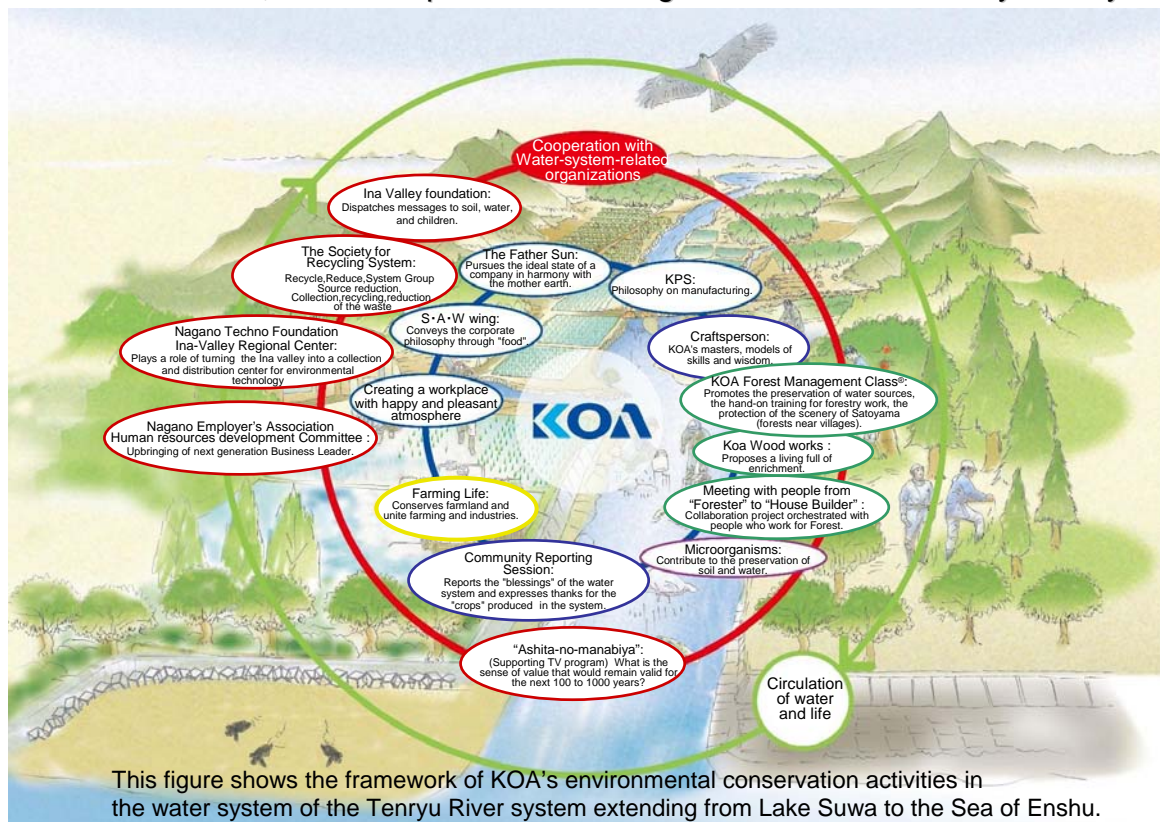


# KOA Group Annual Report of the “Father Sun” Activities 2012 Edition

With the corporate philosophy of “Circulation”, “Harmony”, “Finite”, and “Enrichment”, KOA Group aims at building a model of a circulatory society.



The KOA Group considers establishing the bond of trust with each of its stakeholders (who support KOA) – customers, trade partners, shareholders, employees and their families, local communities, and the mother earth – its corporate mission, and engages in the “Father Sun” activities to seek harmony with the mother earth.

The “Father Sun” is the name we have given to our ISO14001 Environmental Management System to express our aspiration “Let's engage in activities in a manner we can report to the Father Sun fairly and squarely with confidence.”

“KOA's Vision E. Mother Earth” instituted in 2011 is intended to be embraced by all people of various nationalities working for KOA around the globe, and it represents the basic thinking to make the progress of environmental improvements in all corporate activities transparent and to further advance practices that are in harmony with the environment and activities that do not burden the environment. As we seek to permeate this vision, all employees will be environmentally conscious in carrying out their duties.

## KOA's Vision E. Earth

**KOA and all its employees, together with their family members and the people of local community, are maintaining the biodiversity of the Tenryu River System (where KOA has its origin) and local communities (where KOA has a presence), and are engaging in activities to realize the circulatory society.”**

## KOA Corporation Company Profile

- Location of Head Quarters : Minowa-machi, Kamiina-gun, Nagano, Japan
- Establishment : March 10, 1940
- Capital : JPY6.033 billion (Listed on the first section of the Tokyo and Nagoya Stock Exchanges)
- Representative : President, Koichi Mukaiyama
- Employees : 1,323 (As of March 31, 2012)
- Business Description : Design, development, manufacture, and sale of various electronic components

## KOA Group Profile

- KOA Group: (Consolidated) 6 companies in Japan and 10 companies in overseas  
(Non-consolidated) 1 company in Japan and 1 company in overseas
- Employees : 4,075 (As of March 31, 2012) (Japan) 2,063  
(Overseas) 2,012

- Environmental Management Representative : Managing Director, Kayoko Fukano
- ISO14001 Certification Number : JQA-EM0155 (Registered in April 1998)
- Contact : Management Administration Initiative  
Social Environment Center  
[TEL: 81-265-70-7171 (main number)]  
[E-mail : gac-e@koanet.co.jp]  
[URL : http://www.koanet.co.jp]



## KOA Environmental Policy ~ Basic Policies for Activities to Realize Circulatory Society ~

The KOA Group has unified environmental policies of group companies under the "KOA Environmental Policy", and has instituted environmental concepts that reflect the the circumstances of each group company and characteristics unique to each region, to engage in environmental activities.

### Origin:

How can we live in harmony with mother earth?

### Philosophy:

KOA was established and grew up in Ina Valley to provide the environment where farmers can live as farmers.

Meanwhile, as we engage in electronic component production, we - as one of living creatures of earth - continuously learn about our association with soil, water and sun to build "trust" with the earth.

Each member of KOA group companies is concerned about life cycle of water that surrounds us, and strives to create a model for circulatory society in our hometown by implementing "Father Sun" (Environmental Management System) through self-imposed responsibility.

### Policy:

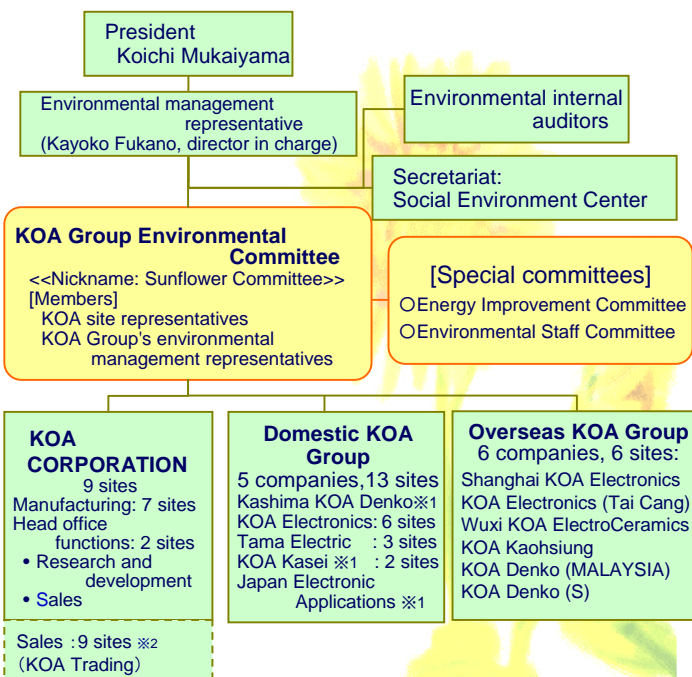
- (1) We shall accurately grasp how KOA's development, production, sales activities, product and services affect the environment to establish "Father Sun" (Environmental Management System) and try to continuously improve "Father Sun" as we strive to prevent the environmental pollution.
- (2) KOA's environmental activities shall be developed into two: one is the "Father Sun" activity for improving responsiveness to the social environment and the other is the quality assurance activity for improving responsiveness to the product environment.
- (3) We shall adhere to environmental legislations and regulations applicable to KOA's environmental aspect, other requirements (including those imposed by our customers) accepted by KOA, as well as self-imposed standards; and all members of KOA shall take actions in consideration of the natural environment by embracing environmental management manual and quality manual.
- (4) To take actions consistent with the philosophy of this policy, we shall review each year our environmental improvement activities in pursuit of realizing business affairs in harmony with the environment, in pursuit of realizing the effective use of finite natural resources, in pursuit of realizing products and production processes friendly to the environment, and in pursuit of stopping global warming, in the framework of management objectives and targets.
- (5) We shall conduct environmental internal audits and strive to continuously improve "Father Sun" through self-imposed control.
- (6) This environmental policy shall be disseminated to all members involved in environmental activities at KOA and all KOA group entities to improve our corporate environmental awareness.

April 01, 2005

Koichi Mukaiyama, President of KOA Corporation

## The "Father Sun" Promotion System ~ The activities intended for all people who work for KOA ~

### Organizational Structure for KOA Group Environmental Activities



※1 Multi-site Certification Sites: The reference to KOA Corporation and the sites integrated into ISO14001 system.

※2 The sites excluded from ISO14001 registration: The sites "Father Sun" activities are carried out based on KOA's environmental management system

### The Structure for Social Environmental Activities

The 12 companies encompassing 28 sites in Japan and overseas, which are mainly factories of KOA Group, are ISO14001 certified. The facilities in Japan (referred to as "KOA Group (Japan)" in this report) strive to engage in effective and efficient activities of eliminating social environmental waste by unifying environmental targets and integrating environmental systems (multi-site certification). The facilities in overseas (referred to as "KOA Group (Overseas)" in this report), due to differences in regulations and infrastructures related to social environment and in the sense of value individuals embrace, engage in activities by partially sharing the "KOA Vision" and environmental targets to adjust to the circumstances unique to each overseas location.

Recently, we have become conscious of the need to reduce environmental burden that is generated indirectly from regular activities. And through instituting the "KOA's Vision", we will be rolling out our activities to sales sites in Japan and we are preparing to include our overseas sales sites in the scope as well.

In this report, out of 18 KOA Group companies, we have focused on 13 companies shown on the left, out of which only the activities in Japan were introduced.

### The Roll Out of Environmental Activities to Sales Sites

To enable all people working for KOA to practice the "Father Sun" activities, we have rolled out our activities geared for the conformance to ISO14001 to sales offices and companies encompassing 9 sites in Japan. We opted to expand the scope by believing sales offices and companies making this commitment helps KOA to promote sales in environmental businesses, where the growth is anticipated, which ultimately leads to the strengthening of the organization.

In 2001, we had training sessions for managers and we reestablished the channel for treating discharged wastes, the adherence to which tends to be lax in offices, to first ensure conformance to our environmental policy and vision.

### The System for Product Environmental Activities

The KOA Group, in responding to product-related laws and regulations and customer requirements, regulates the content of environmentally hazardous substances in all phases of its business flow, and we established a management system for product environment, which is incorporated into our quality management system, to advance our activities for providing high quality and excellent service.



## The Achievements of "Father Sun" Strategy (Social Environmental Targets)

~ Activities for striving to realize circulatory society ~

The KOA Group, after accomplishing its long-term goals for 2010, has set "prevention of pollution", "effective use of finite natural resources", "prevention of global warming (promotion of energy conservation activities)" as common long-term goals for the year 2011 to 2015 and is now actively engaging in activities.

AC	Long-term goals (2015)	2011 Targets	Assessment	Status
I	Prevention of pollution (accidents prevention-compliance)	No environmental accidents : Execute prevention / improvement measures on environmental effects each fiscal year.	◎	①Maintained the status of "no environmental accidents" in Japan and overseas. ②Identified (at Japan sites excluding some) risks on social environment stemming from a big earthquake, and introduced risk mitigation measures.
III	Effective use of finite natural resources (Reduce final disposal rate to less than 1% and cut total emissions and discharges per unit of production below 2010 results)	①Continually reduce emissions and discharges	◎	①Overseas sites had targets set for emission and discharges per unit of production and reduction of designated discharged wastes, and achieved many of them.
		②Maintain the status of zero emissions and cut emissions and discharges per unit of production below 2010 results.	◎	②Japan sites maintained the status of zero emissions (final disposal rate of less than 1%) and cut total emissions and discharges by approximately 290 tons (or 19%) from last years results to achieve the target.
IV	Prevention of global warming (Promotion of energy conservation activities) (Reduce CO2 emissions from fuel combustion by 5% in 2015 from 2010 results)	①Execute continuous energy conservation activities.	◎	①Overseas sites had targets set for reducing energy usage per unit of production, converting equipment to high-efficiency specifications, etc., and achieved many of them.
		②Reduce CO2 emissions from fuel consumptions by 1% from 2010 results.	×	②Even though CO2 emissions from fuel combustion in Japan were down approximately 1,200 tons from last year, the reduction of CO2 emissions per unit of production was 0.5% point short of the target 1%.

Continuation based on Long-term Targets

AC	2012 Targets
I	No environmental accidents
III	Continuous reduction of emissions and discharges (Maintain the status of zero emissions and cut emissions and discharges per unit of production below 2010 results.)
IV	Continuous energy conservation activities (Reduce CO2 emissions from fuel combustion by 2% from 2010 results.)

◎: Achievement; ×: Short of Achievement

### Environmental Performance of KOA Group (Japan)

KOA Group (Japan) Material Flow Chart

INPUT	Business Activity	OUTPUT
Crude oil equivalent energy consumption 15,450 kL (Vs. last year: Down 5%)	Design, development, manufacture, and sale of resistors and other electronic parts	CO2 emissions from fuel combustion : 24,000t -CO2 (Vs. last year: Down 5%)
Clean water: 88,570m3 (Vs. last year: Up 13%)		Emitted substances • Reused: 79 tons • Recycled: 1,250 tons • Disposed: 11 tons (Vs. last year: Down 17%)
Quantity of substances subject to PRTR contained in purchased materials: 53 tons	Products Vs. production volume of last year : -8%	Substances subject to PRTR Quantity transferred to the environment: 25 tons Quantity transferred to emitted substances: 19 tons

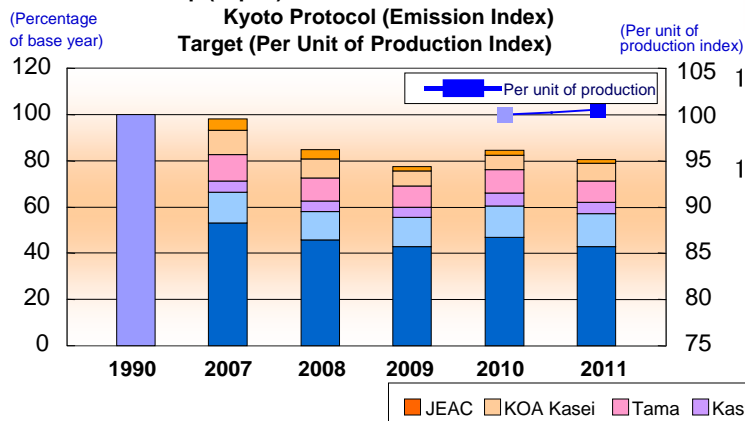
### The Achievements of Undertakings Associated with "Father Sun" Strategy (Social Environmental Targets)

In the Target IV, "Prevention of global warming (Promotion of energy conservation activities)", KOA Group (Japan) has striven to reduce CO2 emissions from fuel combustion per unit of production; however, our efforts to curve CO2 emissions, which we achieved a 5% reduction, could not make up for reduced production output of 8%, thus we failed to hit our target. As a corrective action, we have introduced the "Enforcement of energy conservation through taking complete control" to group companies in Japan to require efficient operation of machinery, operations synchronized to production output, etc. to suppress unnecessary energy usage.

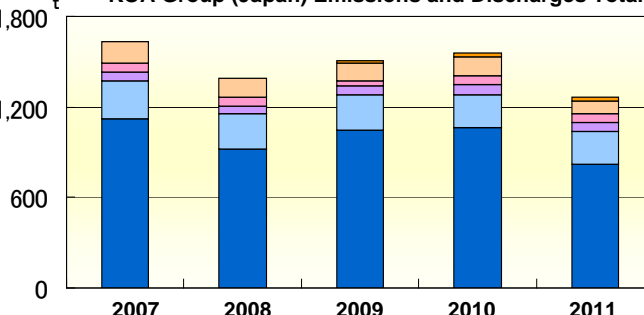
On the other hand, thanks to group-wide efforts to cut emissions to 92% of 1990 emission levels, which was our long-term goal, for the year 2011, we reduced emissions to 81% of 1990 emissions levels to exceed the target by more than 10%, to be in line with what is expected for the commitment period of the Kyoto Protocol.

KOA Group companies in Japan made the commitment on the Target III, the "Effective use of finite natural resources", through promoting the 3R ("Reduce", "Reuse", and "Recycle"), cutting materials usage by changing product design, halving waste fluid from special processes, reusing recycled cleaning solvent, using returnable boxes for purchased materials, reducing defects, etc., to eliminate social environmental wastes introduced in production facilities. The accumulation of improvement measures we introduced and reduced production output enabled us to reduce emissions and discharges by approximately 290 tons from the previous year.

KOA Group (Japan) CO2 Emissions from Fuel Combustions  
Kyoto Protocol (Emission Index)



KOA Group (Japan) Emissions and Discharges Total



## The Topics for “Father Sun” Strategy (Environmental Objectives Targets)

~ Environmental improvements in all aspects of our business activities ~

### Realization of Products and Production Processes with Less Environmental Burden

#### Contribution to Energy Saving with the development of current sense resistors and the establishment of efficient manufacturing

KOA is developing, manufacturing, and selling a wide variety of so-called Shunt Resistors used for current-sense purposes.

Since the 3.11 Earthquake, amid concerns over electricity shortage with the phase-out of nuclear power plants, an urgent need has arisen to realize an energy conservation oriented society. For example, by accurately measuring the current of various functions of electric appliances, such as air-conditioners and refrigerators, to meticulously control the inverter, efficient use of power to conserve energy becomes possible.

Our current-sense resistors (TLR Series and PS Series) are used in great quantity for this task. Especially, our TLR-series resistors use metallic alloy to reduce the resistance to extremely low 1mΩ, which enables detecting the current while suppressing the power consumed by the resistor.

“TLRH 2A”, which was added to TLR Series in 2011, achieved a reduction of over 10%, since the start of mass production, in energy and raw materials consumed in production through improving the yield.

Going forward, we, to play a vital role in this society, will continue to review our product design, production equipment, and production efficiency to realize products and manufacturing processes with less environmental load.



### Compliance: Adherence to Laws and Regulations

#### Violations to social environmental laws and environmental requirements : 0 cases

KOA Group companies (in Japan and overseas) are committed to the continuation of Target I “Zero Environmental Accidents”, and by focusing on significant environmental aspects identified in environmental impact evaluation, we are seeking to prevent environmental accidents and claims. For 2011, we maintained the status of zero environmental accidents and claims that had an impact outside of KOA.

KOA Group companies in Japan send representatives to Environmental Staff Committee, where group companies share and deliberate on the status of dealing with environmental laws to maintain and ensure compliance.

#### Power saving initiatives

In the summer of 2011, Tama having its headquarters in Fuchu City, Tokyo Prefecture, which is under the jurisdiction of Tokyo Electric Power, where “electricity usage restrictions” in accordance to the Article 27 of the Electricity Business Act was enforced, switched to Saturday and holiday operations in April and intentionally idled the equipment in rotation, in conjunction with the shut down of air-conditioners and compressors to successfully cut the electricity usage by 15%, which was also attributed to the use of generators in peak energy hours. Even though Tama consumed more diesel, total energy consumption was down. Other Tama sites also played their part by cutting back on power usage during peak energy hours to contribute to Tama’s overall reduction in energy consumption.

## Activities for the Tenryu River System and Local Communities

~ Together with families and the people of local community ~

**Assets generated through the association with nature and people of all walks of life**

Assets	Enterprise	Human Resource Development	KOA Group Award commendation system and Craftsperson
		“Father Sun” Activities	Reduction of environmental loads caused by corporate activities
	Community	Association with People	<div><div></div><div></div><div></div><div></div><div></div></div> <div>Nurturing of juveniles in the community Ashita-no-manabiya KOA Forest Management Class KOA Woodwork House The Society for Recycling System Ina Valley Foundation Integration of Farming and Manufacturing The undertakings on biodiversity</div>
		Association with Forests	
		Association with Water	
		Association with Soil	
		Pleasure and responsibility as a member of the Ecosystem	

### Biodiversity Activities

#### The activities of KOA Forest Management Class

KOA Forest Management Class was established in 1994 with the purpose of fostering guardians of the mountains dedicated to protecting the forests of this community where untended rural landscapes continued to deteriorate.

- We wanted people to know the current state of forest area.
- We wanted people to learn the skills to manage the forest area.
- We wanted people to feel the enjoyment of working in forest area.
- We wanted to create opportunities for people to rethink their lifestyle.

These were the wishes we had in creating courses, such as tree planting, forest measurement, surveying, tree thinning, and trimming, to manage mountains. Over the span of 18 years, we have fostered over 500 “mountain guardians” to contribute to the preservation of rural landscapes.



#### Promotion of Forest Preservation

The total area of KOA Pine Park and surrounding forest is 10ha with the forest mainly consisting of red pine trees. As a preventive measure against weevil damage, which is spreading in Kami-Ina area, we are engaging in tree thinning and soil improvement to ensure each tree in the forest remains healthy with resistance to pests.



From 2011, after obtaining the consensus of the owners of surrounding forests, we have been maintaining these forests in addition to ours. By taking advantage of being lowland forest, in the process of maintenance, we have been holding chainsaw courses to teach forest thinning to employees and letting local high school to use the forest for forest thinning practice. “We grow the trees and use them.” This is our slogan of circulation, and we continue to maintain the forests of this area together with our employees and people of this community.

### Regional Contribution Activities of KOA Group Companies

#### Kashima KOA : Providing Environmental Catering Courses to Interact with the People in the Community

At Kashima KOA, households, schools, business institutions, and local government are joining together to come up with ideas to curve CO2 emissions to halt global warming.

In June, in conjunction with light dimming campaign to reduce CO2 emissions, we visited an elementary school to provide students a catering lecture course on global warming.

Also, we were recognized for activities such as this and the results attained in continuous energy conservation initiatives, and we consequently received an award from the Hokuriku Branch of the Japan Electric Association for being an outstanding business institution for energy management.



#### Tama Electric :

#### Cleaning of Surrounding Area with Employees' Families

At the same time the Environmental picnic is held in May in Ina region (for a full-scale cleaning of the Tenryu river, in which KOA, KOA Electronics, and KOA Kasei participate), Tama’s employees and their families took part in the cleaning of the area around the factory, in addition to Tama river for the people of Fuchu factory and Kami river for the people of Sanada factory.

In 2011, combined 50 people in the Fuchu and Ueda districts participated to improve their awareness to contribute to local community.



# "Father Sun" Activities Annual Report ~2011 KOA Site Report~

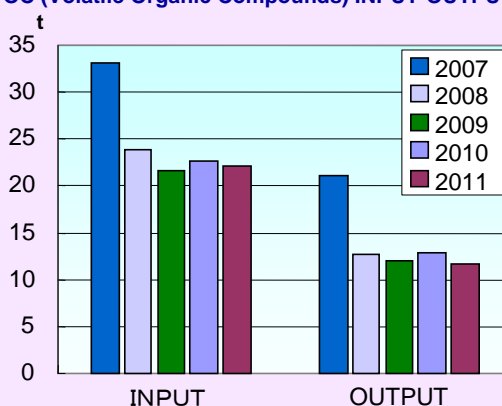
## KOA Corporation Company Profile (ISO14001 Registered Sites)

- Earthwing (Minowa-machi Kamiina-gun) : Headquarters and research and development of electronic components
- Ina Office (Ina City) : Quality assurance, sales, sales support, and manufacturing support
- Eastwing (Minowa-machi Kamiina-gun) : Design, development, and manufacture of resistors, circuit protection devices, and inductors
- Nishiyama Factory (Ina City): Design, development, and manufacture of resistors, inductors, resistor/capacitor network, and circuit protection devices
- MINOWA Wing (Minowa-machi Kamiina-gun) : Design, development, and manufacture of resistors and hybrid IC
- Minowa Factory (Minowa-machi Kamiina-gun) : Design, development, and manufacture of resistors, inductors, and circuit protection devices
- Chuo Factory (Minaminowa-mura Kamiina-gun) : Design, development, and manufacture of multi-layer ceramics
- Takuminosato (Iida-shi) : Design, development, and manufacture of resistors and circuit protection devices
- Achi Factory (Achi-mura Shimoina-gun) : Manufacture of resistors

## Environmental burden ~Material Flow~

INPUT	Business Activities	OUTPUT
Crude oil equivalent energy consumption: 8,550 kL (Vs. last year: Down 6%)	Design, development, manufacture, and sale of electronic components (e.g. resistors)	CO2 emissions from fuel combustion: 12,790 tons-CO2 (Vs. last year: Down 6%)
Clean Water: 73,080 m3 (Vs. last year: Up 21%)	Products Vs. Last year's production output : Down 15%	Emitted substances • Reused: 48 tons • Recycled: 814 tons • Disposed: 9 tons (Vs. last year: Down 22%)
Quantity of substances subject to PRTR contained in purchased materials: 23 tons (Vs. last year: Down 4%)	Substances subject to PRTR contained in products transferred quantity: 7 tons (Vs. last year: Up 1%)	Quantity of substances subject to PRTR Quantity transferred to the environment: 5 tons (Vs. last year: Down 8%) Quantity transferred to emitted substances : 11 tons (Vs. last year: Down 3%)

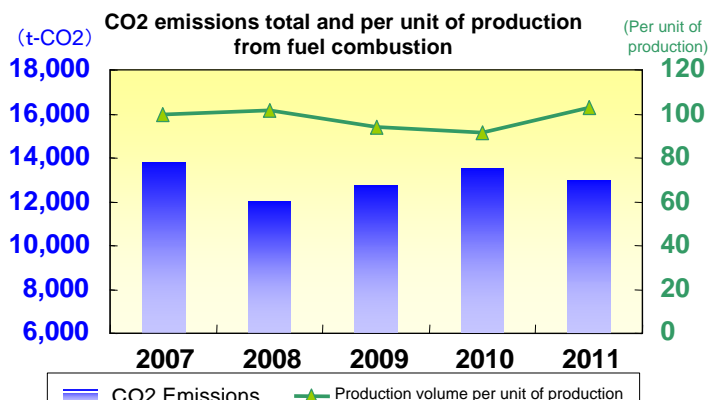
## VOC (Volatile Organic Compounds) INPUT-OUTPUT Trends



## "Father Sun" Activities Topics

◎: Achievement; ×: Short of Achievement

AC	2011 Targets	Assessment	Status
I	No environmental accidents : Enforce prevention / improvement of environmental effects each fiscal year	◎	Maintained the status of "0" environmental accident; Identified approximately 180 risks that affect social environment when a big earthquake strikes, and on the risks countermeasures need to be taken, we introduced environmental accident risk mitigation measures.
II	Complete at least one improvement theme a year related to the "Realization of operations in harmony with the environment and products and production processes friendly to the environment"	◎	R&D department engaged in a wide variety of activities ranging from installing energy conservation features in production processes, changing product design to reduce wasted materials, and hosting seminars to recommend the optimum usage methods of our products
III	Maintain the status of zero emissions, and reduce the total emissions and discharges per unit of production to less than 2011 results.	◎	With the accumulation of small improvements, we exceeded the target of reducing the waste fluid from special processes by 1.0%, and we exceeded the target of reducing the generated wastes (excluding those from special processes) by 8.2%.
IV	Reduction of CO2 emissions from fuel combustion per unit of production by 1% from 2010.	×	Despite cutting CO2 emissions from fuel combustion by approximately 790 tons from last year, we failed to hit the per-unit-of-production CO2 emission target by missing the target of 1% by 2.9%.



Note: Per unit of production numbers are normalized to the base year of 2007.

