)](#)

[May 2019: Tree planting \(in Japanese\)](#)

[July 2019: Birdhouse making \(in Japanese\)](#)

[November 2019: Birdhouse cleaning and installation \(in Japanese\)](#)

[November 2020: Birdhouse cleaning and re-installation \(in Japanese\)](#)

[October 2021: Birdhouse cleaning and re-installation / Collecting Mongolian oakacorns \(in Japanese\)](#)

In the Tokyo Waterworks maintenance project for water conservation forests, the CASIO Forest area is designated for development of a forest of mixed conifers and deciduous trees. Just before the agreement was signed, the timber was cut to renew the woods as a water conservation forest. CASIO's activities began with preparatory field work, which laid the groundwork to plant broad-leaf trees at the site. After this preparatory field work, 50 Mongolian oak and 50 Japanese maple trees were planted, for a total of 100 trees.



Planting Trees in May 2019: 50 Mongolian oak and 50 Japanese maple trees were planted

As is the nature of a water conservation forest, CASIO Forest is located deep in the mountains far from the city center. The forest is a two-hour drive from the Hamura R&D Center in Hamura City outside of Tokyo, and because it sits at approximately 1,200 meters above sea level, the weather can be unpredictable. Often, by the time volunteers get to the site, the weather has turned rainy, making outdoor work impossible. To address this, an indoor program has been developed, where volunteers make birdhouses for wild birds using certified wood from Tama. This program has been held twice, and a total of 10 birdhouses have been installed in CASIO Forest.



Making Birdhouses in July 2019: Birdhouse-making as a rainy day program

The COVID-19 pandemic also impacted the CASIO Forest activities in 2020 and 2021. Out of concern for infection risk, the usual activity of taking a chartered bus as a group to the forest site was cancelled.

However, Tokyo's provision of tap water is an important lifeline in resident's daily lives, and management of nature in the water conservation forests continued despite the coronavirus crisis. Furthermore, transmission between humans and animals is said to be why the COVID-19 pandemic originated, and since it is also a biodiversity issue, it is necessary to consider adapting to be able to live with the coronavirus.

Given this, the activities in fiscal 2021 and 2022 were limited to a small number of employee volunteers who have joined in the past. The small number of participants (three to four people), including persons from the secretariat, cleaned and re-installed the ten birdhouses in the CASIO Forest in November 2020. This activity is thought to enable wild birds in the CASIO Forest to continue nestbuilding. In addition, in preparation for the supplemental planting of Mongolian oaks that were planted in 2019, acorns were collected from a large Mongolian oak located further up the site, and employee volunteers began a seedling-growing challenge.



November 2021: Birdhouse cleaning and re-installation, and the large Mongolian oak from which acorns were collected for supplemental planting

Tokyo Waterworks has installed around 3,800 birdhouses in water conservation forests. This aims to encourage nestbuilding by wild birds, which eat harmful insects, thereby decreasing damage from those insects to the trees that make up the water conservation forests. In other words, the activity endeavors to resolve problems by utilizing the power of nature, since insect control using pesticides is unsuitable in water conservation forests that serve as the source of people's drinking water. This can be called a nature-based solutions (NbS).

Ogouchi Dam is a reservoir for water flowing from water conservation forests and can be considered gray infrastructure, while water conservation forests that function to maintain a low sedimentation rate for the dam can be called green infrastructure. The combination of the two is likely to receive more and more attention going forward as a method of global environmental conservation.

This means that water conservation forests not only secure tap water and preserve biodiversity, but also help to combat climate change by absorbing CO<sub>2</sub> through the trees that grow in them, and thus they are related to multiple SDGs.

CASIO Forest promotes greater understanding of the importance of these issues thanks to the hard work of participating employee volunteers. To contribute to the resolution of global environmental issues, Casio will continue promoting these activities to create opportunities for employees to think about what the company can do for biodiversity in its business activities.

# The Biodiversity Working Group, The 4 Electrical and Electronic Industry Associations

In fiscal 2017, Casio started taking part in The Biodiversity Working Group of the 4 electrical and electronic industry associations (JEMA: The Japan Electrical Manufacturers' Association, JEITA: Japan Electronics and Information Technology Industries Association, CIAJ: Communications and Information Network Association of Japan, JBMIA: Japan Business Machine and Information System Industries Association).

In March 2018, the working group published a booklet, "Let's Try Biodiversity! (LTB)," for enterprises wishing to commence biodiversity conservation initiatives in the future. The working group also holds annual seminars to share information on biodiversity preservation with member companies.

As examples of its activities in fiscal 2020, the working group produced a publication to help address the problem of marine plastic pollution (LTB Pick Up! Let's Reduce Ocean Plastic Pollution by Working on Land!). It also held a practical seminar for member companies on the same issue (Learn About Biodiversity Conservation Activities: What Companies Can Do to Reduce Plastic in the Oceans). At the request of the seminar instructor, Kazuyuki Imamura, Director of the non-profit Arakawa River Clean-aid Forum, Casio gave a presentation on Lateco, a label writer designed to reduce plastic waste. Casio employee volunteers also participated in a cleanup on the banks of the Arakawa River, which was part of the seminar program, and helped capture the event using a video drone.

Details regarding the working group can be found on the JEMA website below.

[The Biodiversity Working Group, The 4 Electrical and Electronic Industry Associations \(in Japanese\)](#)

[Let's Try Biodiversity! \(LTB\) \(in Japanese\)](#)

[Seminar to Learn About Biodiversity Conservation Activities \(in Japanese\)](#)

[Let's Reduce Ocean Plastic Pollution by Working on Land! \(in Japanese\)](#)



LTB cover



Let's Reduce Ocean Plastic Pollution by Working on Land!



Presentation on Lateco at the LTB seminar



Walking along the Arakawa River with collection bags and tongs



Sorting the litter into waste-specific bags for counting and disposal



Participants from various companies and the rubbish they collected

The Biodiversity Working Group of Japan's four electrical and electronic industry associations has created a database of examples of biodiversity conservation activities, a collection of the initiatives of electrical and electronic companies. This data is provided to the Nijyu-maru Project (Double 20 campaign) of the Japan Committee for the International Union for Conservation of Nature. Casio's initiatives are registered in these databases, along with those of other companies.

[Database of examples of biodiversity conservation activities \(in Japanese\)](#)

[Nijyu-maru Project](#)

In 2020 and 2021, working group meetings were held remotely due to the COVID-19 pandemic, and activities such as onsite tours were halted to prevent the spread of infection. The working group has referenced and shared examples of how various companies are creatively responding to this situation and carrying out activities for biodiversity preservation.

In addition, the 15th Conference of the Parties to the Convention on Biological Diversity (CBD/COP15), which was scheduled to be held in China in October 2021, has been divided into separate sessions and postponed repeatedly. Now, however, the post-2020 Global Biodiversity Framework (GBF) is expected to be adopted in Montréal, Canada, in December 2022. In response to this, the working group gathers and shares information on international trends, such as the Taskforce on Nature-related Financial Disclosures (TNFD) and SBTs for Nature, and considers industry responses. Casio is proud to participate in these efforts.

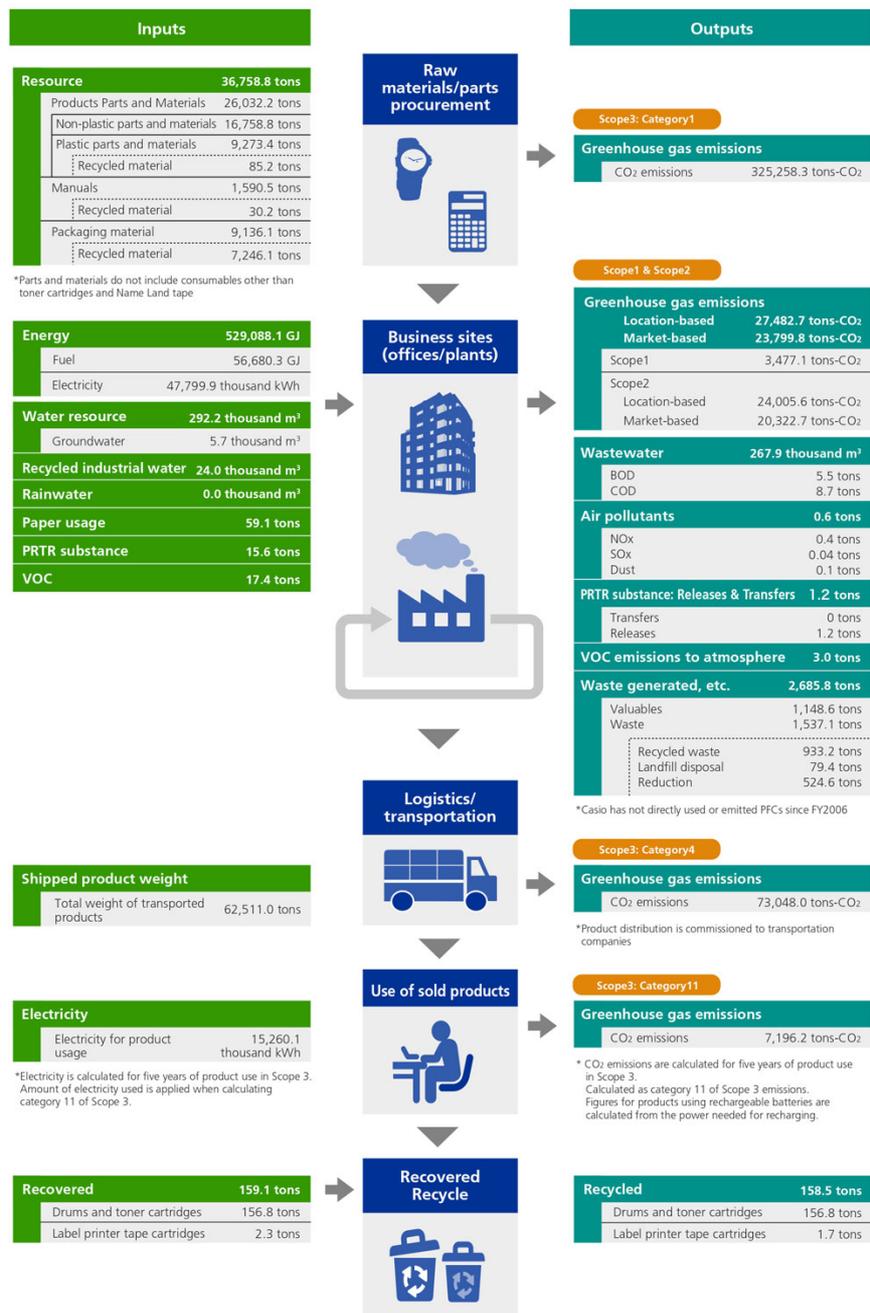


# Environmental Data

## Material Balance

The material balance shows Casio's fiscal 2022 business activities in terms of the energy and resources used in activities (input) and the products and environmental impact resulting from these activities (output). Casio strives to identify a wide range of environmental impact, from the materials used in products, customers' use of products, and the recovery of used products, not just the input/output resulting from its own business activities.

### Material balance in business activities (fiscal 2022)



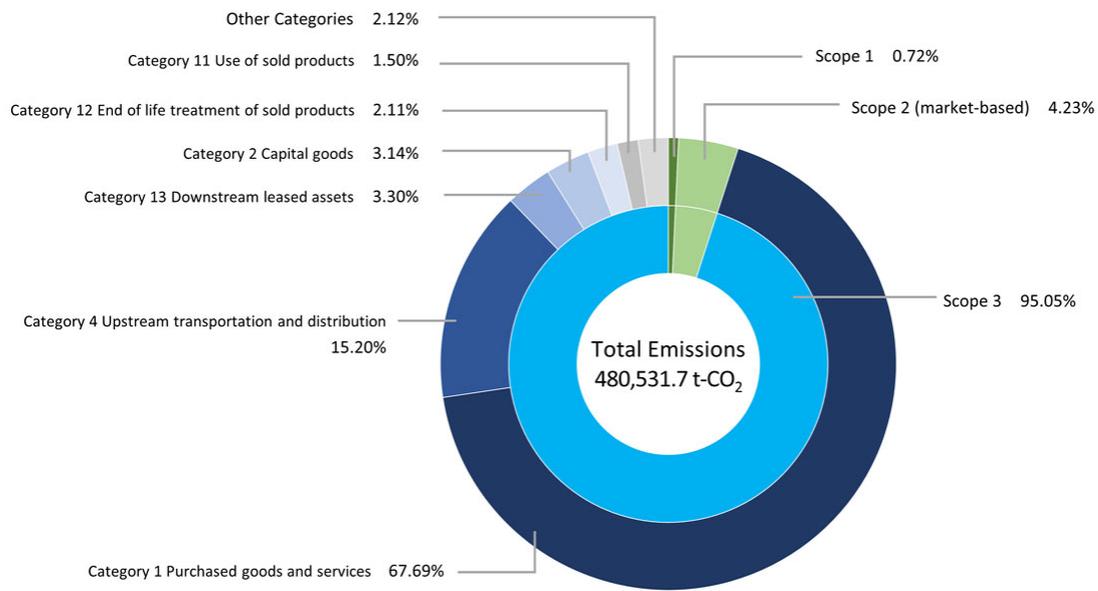
[View as PDF](#)

Please refer to [Environmental Performance Data](#) for site-specific data and detailed environmental data.

# CO<sub>2</sub> Emissions Throughout the Entire Value Chain

Casio identifies and calculates the greenhouse gas emissions (Scope 1 and Scope 2) produced by its business activities as well as emissions from sources upstream and downstream in the overall value chain (Scope 3). However, some of the categories in Scope 3 are omitted from the calculations or have been deemed inapplicable, and calculations have not been made for those. The results for fiscal 2022 are shown here.

## | CO<sub>2</sub> Emissions Throughout the Entire Value Chain



Scope/Category		CO <sub>2</sub> emissions in fiscal 2022	
		t-CO <sub>2</sub>	Percentage
Scope 1		3,477.1	0.72%
Scope 2	Location-based	24,005.6	-
	Market-based	20,322.7	4.23%
Scope 3		456,731.9	95.05%
1 Purchased goods and services		325,258.3	67.69%
2 Capital goods		15,073.0	3.14%
3 Fuel- and energy-related activities not included in Scope 1 or Scope 2		3,745.1	0.78%
4 Upstream transportation and distribution		73,048.0	15.20%
5 Waste generated in operations		96.0	0.02%
6 Business travel		1,319.8	0.27%
7 Employee commuting		1,497.0	0.31%
8 Upstream leased assets		105.1	0.02%
9 Downstream transportation and distribution		Omitted from calculations	-
10 Processing of sold products		Omitted from calculations	-
11 Use of sold products		7,196.2	1.50%
12 End of life treatment of sold products		10,136.9	2.11%
13 Downstream leased assets		115,837.3	3.30%
14 Franchises		N/A	-
15 Investments		3,419.3	0.71%
Total	Location-based	484,214.6	-
	Market-based	480,531.7	100.00%

\* Scope 2

For calculation of location-based and market-based CO<sub>2</sub> emissions, please refer to the [Calculation Standards](#).

In Scope 3, calculations are not made for category 9 (downstream transportation and distribution), category 10 (processing of sold products) and category 14 (franchises). Scope 3 accounts for an extremely high percentage of emissions compared to Scope 1 and Scope 2, amounting to 95.05% of overall emissions. This is the same pattern noted in the previous fiscal year, and is an important factor to consider when assessing greenhouse gas emissions related to Casio's activities.

Category 1 (purchased goods and services) in Scope 3 accounts for 67.69% overall, and in reducing emissions from Casio's activities overall, initiatives targeting category 1 in Scope 3 are particularly important.

# Environmental Performance Data

## | Greenhouse gas emissions (Scope1 and Scope2)

### Greenhouse gas emissions (Scopes 1 and 2) calculated using the location-based standard

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Scope1	6,043.2	5,729.3	5,483.1	5,619.2	5,670.1	5,268.0	4,572.0	3,618.5	3,477.1
Scope2	33,251.9	32,246.8	31,731.9	29,994.4	28,279.9	27,316.5	24,802.8	22,652.4	24,005.6
Total	39,295.1	37,976.1	37,215.0	35,613.6	33,950.1	32,584.5	29,374.8	26,271.0	27,482.7
Casio Group coverage	-	-	-	-	99.5%	99.5%	99.3%	99.5%	99.6%



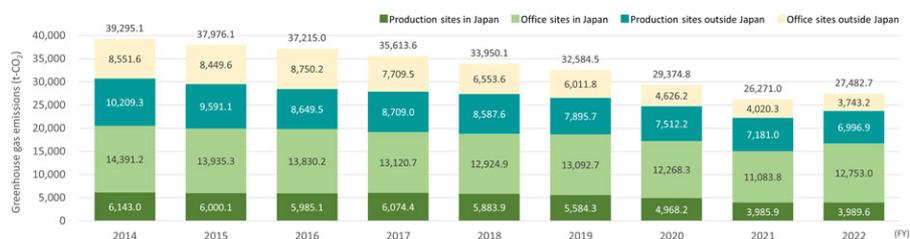
\*1 Emissions based on the location-based standard. See "Calculation Standards" in the "Environmental Performance Data" section for details.

\*2 No greenhouse gas emissions other than CO<sub>2</sub>.

### Greenhouse gas emissions (Scopes 1 and 2) calculated using the location-based standard: Breakdown by type of site

(t-CO<sub>2</sub>)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Production sites in Japan	8,551.6	8,449.6	8,750.2	7,709.5	6,553.6	6,011.8	4,626.2	4,020.3	3,743.2
Office sites in Japan	10,209.3	9,591.1	8,649.5	8,709.0	8,587.6	7,895.7	7,512.2	7,181.0	6,996.9
Production sites outside Japan	14,391.2	13,935.3	13,830.2	13,120.7	12,924.9	13,092.7	12,268.3	11,083.8	12,753.0
Office sites outside Japan	6,143.0	6,000.1	5,985.1	6,074.4	5,883.9	5,584.3	4,968.2	3,985.9	3,989.6



\*1 Emissions based on the location-based standard. See "Calculation Standards" in the "Environmental Performance Data" section for details.

\*2 No greenhouse gas emissions other than CO<sub>2</sub>.

## Greenhouse gas emissions (Scopes 1 and 2) calculated using the market-based standard

(t-CO<sub>2</sub>)

	FY2019	FY2020	FY2021	FY2022
Scope 1	5,268.0	4,572.0	3,618.5	3,477.1
Scope 2	27,049.6	24,047.2	22,081.9	20,322.7
Total	32,317.6	28,619.2	25,700.5	23,799.8
Casio Group coverage	99.5%	99.3%	99.5%	99.6%



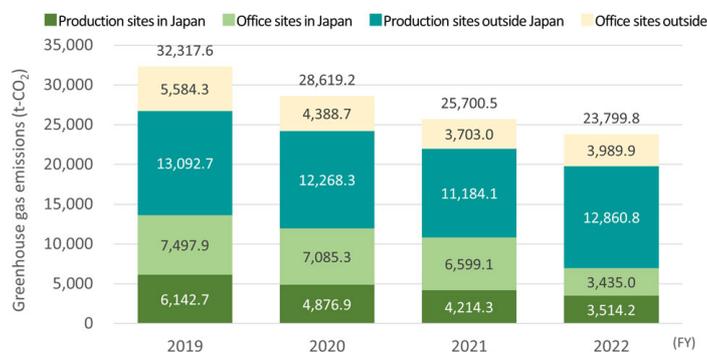
\*1 Emissions based on the location-based standard. See "Calculation Standards" in the "Environmental Performance Data" section for details.

\*2 No greenhouse gas emissions other than CO<sub>2</sub>.

## Greenhouse gas emissions (Scopes 1 and 2) calculated using the market-based standard: Breakdown by type of site

(t-CO<sub>2</sub>)

	FY2019	FY2020	FY2020	FY2022
Production sites in Japan	6,142.7	4,876.9	4,214.3	3,514.2
Offices in Japan	7,497.9	7,085.3	6,599.1	3,435.0
Production sites outside Japan	13,092.7	12,268.3	11,184.1	12,860.8
Offices outside Japan	5,584.3	4,388.7	3,703.0	3,989.9

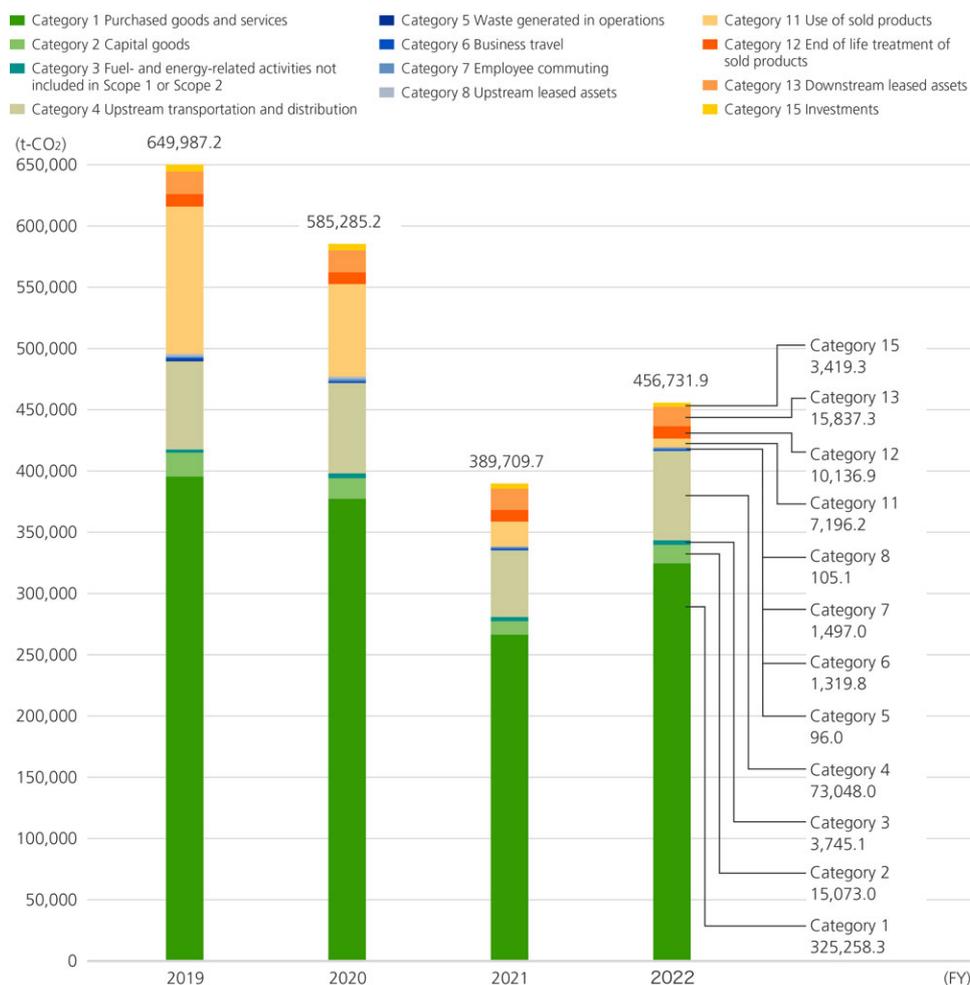


\*1 Emissions based on the location-based standard. See "Calculation Standards" in the "Environmental Performance Data" section for details.

\*2 No greenhouse gas emissions other than CO<sub>2</sub>.

## Greenhouse gas emissions (Scope 3)

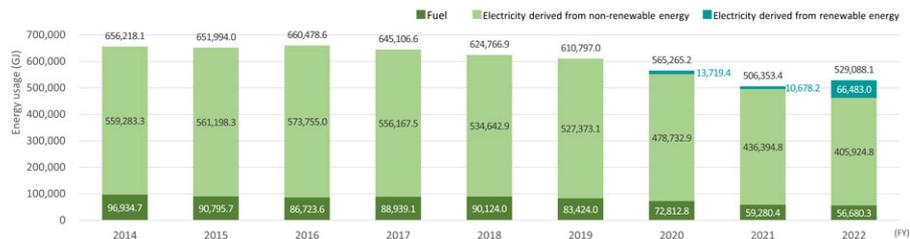
	FY2019		FY2020		FY2021		FY2022	
	t-CO <sub>2</sub>	Percentage						
Category 1 Purchased goods and services	395,394.2	60.83%	377,261.3	64.46%	266,362.5	68.35%	325,258.3	71.21%
Category 2 Capital goods	19,467.0	2.99%	16,698.4	2.85%	10,799.6	2.77%	15,073.0	3.30%
Category 3 Fuel- and energy-related activities not included in Scope 1 or Scope 2	2,559.7	0.39%	3,995.5	0.68%	3,597.2	0.92%	3,745.1	0.82%
Category 4 Upstream transportation and distribution	71,956.1	11.07%	73,665.1	12.59%	54,328.4	13.94%	73,048.0	15.99%
Category 5 Waste generated in operations	1,357.5	0.21%	130.7	0.02%	117.9	0.03%	96.0	0.02%
Category 6 Business travel	1,542.8	0.24%	1,455.1	0.25%	1,352.5	0.35%	1,319.8	0.29%
Category 7 Employee commuting	1,074.0	0.17%	1,796.4	0.31%	1,497.0	0.38%	1,497.0	0.33%
Category 8 Upstream leased assets	2,136.7	0.33%	1,966.6	0.34%	118.9	0.03%	105.1	0.02%
Category 9 Downstream transportation and distribution	Excluded from calculation							
Category 10 Processing of sold products	Excluded from calculation							
Category 11 Use of sold products	120,165.0	18.49%	75,417.8	12.89%	20,372.3	5.23%	7,196.2	1.58%
Category 12 End of life treatment of sold products	10,171.6	1.56%	9,653.5	1.65%	9,611.6	2.47%	10,136.9	2.22%
Category 13 Downstream leased assets	18,482.0	2.84%	17,997.0	3.07%	17,277.0	4.43%	15,837.3	3.47%
Category 14 Franchises	Not applicable							
Category 15 Investments	5,680.7	0.87%	5,248.0	0.90%	4,274.9	1.10%	3,419.3	0.75%
<b>Total</b>	<b>649,987.2</b>	<b>100%</b>	<b>585,285.2</b>	<b>100%</b>	<b>389,709.7</b>	<b>100%</b>	<b>456,731.9</b>	<b>100.00%</b>



## Energy usage

Figures in parentheses ( ) are MWh. Other figures are GJ.

		FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Fuel		96,934.7 (26,926.3)	90,795.7 (25,221.1)	86,723.6 (24,089.9)	88,939.1 (24,705.3)	90,124.0 (25,034.5)	83,424.0 (23,173.3)	72,812.8 (20,225.8)	59,280.4 (16,466.8)	56,680.3 (15,744.5)
Electricity	Non-renewable energy	559,283.3 (56,613.7)	561,198.3 (56,826.6)	573,755.0 (58,101.6)	556,167.5 (56,301.4)	534,642.9 (54,098.0)	527,373.1 (53,356.2)	478,732.9 (48,432.0)	436,394.8 (44,165.5)	405,924.8 (40,964.7)
	Renewable energy	-	-	-	-	-	0.0 (0.0)	13,719.4 (1,376.1)	10,678.2 (1,071.0)	66,483.0 (6,835.1)
Total		656,218.1 (83,540.1)	651,994.0 (82,047.7)	660,478.6 (82,191.6)	645,106.6 (81,006.7)	624,766.9 (79,132.5)	610,797.0 (76,529.6)	565,265.2 (70,033.8)	506,353.4 (61,703.3)	529,088.1 (63,544.4)
Casio Group coverage		-	-	-	-	99.5%	99.5%	99.3%	99.5%	99.6%



## Waste related data

### Generation of waste, etc.

(t)

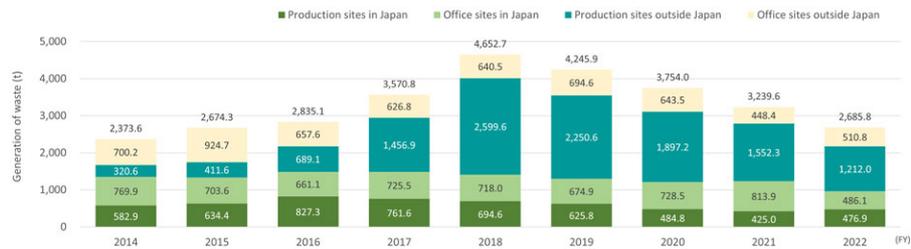
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Valuable wastes	1,152.0	1,394.5	1,646.0	1,717.0	1,975.0	1,864.7	1,610.1	1,306.5	1,148.6
Recycled	745.0	751.6	500.9	969.7	2,115.6	1,178.7	1,169.3	976.7	933.2
Reduction	211.0	321.0	461.2	182.8	194.0	715.9	811.7	619.8	524.6
Landfill disposal	265.5	207.2	227.0	701.3	368.1	486.6	163.0	336.7	79.4
Total generation of waste, etc.	2,373.5	2,674.3	2,835.1	3,570.8	4,652.7	4,245.9	3,754.0	3,239.6	2,685.8
Recycling rate	87.7%	91.2%	90.4%	79.3%	91.7%	86.2%	94.5%	87.1%	96.3%
Casio Group coverage	-	-	-	-	90.4%	90.2%	90.4%	91.0%	91.9%



## Emissions of waste: Breakdown by type of site

(t)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Production sites in Japan	582.9	634.4	827.3	761.6	694.6	625.8	484.8	425.0	476.9
Office sites in Japan	769.9	703.6	661.1	725.5	718.0	674.9	728.5	813.9	486.1
Production sites outside Japan	320.6	411.6	689.1	1,456.9	2,599.6	2,250.6	1,897.2	1,552.3	1,212.0
Office sites outside Japan	700.2	924.7	657.6	626.8	640.5	694.6	643.5	448.4	510.8



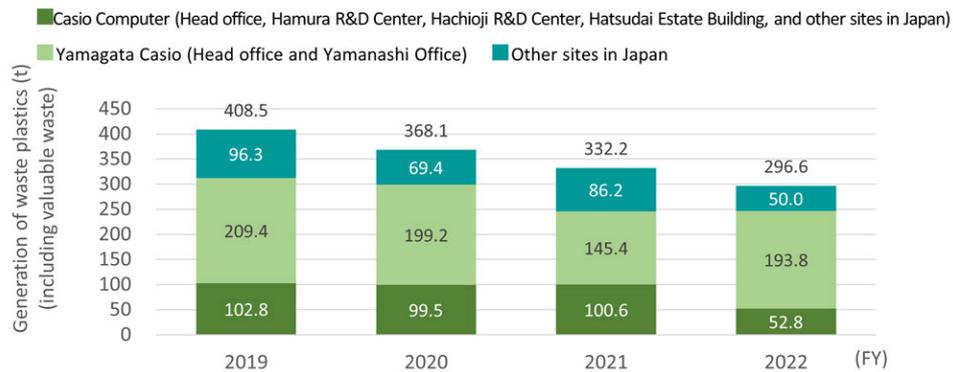
## Generation of waste plastics (including valuable waste) at sites in Japan

(t)

	FY2019	FY2020	FY2021	FY2022
Casio Computer Co., Ltd.*1	102.8	99.5	100.6	52.8
Yamagata Casio Co., Ltd.*2	209.4	199.2	145.4	193.8
Other sites in Japan	193.8	69.4	86.2	50.0
Total	408.5	368.1	332.2	296.6

\*1 Head office, Hamura R&D Center, Hachioji R&D Center, Hatsudai Estate Building, and other sites in Japan.

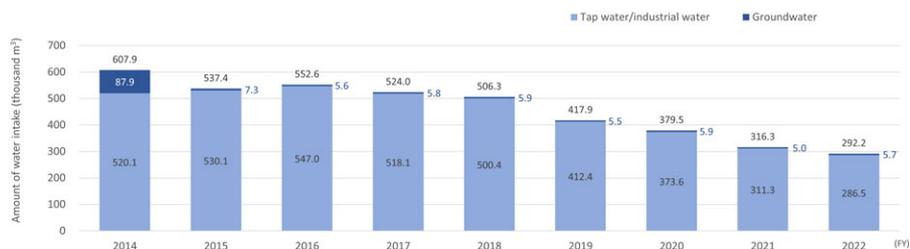
\*2 Head office and Yamanashi Office



## Water resources

(thousand m<sup>3</sup>)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Tap water/industrial water	520.1	530.1	547.0	518.1	500.4	412.4	373.6	311.3	286.5
Groundwater	87.9	7.3	5.6	5.8	5.9	5.5	5.9	5.0	5.7
Total	607.9	537.4	552.6	524.0	506.3	417.9	379.5	316.3	292.2
Casio Group coverage	-	-	-	-	83.6%	84.6%	84.9%	85.7%	89.6%



### (Breakdown by type of site)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Production sites in Japan	44.9	52.9	60.9	55.1	41.5	37.3	32.2	26.7	20.3
Office sites in Japan	167.9	85.9	79.7	81.5	77.0	75.2	72.1	52.7	57.4
Production sites outside Japan	377.7	381.5	394.8	369.7	371.1	288.4	258.6	224.4	203.1
Office sites outside Japan	17.4	17.2	17.2	17.7	16.7	16.9	16.6	12.5	11.4



## Usage of parts, materials, instruction manuals, packaging materials and recycle materials

(t)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Products (parts and materials)	25,669.0	26,209.0	24,676.0	28,745.0	23,615.2	25,437.6	25,961.9	25,601.8	26,032.2
Non-plastic parts and materials	11,295.0	13,049.0	11,698.0	14,760.0	12,107.1	13,614.3	17,473.5	16,679.8	16,758.8
Plastic parts and materials	14,374.0	13,160.0	12,978.0	13,985.0	11,508.1	88,823.3	8,488.4	8,922.0	9,273.4
recycle materials	1,239.0	877.0	439.0	244.0	238.6	220.0	249.6	71.8	85.2
recycle rate	8.6%	6.7%	3.4%	1.7%	2.1%	2.5%	2.9%	0.8%	0.9%
Instruction manuals	3,235.0	3,790.0	3,683.0	3,122.0	3,059.0	2,481.2	1,827.3	1,305.1	1,590.5
recycle materials	77.0	221.0	88.0	149.0	156.1	116.7	56.6	39.9	30.2
recycle rate	2.4%	5.8%	2.4%	4.8%	5.1%	4.7%	3.1%	3.1%	1.9%
Packaging materials	12,308.0	12,148.0	11,720.0	11,821.0	11,301.0	10,481.9	9,382.4	8,250.0	9,136.1
recycle materials	9,732.0	9,457.0	9,061.0	9,173.0	8,864.0	8,340.9	7,408.5	6,701.3	7,246.1
recycle rate	79.1%	77.8%	77.3%	77.6%	78.4%	79.6%	79.0%	81.2%	79.3%

# Models Certified as Casio Green Star Products and Casio Super Green Star Products

Some of the certified products (product series) are featured here.

## | Casio Super Green Star Products

**FY2022**



**Embedded projection module LH-200**

### Environmental Features

- Light flux of 15.4 lm/w
- Does not use a mercury light source
- Product size (volume) reduced by 38% (compared to Casio XJ-A132 model)
- Product size (weight) reduced by 35% (compared to Casio XJ-A132 model)
- Transport efficiency increased by 115% by reducing packaging (compared to Casio XJ-A132 model)
- Package plastic reduced by 26% (compared to Casio XJ-A132 model)



**Refill tape cartridge for label printer EC-K10 (Lateco) XB-6WE and others**

### Environmental Features

- Reduced plastic waste from cartridge disposal by using a tape refill method
- Awarded Eco Mark Award 2021 Best Product

**FY2021**



**Smart Style Projector FORESIGHT VIEW CX-F1, CX-E1**

### Environmental Features

- Light flux of 16.6 lm/w
- Does not use a mercury light source
- Product size (volume) reduced by 38% (compared to Casio's XJ-A132 model)
- Product size (weight) reduced by 30% (compared to Casio's XJ-A132 model)
- Transport efficiency increased by 115% by reducing packaging (compared to Casio's XJ-A132 model)
- Package plastic reduced by 26% (compared to Casio XJ-A132 model)



**Scientific calculator GRAPH35+E II**

### Environmental Features

- Energy consumption during use reduced by 50%
- Product size (volume) reduced by 23%
- Transport efficiency increased by 93% by reducing packaging (compared to Casio's GRAPH75+E-L-EH model)

## FY2020



Data projector XJ-F211WN

### Environmental Features

- Light flux of 14.8 lm/w
- Does not use a mercury light source



Data projector XJ-UT352WN

### Environmental Features

- Light flux of 13.2 lm/w
- Does not use a mercury light source

## FY2017

Calculator \*Contains at least 70% recycled plastic (percentage of gross weight of plastic)



SL-760ECO、SL-  
760GT



SL-305ECO、SL-  
300AECO



JF-120ECO



DF-120ECO



DS-2DB

## | Casio Green Star Products

See some products that were certified as Casio Green Star Products (photos show product examples).

### Calculator JS-20DC



### Environmental Features

- Solar battery powered
- Contains at least 62% recycled plastic (gross weight ratio of plastic)
- Package plastic reduced by 24% (compared to Casio JS-20WK model)

### Electronic dictionary XD-SX4800



### Environmental Features

- Transport efficiency increased by 91% by reducing packaging (compared to Casio XD-SP6600 model)

### Scientific Calculator FX-85EX-W (European specifications)



#### Environmental Features

- Solar battery powered
- Transport efficiency increased by 172% by reducing packaging (compared to Casio FX-85EX-S model)
- Package plastic reduced by 90% by changing packaging from blister packaging to a paper box (compared to Casio FX-85EX-S model)

### Watch GST-B400 / GW-5000U



#### Environmental Features

- Solar battery powered
- Shock-resistant structure

### Electronic musical instrument PX-S1100



#### Environmental Features

- Product size (volume) reduced by 36%
- Loading efficiency increased by 52% in a 40 feet container (compared to Casio PX-120 model)
- Energy consumption during use reduced by 17% (compared to Casio IT-G400 model)

### Label printer EC-K10 (Lateco)



#### Environmental Features

- Blank space at the beginning and end of the tape reduced by 76% compared to the conventional model (compared to Casio KL-G2 model)
- Reduced plastic waste from cartridge disposal by using a tape refill method

### Clock TQ-720J-7BJF/IQ-24-1JF



#### Environmental Feature

- Discontinued use of polyvinyl chloride

### Handheld terminal IT-G600



#### Environmental Features

- Energy consumption during use reduced by 18% (compared to Casio IT-G400 model)

## Scope of Data

The scope of the environmental performance data for fiscal 2022 is shown below.

Period covered: April 1, 2021 – March 31, 2022

Sites covered: 63 Casio Group sites

However, sites for which it is difficult to monitor water usage and waste generation due, for example, to an office lease agreement, are not included in the scope of calculation.

Numerical data on environmental performance for each site is listed separately

Please visit the following pages for data of each site.

[Sites in Japan](#)

[Sites outside Japan](#)

(t)

Production sites in Japan (2 sites)	<ul style="list-style-type: none"> <li>• Yamagata Casio Co., Ltd.</li> <li>• Yamagata Casio Co., Ltd. (Yamanashi)</li> </ul>
Office sites in Japan (36 sites)	<ul style="list-style-type: none"> <li>• Casio Computer Co., Ltd. (Headquarters)</li> <li>• Casio Computer Co., Ltd. (Hamura R&amp;D Center)</li> <li>• Casio Computer Co., Ltd. (Hachioji R&amp;D Center [including Casio Electronic Manufacturing Co., Ltd.])</li> <li>• Casio Computer Co., Ltd. (24 sales sites)(Kudan, Osaka, Sendai, Saitama, Nagoya, Hiroshima, Fukuoka and other sites)</li> <li>• Casio Business Service Co., Ltd. (Headquarters)</li> <li>• Casio Business Service Co., Ltd. (Kofu)</li> <li>• Casio Techno Co., Ltd. (Headquarters)</li> <li>• Casio Techno Co., Ltd. (Technical Center)</li> <li>• Casio Techno Co., Ltd. (West Japan Repair Center)</li> <li>• Casio Marketing Advance Co., Ltd.</li> <li>• CXD Next Co., Ltd.</li> <li>• Hatsudai Estate Building</li> <li>• Replex Inc.</li> </ul> <p>* Data for Casio Human Systems Co., Ltd., and Casio Communication Brains Co., Ltd. have been included in the data for the sites where they are located.</p>
Production sites outside Japan (4 sites)	<p>Asia (4 sites)</p> <ul style="list-style-type: none"> <li>• Casio (Thailand) Co., Ltd.</li> <li>• Casio Electronic Technology (Zhongshan) Co., Ltd.</li> <li>• Casio Timepiece (Dongguan) Co., Ltd.</li> <li>• Casio Electronics (Shaoguan) Co., Ltd.</li> </ul>
Office sites outside Japan (21 sites)	<p>Asia (9 sites)</p> <ul style="list-style-type: none"> <li>• Casio Electronics (Shenzhen) Co., Ltd.</li> <li>• Casio Computer (Hong Kong) Ltd.</li> <li>• Casio (China) Co., Ltd.</li> <li>• Casio (Guangzhou) Co., Ltd.</li> <li>• Casio India Co., Pvt. Ltd.</li> <li>• Casio Taiwan Co., Ltd.</li> <li>• Casio Soft (Shanghai) Co., Ltd.</li> <li>• Casio Singapore Pte., Ltd.</li> <li>• Guangzhou Casio Techno Co., Ltd.</li> </ul>
	<p>Europe (7 sites)</p> <ul style="list-style-type: none"> <li>• Casio Europe GmbH</li> <li>• Casio Electronics Co., Ltd.</li> <li>• Casio France S.A.</li> <li>• Casio Espana S.L.</li> <li>• Casio Benelux B.V.</li> <li>• Casio Italia S.r.l.</li> <li>• Limited Liability Company Casio</li> </ul>
	<p>Middle East (1 site)</p> <ul style="list-style-type: none"> <li>• Casio Middle East FZE</li> </ul>
	<p>Americas (4 sites)</p> <ul style="list-style-type: none"> <li>• Casio America, Inc.</li> <li>• Casio Canada Ltd.</li> <li>• Casio Mexico Marketing, S. de R. L. de C.V.</li> <li>• Casio Brasil Comercio De Produtos Eletronicos Ltda.</li> </ul>

# Calculation Standards

## 1. Overall

- (1) Items with no input, usage, handling or discharge performance have been left blank.
- (2) Figures are rounded off to the second decimal point, in the specified units (figures shown as "0.0" are less than "0.05").
- (3) When total Casio Group values for VOC inputs/emissions and PRTR are 1 ton or more, data is shown separately for the individual site.

## 2. Inputs

### (1) Energy input amount

- All fossil fuels and power used in business activities are totaled for sites indicated in the Scope of Data.
- Includes fuel usage by company vehicles, but does not include energy used for contracted logistics services, commuting, and business trips.
- Crude oil equivalent is calculated in accordance with Japan's Act on the Rational Use of Energy.

### (2) Water resource input amount

- Intake amounts of tap water, industrial water and groundwater are combined.
- Sites for which it is difficult to monitor water usage due, for example, to an office lease agreement, are not included in the scope of calculation.

### (3) Office paper usage amount

- Managed and tabulated based on the purchased amounts of paper used in printers, fax machines, and copy machines each year.
- The weight of one sheet is determined for each paper size, and weights are calculated based on the amounts purchased.

### (4) PRTR substance input amount

- Calculated for chemical substances subject to Japan's PRTR Act whose annual amount handled per substance is 0.05 tons or more at each site.
- Calculated for VOC inputs subject to a follow-up survey of achievements related to the four electrical and electronic industry associations' control of VOC emissions whose annual amount handled is 0.05 tons or more at each site.

## 3. Outputs

### (1) CO<sub>2</sub> emissions

- To calculate CO<sub>2</sub> emissions from the use of fuel, coefficients were used based on unit calorific values by fuel type and emission factors related to the use of fuel, as stipulated by Japan's Act on Promotion of Global Warming Countermeasures.
- CO<sub>2</sub> conversion coefficients for electricity were applied as follows.

		FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Location-based standard		IEA *1	IEA	IEA	IEA	IEA	IEA	IEA	IEA	IEA
Market-based standard	Sites in Japan	-	-	-	-	-	Emission factors for each electric power company in Japan *2	Emission factors for each electric power company in Japan	Emission factors for each electric power company in Japan	Emission factors for each electric power company in Japan
	Sites outside Japan	-	-	-	-	-	Emission factors for each electric power company (if not applicable, IEA emission factor is used)	Emission factors for each electric power company (if not applicable, IEA emission factor is used)	Emission factors for each electric power company (if not applicable, IEA emission factor is used)	Emission factors for each electric power company (if not applicable, IEA emission factor is used)

\*1 International Energy Agency (IEA) emission factors 2021 edition

\*2 Emission factors after adjustment for each electric power company as stipulated by Japan's Act on Promotion of Global Warming Countermeasures

## (2) Wastewater

- Wastewater calculations include actual amounts at sites that measure wastewater, and, for sites that do not measure wastewater, their amount of water intake.
- At sites with special facilities that fall under the Water Pollution Prevention Act and/or the Sewer Act, water quality surveys are conducted based on applicable laws, and confirmation is made that emissions are below regulatory limits. Since fiscal 2014, the applicable facilities have not been operating.
- In the case of discharge into public sewer systems, figures are shown if voluntary measurements are taken.

## (3) Air pollutants

- Calculated at sites that have smoke generating facilities based on the concentration measurements and gas emissions at each facility.
- Yamagata Casio, Hamura R&D Center, Casio (Thailand) Co., Ltd., and Casio Electronics (Shaoguan) are included in tabulation of results.
- Concentrations of dust emissions, NO<sub>x</sub>, and SO<sub>x</sub>, which must be managed by law, are measured at target sites, to confirm that they are below regulation levels.
- The following substances are not used at any Casio site: dichloromethane, trichlorethylene, tetrachlorethylene, chloroform, vinyl chloride monomer, 1,3-butadiene, benzene, acrylonitrile, 1,2-dichloroethane, formaldehyde, trinickel disulfide, nickel nitrate, and acetaldehyde.

## (4) PRTR

- Release and transfer quantities are calculated for each chemical substance subject to Japan's PRTR Act whose annual usage is 0.05 tons or more at each site.
- Calculated for VOC outputs to air subject to a follow-up survey of achievements related to the four electrical and electronic industry associations' control of VOC emissions whose annual amount handled is 0.05 tons or more at each site.

## (5) Waste

- Waste is tabulated as the total amount of industrial waste generated when product is transferred from a Casio site to the processor, general waste derived from sites, and the quantity of valuable wastes.
- Sites for which it is difficult to monitor waste generation due, for example, to an office lease agreement, are not included in the scope of calculation.

## (6) Base year figures

- For the evaluation of greenhouse gases and energy conservation, emissions and usage of divested businesses are excluded from data in and after the base year in accordance with the GHG Protocol.
- For sites that were included in the scope in and after the base year due to acquisition, etc., historical data on emissions and use is only added to historical data for fiscal years in and after the base year when it is available in accordance with the GHG Protocol, which is the international standard.

#### 4. Scope 3 calculation methods

Category 1	Purchased goods and services	Calculated by multiplying the amount of activity by the unit. Amount of activity: Amount of consumables, raw materials, tap water, industrial water, advertising expenses and salaries of temporary staff. Unit: Emissions unit of the purchased amount of each item of the amount of activity (Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain version 3.2 issued by Japan's Ministry of Environment and LCI database IDEA version 2.1.3.)The amount of activity was carefully reviewed and emissions were recalculated retroactively for past fiscal years accordingly.
Category 2	Capital goods	Calculated by multiplying the amount of activity by the unit. Amount of activity: Amount of capital investment by all consolidated subsidiaries. Unit: Emissions unit corresponding to the amount of capital investment.(Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain version 3.2 issued by Japan's Ministry of Environment)
Category 3	Fuel-and-energy-related activities (not included in Scope 1 or 2)	Calculated by multiplying the amount of activity by the unit. Amount of activity: Amount of used electricity and fuels. Unit: Emissions unit of each type of fuel and electricity (Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain, version 3.2, issued by Japan's Ministry of Environment, and Carbon Footprint Communication Program Basic Database version 1.01)
Category 4	Upstream transportation and distribution	Calculated by multiplying the amount of activity by the unit for each transportation route, and then adding these together. Amount of activity: Transportation volume and distance per transportation route among the product distribution for which Casio Computer Co., Ltd. pays the burden of expense. Unit: Fuel consumption unit based on transported weight and transportation distance (Source: For trucks: specific fuel consumption using the improved ton/kilo method. For trains, ships and airplanes: CO2 emissions output level using the conventional ton/kilo method)
Category 5	Waste generated in operations	Calculated by multiplying the amount of activity by the unit for each type of waste, and then adding these together. Amount of activity: Emissions of each type of waste. Unit: Emissions unit of each type of waste (Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain version 3.2 issued by Japan's Ministry of Environment) The unit was carefully reviewed and emissions were recalculated retroactively for past fiscal years accordingly.
Category 6	Business travel	Calculated by multiplying the amount of activity by the unit. Amount of activity: Number of domestic and overseas employees. Unit: Emissions unit per employee. (Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain version 3.2 issued by Japan's Ministry of Environment)
Category 7	Employee commuting	Calculated by multiplying the amount of activity by the unit. Amount of activity: The amount of payment equivalent to commuting by train and car (bus) is estimated from the transportation expenses paid to employees. Unit: Emissions unit for commuting by train and car (Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain version 3.2 issued by Japan's Ministry of Environment)
Category 8	Upstream leased assets	Calculated by multiplying the amount of activity by the unit. Amount of activity: Sales area of G-SHOCK stores in Japan (pro-rated by the number of business days in the reporting year). Unit: Emissions unit per sales area (Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain version 3.2 issued by Japan's Ministry of Environment)
Category 9	Downstream transportation and distribution	Transportation to retailers from the distribution hubs of regular sales companies is outside the scope of Casio's expense payment. Since this is difficult to ascertain and the CO <sub>2</sub> emissions are deemed to be fairly small compared to Category 4 upstream transportation and distribution, it is not included in calculations.
Category 10	Processing of sold products	Although one of our group companies provides name printing and other services, emissions of CO <sub>2</sub> and other substances from this business activity is included in Scopes 1 and 2.
Category 11	Use of sold products	Calculated by multiplying the amount of activity by the unit for each product model sold and the country of sale during the relevant fiscal year. These are then added together to calculate the total. Amount of activity: Power consumption, lifetime use period, and sales volume by product model. The lifetime use period is calculated using industry standards, if any, or assuming a five-year product life if not specified. Unit: Emissions unit of electricity use (Source: IEA country-specific emission factors. If country-specific emission factors are not available, the global average factor is applied.)
Category 12	End of life treatment of sold products	The emissions from each material used in products sold during the fiscal year are used as the amount of activity, and the value is calculated by multiplying by the unit for each material. These are then added together to calculate the total. Amount of activity: Amount of each material used in the product itself and in the container packaging materials. Unit: Emissions unit of each type of material (Source: Emission factor database for calculating organizational GHG emissions throughout the supply chain version 3.2 issued by Japan's Ministry of Environment)
Category 13	Downstream leased assets	In cases when relevant leased assets exist, Casio inquires with the users each asset (building) about the amount of CO <sub>2</sub> emissions, and uses the data they provide to calculate the total amount of emissions.
Category 14	Franchises	The franchise formula is not used.
Category 15	Investments	Calculated by multiplying the emissions from investment destinations (equity method affiliates and companies which hold specific annual stocks and constructive stocks, etc.) by the equity method ratio or the shareholding ratio.

# Third-party verification

In order to ensure the reliability of its environmental data reporting, in fiscal 2011 Casio began requesting third-party verification. Casio commissioned SGS Japan Co., Ltd. to conduct the audit of environmental data in fiscal 2022. The audit covered greenhouse gas emissions (Scope 1, 2 and Categories 1 and 11 of Scope 3), water intake, waste (including variable waste), and emissions of atmospheric pollutants (NO<sub>x</sub>, SO<sub>x</sub> and dust). Of the sites covered by SGS, on-site surveys were conducted at the Hachioji R&D Center and Casio Business Service Co., Ltd. (Kofu).

## Third-party verification statement



20 July 2022  
Opinion No : SGS22/027

**Verification Opinion**

Mr. Kashio Kazuhiro  
President and CEO  
CASIO COMPUTER CO., LTD.  
6-2, Hon-machi 1-chome, Shibuya-ku, Tokyo,  
Japan

**Objective**  
SGS Japan Inc. (hereinafter referred to as "SGS") was commissioned by CASIO COMPUTER CO., LTD (hereinafter referred to as "the Organization") to conduct independent verification based on Criteria of Verification (ISO14084-3: 2019 and the SGS verification protocol) regarding the data prepared by the Organization on the scope of verification (hereinafter referred to as "the statement"). The objective of this verification is to confirm that the statement in the Organization's applicable scope has been correctly calculated and reported in the statement in conformance with the criteria, and to express our views as a third party. The Organization is responsible for the preparation and fair presentation of the statement.

**Scope**  
The scope of verification is Scope1 and 2 emissions, energy consumption, and Scope3 emissions, Water intake, Waste generated and Air pollutants.  
The period subject to report is from 1 April 2021 to 31 March 2022.  
Refer to the attached sheet for the detailed scope of verification.

**Procedure of Verification**  
The statement was verified in accordance with Criteria of Verification, and the following processes were implemented at a limited level of assurance.

- Verification of the calculation system: Interviews on the measurement, tabulation, calculation and reporting methods employed by the Organization as well as review of related documents and records
- Verification of the assertion: On-site verification and vouchers review carried out remotely by connecting the Organization's Headquarters with Casio Computer Co., Ltd. (Hamura R&D Center) and Casio Techno Co., Ltd. (Technical Center) via the Internet as special measures due to COVID-19 outbreak. Analytical procedures and interviews for the other sites within the scope of verification carried out at the Organization's Headquarters

The criteria for this review are based on the GHG Emissions Calculation and Reporting Manual (Ver.4.8), IEA emission factors 2021 edition, Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain (Ver. 2.4), and Emission Factor Database on the same Accounting (Ver. 3.2), LCI Database IDEFA (version2.1.3) and the protocol specified by the Organization.

**Conclusion**  
Within the scope of the verification activities employing the methodologies mentioned above, nothing has come to our attention that caused us to believe that the Organization's statement was not calculated and reported in conformance with the criteria.  
SGS Japan Inc. affirms our independence from the Organization, being free from bias and conflicts of interest with the Organization.

For and on behalf of SGS Japan Inc.  
Yokohama business Park North Square |  
154, Gouda-cho, Hodogaya-ku, Yokohama  
Senior Executive & Director  
Knowledge

Yuji Takeuchi



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attached sheet  
20 July 2022  
Opinion No : SGS22/027

**The details of the scope of verification**

The scope	The boundary	The statement
1 The performance data Scope1 and 2 include energy related greenhouse gas emissions. Energy consumption	The environmental results reporting sites specified by the Organization (63 domestic and overseas)	Scope1: 3,477 t-CO <sub>2</sub> Scope2: 24,006 t-CO <sub>2</sub> (location-based) Scope2: 20,323 t-CO <sub>2</sub> (market-based)
2 Scope3 (category 1, 11)	<ul style="list-style-type: none"> <li>Category1: the purchased goods and services of the consolidated account specified by the Organization</li> <li>Category11: domestic and overseas sales products specified by the Organization</li> </ul>	Category11: 325,258 t-CO <sub>2</sub> Category11: 7,186 t-CO <sub>2</sub>
3 Water intake	The environmental results reporting sites specified by the Organization (30 domestic and overseas)	292.2 thousand m <sup>3</sup>
4 Waste and Valuable waste generated	The environmental results reporting sites specified by the Organization (38 domestic and overseas)	Wbste: 1,537 t Valuable waste: 1,149 t
5 Air pollutants	4 domestic and overseas	Dust emissions: 0.145 t NO <sub>x</sub> : 0.371 t SO <sub>x</sub> : 0.036 t

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# Environmental Accounting

## | Overview of fiscal 2022 performance

In fiscal 2022, environmental accounting showed that investment in environmental conservation was about the same as in the previous fiscal year, and that costs and the economic benefits (real effects) associated with environmental conservation measures decreased.

Investments in environmental conservation, including energy saving systems, were valued at ¥17 million. The costs of environmental conservation included ¥417 million for recycling products, parts, and toner cartridges and other consumables and ¥377 million for energy saving, air and water pollution measures and the like, bringing the total to ¥794 million. The economic benefits associated with environmental conservation measures were ¥354 million due to real effects including business revenue from recycling activities.

Moving forward, Casio will accurately ascertain and disclose the effects of its environmental management activities from an economic perspective and will strive to engage in efficient and effective environmental conservation efforts.

## | Environmental conservation costs (April 2021 – March 2022)

Category by business activity		Environmental investment (¥ million)	Environmental expenses (¥ million)*1
Main initiatives			
Business area costs (costs arising in the main areas of business activity (manufacturing, processing, sales, distribution etc.))		17	213
(1) Pollution prevention cost	Preventing air and noise pollution	3	33
(2) Global environmental conservation cost	Maintenance of energy-saving systems	13	139
(3) Resource circulation cost	Processing, reducing in volume, and recycling of general and industrial waste	1	41
Upstream/downstream cost*2	Collection and recycling of products, parts, supplies	-	417
Administration cost	Secretariat operation costs, environmental information disclosure	-	106
R&D cost	R&D for reduction of environmental impact	-	55
Social activity cost	Participation in, donations to, and support for environmental conservation organizations	-	3
Total		17	794

\*1 Depreciation costs are included in the expenses.

\*2 Costs arising before and after the processes of the main business activities.

## Economic benefits of environmental conservation (April 2021 – March 2022)

Type of benefit			Amount (¥ million)
Actual benefit (benefit that contributes to profits as a result of the promotion of environmental conservation measures)*3			
Profits	Business revenue from recycling of used products, etc.		348
	Cost reduction	Cost reduction through energy saving activities	1
Reduction of waste processing costs arising from resource saving or recycling		5	
Total			354

\*3 Only economic benefits that could be aggregated were included, and deemed benefits based on estimates were not included.

## Environmental conservation effect

Types of environmental conservation effects	Environmental performance indicator*4	Unit	FY2021	FY2022	Environmental conservation effect
Environmental conservation effect relating to resources used in business activities	Water resources	Thousand m <sup>3</sup>	316	292	24
Environmental conservation effect relating to environment impact and waste generated by business activities	CO <sub>2</sub> emissions	Tons-CO <sub>2</sub>	25,555	23,800	1,756
	Waste emissions	Tons	3,240	2,686	554

\*4 Figures for fiscal 2022 are based on the "Calculation Standards." Figures for fiscal 2021 are based on the "Calculation Standards" of the Sustainability Report 2021.

Scope of data compilation for accounting: Casio Computer Co., Ltd., and consolidated subsidiaries in and outside Japan.

Reference guideline: Environmental Accounting Guidelines 2005, Ministry of the Environment, Japan.

# Environmental Compliance

Here is an overview of Casio's environmental compliance initiatives.

## Standards Management and Audits: Regular Internal Audits and Third-party Audits

There are 14 Casio sites which have obtained ISO 14001 certification.

Of these, three sites belonging to Casio Computer Co., Ltd. (Headquarters, Hamura R&D Center, and Hachioji R&D Center) began working under integrated certification in fiscal 2018.

Each of these sites regularly implements conditions management and improvement activities by measuring concentrations of dust, SO<sub>x</sub>, and NO<sub>x</sub> in exhaust emissions, based on voluntary standards and standards established by national and local governments. They also measure wastewater quality (water containing harmful substances). Moreover, the sites measure and report usage conditions for harmful atmospheric pollutants, as well as handling quantities and atmospheric emissions of volatile organic compounds (VOCs).

Further, each site trains internal environmental auditors, conducts internal audits, and also undertakes regular third-party audits by external organizations. If there is any non-conformity, corrective measures are taken in accordance with internally specified procedures and continuous improvement activities are carried out.

With a view to strengthening Casio's environmental risk management and improving its environmental performance in the future, internal environmental auditors are expected to play a role as front-line leaders of environmental compliance. Toward this end, they are enhancing their ability to perceive environmental risks, increasing their specialized knowledge of environmental laws and regulations as well as chemicals management, and also identifying issues and proposing improvements.

## Compliance with Environmental Laws and Regulations Related to Casio Products

### (1) Regulations on the concentration of specified chemical substances

Casio strives to limit the concentration of specified chemical substances that are regulated by a country's laws and regulations to at or below the mandated level, ensure that human health is not affected, and minimize the impact on the ecosystem. As countries in the EU, the US and other countries on the forefront of environmental measures, as well as emerging countries in Asia, Central and South America and the Middle East, reinforce and expand environmental laws and regulations, Casio has established the Expert Sub-Committee on Environmental Law below the Promotion Committee for Group-wide Quality Enhancement. In this sub-committee, divisions involved in development, design, quality assurance, procurement, production, sales and services share information, set guidelines for responding as well as rules, and ensure that the PDCA cycle is always functioning. The Casio Green Procurement Standards serve as the operating standards and set the rules for parts and materials, while the Casio Green Database functions as the management system that determines whether a part or material can be used in Casio products.

[Major environmental laws and regulations related to Casio products \(PDF\)](#)

## **(2) Regulations on energy efficiency for power consumption**

Countries also have environmental laws and regulations on power source efficiency for products that connect to AC power. Starting in the development stage, Casio assesses whether a product subject to environmental laws and regulations meets requirements, and then submits requests for approval to the relevant authorities.

## **Compliance Relating to the Proper Collection, Recycling, and Disposal of Used Products**

Countries around the world also have regulations for the collection and recycling of used electrical and electronics products, packaging materials, and batteries. Companies must comply with the requirements of each law including product design to save resources and facilitate recycling, labeling and information provision to promote user participation in the sorted collection of products for recycling, as well as information provision for proper product disposal.

Casio evaluates products in terms of resource savings, ease of dismantling, recycling potential, and recycled material content. Confirmation is also made to see whether the recycling labels and displayed information meet legal requirements worldwide.

In response to the enactment of Japan's Small Electronic Devices Recycling Act in April 2013, Casio has put together a project team including employees involved in every product category (such as designers), aiming to ensure products being developed are easily recyclable. Casio is asking intermediate processors and metal smelters who recycle used small household appliances to participate in interviews regarding dismantling methods and other issues. The lessons learned are being incorporated into product environmental assessments, helping Casio to develop products that are easy to recycle.

## **Compliance Relating to Energy Saving and Climate Change Measures**

Casio has measures addressing regulations around the globe, but this section focuses on the steps Casio is taking to comply with the laws and regulations in Japan that apply to its relatively large business facilities.

### **1. Act on the Rational Use of Energy**

Pursuant to the requirements of the Energy Conservation Law, Casio is taking various steps such as addressing the rational use of energy at the business level. Casio Computer Co., Ltd. and Yamagata Casio are both currently designated as specified businesses. Since fiscal 2010, Casio has been regularly submitting reports and medium and long-term plans on this issue. In accordance with the determination standards relating to the rational use of energy at plants and facilities, Casio has created the new position of energy management supervisor and has been promoting the rational use of energy and other measures.

### **2. Act on the Promotion of Global Warming Countermeasures**

Casio does not exceed the standards for emissions of greenhouse gases other than CO<sub>2</sub> arising from energy use set by Japan's Act on the Promotion of Global Warming Countermeasures. It is complying with requirements for the reporting of greenhouse gas emissions, by regularly submitting reports under the Act on the Rational Use of Energy.

### 3. Environmental Regulations in Tokyo

Under the Tokyo Metropolitan Environmental Security Ordinance's Carbon Reduction Reporting Program, if the total energy usage on a crude oil equivalent basis for a business' several small and medium-sized facilities set up within the Tokyo Metropolitan Area reaches 3,000 kl/year or higher, the business must submit a report including the status of initiatives to save energy at each facility.

The requirement to submit a report and make information public in accordance with the Carbon Reduction Countermeasures Reporting Program does not currently apply to Casio. However, below are the reports Casio submitted previously (in Japanese).

[Tokyo Carbon Reduction Reporting Program on the Tokyo Metropolitan Government website \(In Japanese\)](#)

Published Data of Casio Computer Co., Ltd. (In Japanese)

\*Casio has been exempt from the requirement to submit reports since fiscal 2020, and no longer submits reports. It has been confirmed that the total energy usage on a crude oil equivalent basis at all relevant business sites has been less than 3,000kL/year since fiscal 2020.

[Fiscal 2019](#) (PDF / 1.00MB)

[Fiscal 2018](#) (PDF / 858KB)

[Fiscal 2016](#) (PDF / 302KB)

[Fiscal 2015](#) (PDF / 297KB)

## Compliance Relating to Environmental Information Disclosure

There is a growing international movement calling for the creation of information disclosure standards for companies.

Along with the need for Japanese standards to coincide with the International Financial Reporting Standards (IFRS), there is a movement calling for the provision of Management Commentaries (MC) as a form of disclosure of non-financial and corporate forecast information. In other words, companies will need to disclose non-financial data which describes the connections between the company's current situation, business strategy, risks, and financial performance, and other relevant information.

In order to provide its stakeholders with the proper environmental information in a way that it is easy to understand, Casio has the following aims.

1. To adopt more accurate indices relating to environmental impact, and to provide comparable information
2. To provide non-financial information including environmental information that indicates the connections with corporate strategy
3. To explain the capability of environmental information to improve corporate performance

Along with working to disclose environmental information, Casio will promote international disclosure standards for non-financial information, and work towards standardization.

## Compliance with Environmental Laws

Casio was not subject to any legal violations, penalties, fines, or lawsuits relating to the environment in fiscal 2022.