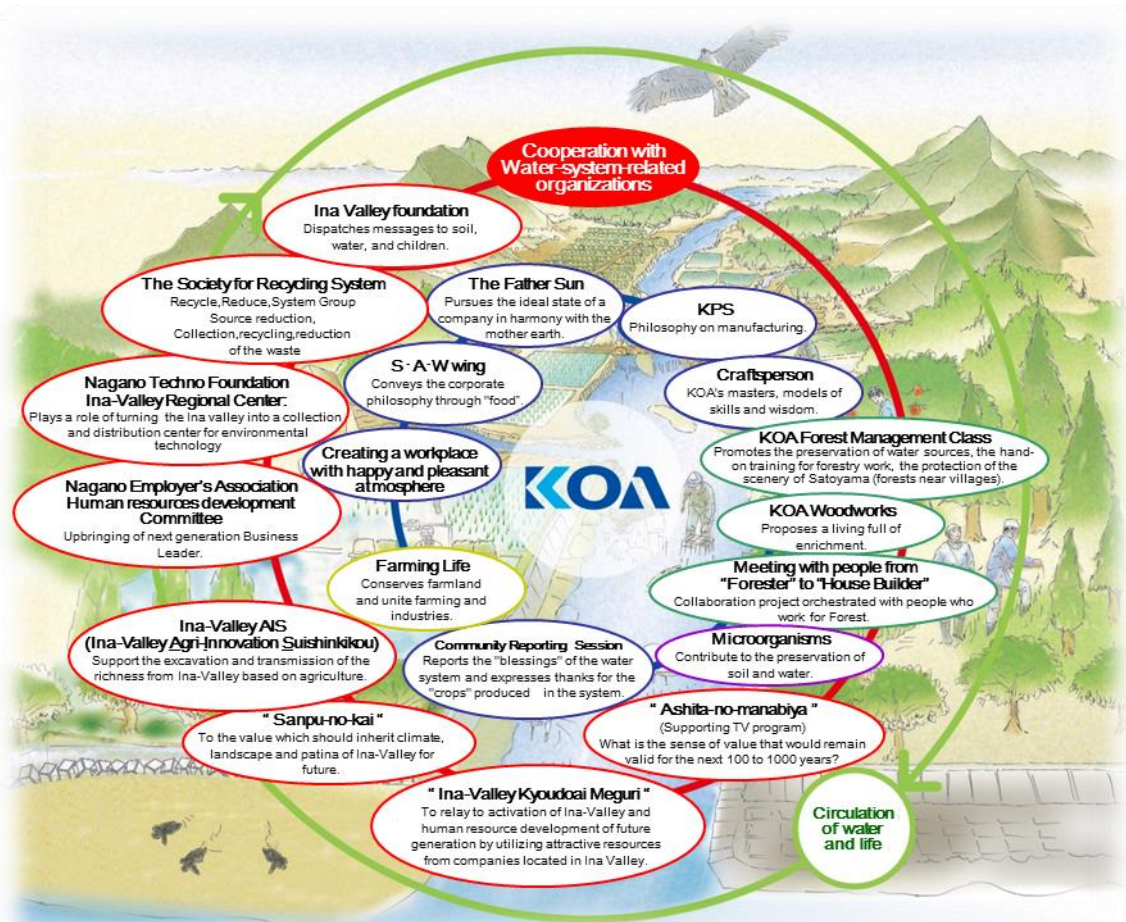


# KOA Group Annual Report of the "Father Sun" Activities 2015



This figure shows the framework of KOA's environmental conservation activities in the water system of the Tenryu River system extending from Lake Suwa to the Sea of Enshu.

The KOA Group embraces "circulation", "harmony", "finite", and "enrichment" as the fundamental value of corporate management, and is conducting various experiments to build models for perpetually circulating local society.

## KOA's mission and the "Father Sun" Activities

The KOA Group regards establishing the bond of trust with 5 Stakeholders – "Shareholders", "Customers and Business Partners", "Community", "Employees and Their Families", and "Mother Earth" – its corporate mission. The "Father Sun Activities" is a name bestowed upon KOA's environmental management system which aims to assort with Earth, creates the model of circulating local society and it's instilled our dedication to do the activities which we can be extremely confident with "Father Sun".

With the introduction of KOA's Vision "Earth" in 2011, the basic thinking of all people working for KOA Group companies promoting business practices in harmony with environment and activities that do not burden the environment was presented. As we seek the permeation of our vision, KOA Group companies working in concert are engaging in Father Sun environmental preservation activities.

### ■ KOA's Vision "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 perpetually circulating society.

## 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, Hanagata Tadao

Employees : 1,338 (As of March 31, 2014)

Business Description

: Design, development, manufacture, and sale of various electronic components

●KOA Group Profile

Company structure : (Consolidated) 5 companies in Japan and 10 companies in overseas

: (Non-consolidated) 1 company in Japan and 2 company in overseas

Employees : 4,038 (As of March 31, 2015) (Japan) 2,077 (Overseas) 1,961

●Environmental Management Representative

: Managing Director, Kayoko Fukano

●ISO14001 Certification Number

: JQA-EM0155 (Registered in April 1998)

●Contact : Social Environment Group

CSR Promotion Center

Management Administration Initiative

【TEL: 81-265-70-7171 (main number) 】

【URL: <http://www.koaglobal.com/> 】



## KOA Environmental Policy

At KOA Group, under this policy, all employees are engaging in the “Father Sun” 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.

With each employee being interested in the circulation of life in the water system that is essential to one's community in responsibly practicing the “Father Sun” (Environmental Management System), we will preserve the biodiversity of the land of our roots to create a model for perpetually circulating society.

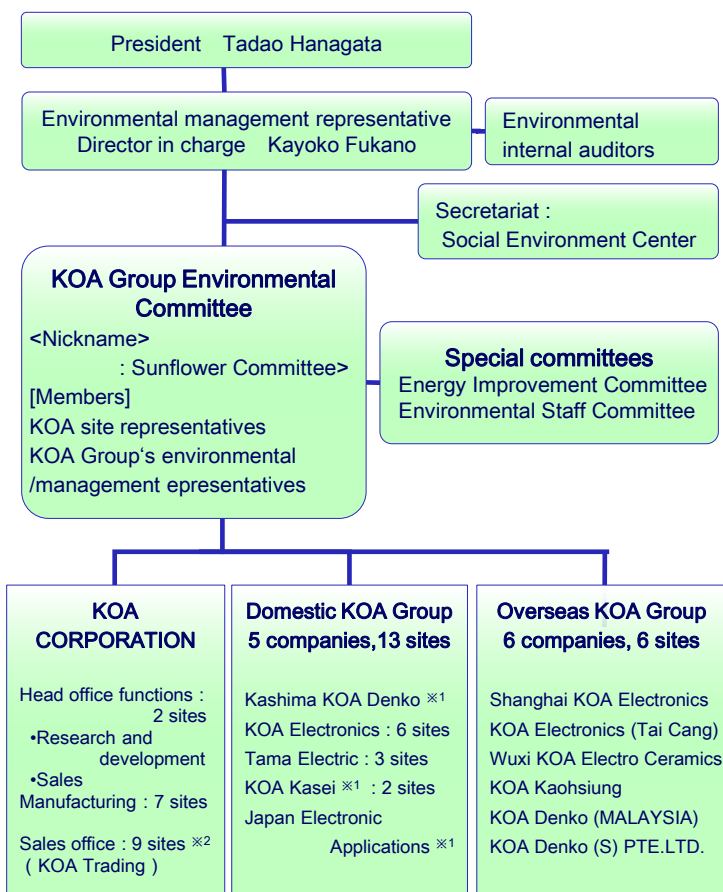
### Policy

- (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) All employees shall adhere to laws and regulations relevant to KOA's environmental aspects, other requirements (including customer requirements) KOA has agreed to abide by, and voluntary standards, to engage in activities conscious of natural environment based on the Environmental Manual and the 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 (energy conservation), in the framework of management objectives and targets.
- (5) We shall conduct internal environmental 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, 2013

Tadao Hanagata, President of KOA Corporation

## The “Father Sun” Promotion System



※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

### Notable fiscal year 2014 Father Sun activities

- 1) At the new factory, Sanada no sato, of Sanada KOA Corporation completed in October 2013, Father Sun activities have started. Since then, it went through law-abiding audit and internal environmental audit processes, and in the periodic environmental audit of December 2014, it was successfully ISO14001 registered.
- 2) Because of lecturing proper classification of citations other than non-conformances into Opportunities for Improvements, Suggestions and Oral Citations in the follow-up seminar held annually for internal environmental auditors, we successfully suppressed the deviation in the quality of judgment, which varied from one team to another. And with each team becoming more adept at making suggestions that lead to greater efficiencies (or reduced redundancies) and risk prevention, internal environmental audit has evolved into an event to propose system and operational improvements.
- 3) To clarify the facilities and equipment requiring proper maintenance for the purpose of bolstering controls on them, we have newly identified the facility/equipment subject to legal restrictions, requiring the appointment of qualified maintenance person and the sending of the notification of installation.
- 4) We have taken electric rate hike (which started from April 2014) and tight energy supply as social environmental risks to prompt company-wide energy saving initiatives by involving all KOA Group companies in Japan and overseas.
- 5) We have taken conforming to the EICC Code of Conduct as one of our critical obligations, to initiate activities to ensure compliance.

### Initiatives on Product Environment

To respond to the laws governing products and the requirements of customers, we have established a management system for product environment within our Quality Management System to engage in activities for providing high quality and service.

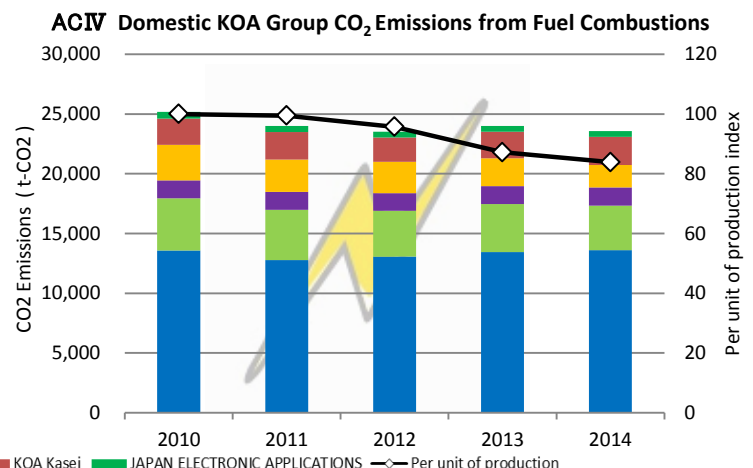
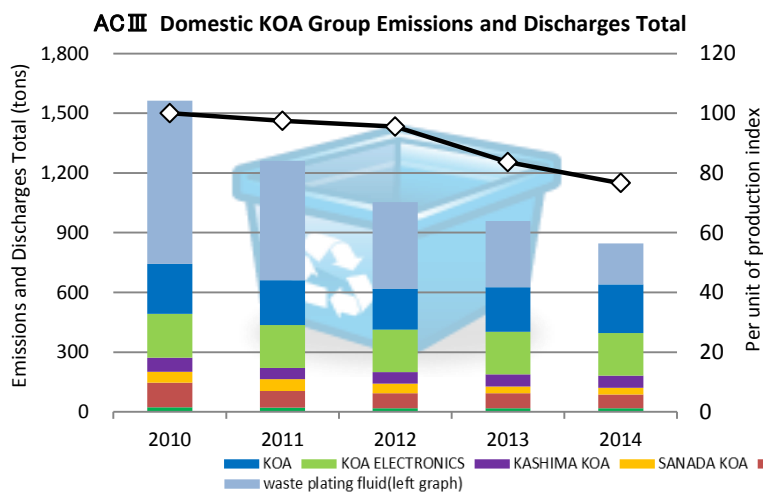
## The Achievements of "Father Sun" Strategy FY2014

We have put up the following 3 common long-term goals through the year 2015 for the KOA Group to facilitate Father Sun activities on a per business establishment basis.

AC	Long-term goals	FY2014 Targets	Outcomes and achievement	2015 Targets
I	Prevention of environmental impact (Prevention of pollution・Compliance)	No environmental accidents. : Execute prevention / improvement measures on environmental effects each fiscal year.	× At two sites, there were incidents classified as environmental accidents of exceeding statutory limits.  Nanakuri-no-mori: The values of pH, BOD and animal oil concentration in wastewater from its kitchen exceeded the threshold values set in the agreement on industrial pollution control.  KOA Taicang: The value of COD in the wastewater from its kitchen exceeded the threshold value of local (China's) wastewater regulations.	No environmental accidents
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)	Continually reduce emissions and discharges.  Maintain the status of zero emissions and cut emissions and discharges per unit of production below 2010 results.	◎ In Japan, computerizing vouchers (and other work paper) and extending the usage/shelf lives of raw materials to reduce disposed raw materials have helped us to maintain the Zero Emissions status (of final disposal rate being less than 1%) and cut the amount of disposed materials by 131 tons or 14% from last year and by 733 tons or 23% from 2010.  ◎ In overseas, continuous efforts to curtail disposed materials contributed to reduced use of packaging materials and discharges of plating effluent and washing wastewater.	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	Prevention of global warming. (Promotion of energy conservation activities) (Reduce CO <sub>2</sub> emissions from fuel combustion by 5% in 2015 from 2010 results)	Execute continuous energy conservation activities.  Reduce CO <sub>2</sub> emissions from fuel consumptions by 4% from 2010 results.	◎ Carbon dioxide emissions from energy use in Japan was less by 433 tons of CO <sub>2</sub> from last year to achieve a reduction of the basic unit (CO <sub>2</sub> emissions per unit of production) by 16% against the target of a 4% reduction versus 2010 emissions.  ◎ With our actions to address the risk of facing electricity shortage, KOA Group companies in Japan have achieved an annual power reduction equivalent to approximately 800 tons of CO <sub>2</sub> .	Continuous energy conservation activities (Reduce CO <sub>2</sub> emissions from fuel combustion by 5% from 2010 results.)

Continuation based on Long-term Targets

Level of achievement ◎ : 100% ○ : More than 70% △ : More than 50% × : Less than 50%



### Domestic KOA Group Material Flow Chart

INPUT	Business Activity	OUTPUT
<b>Crude oil equivalent energy consumption</b> <b>16,339 kL</b> ( Vs. last year : Up 4% )	<b>Design, development, manufacture, and sale of resistors and other electronic parts</b> (Products Vs. production volume of last year : Up 6% )	<b>Emitted substances</b> • Reused : 80 tons • Recycled : 842 tons • Isolated : 3 tons ( Vs. last year : No change )
<b>Clean water</b> <b>114,498 m<sup>3</sup></b> ( Vs. last year : Up 6% )	<b>Product containing the amount of movement of the substances subject to PRTR</b> <b>24t</b> ( Vs. last year : Down 4% )	<b>CO<sub>2</sub> emissions from fuel combustion</b> <b>24,784t-CO<sub>2</sub></b> ( Vs. last year : Up 3% )
<b>Quantity of substances subject to PRTR contained in purchased materials</b> <b>82 tons</b> ( Vs. last year : No change )		<b>Quantity transferred Substances subject to PRTR</b> • to the environment : 16 tons ( Vs. last year : Up 7% ) • to emitted substances : 33 tons ( Vs. last year : No change )

### Undertakings to address the risk for electricity shortage

To alleviate the effects of electricity shortage on our operations, we have undertaken measures, such as negotiating lower rates by accepting lower peak power, strictly controlling (and promoting improvements of) facility operations for energy conservation, and periodically switching utility systems to higher efficiency systems at KOA Group facilities in Japan. Some of the energy conservation measures implemented in Japan, such as replacing the components of heat-producing systems to more energy-efficient units, installing ventilation for better circulation, introducing flexible production management (which adjusts to demand) and eliminating frequent production line stoppages, were rolled out to KOA's overseas companies to help them embark on more strict controls on their operations.

Also twice a year, in summer and winter, we have encouraged employees to come up with slogans to inspire energy conservation and posters to promote environmental consciousness to instill the mindset of environmental preservation upon all employees.



始めよう!  
脂質、糖質、  
電力カットで  
体質改善!

断熱・ウォームビズ・  
省エネで乗り切れ  
「ピークカット冬の陣」



## Compliance Verifying legal compliance

After an incident of wastewater from kitchen exceeding effluent standards, we have promptly reported the incident to local government and conducted an investigation to find the root cause and then introduced suitable corrective actions, including mandating the use of a grease trap. The impact on the environment caused by this incident was negligible, and neither penalties nor disciplinary actions were imposed.

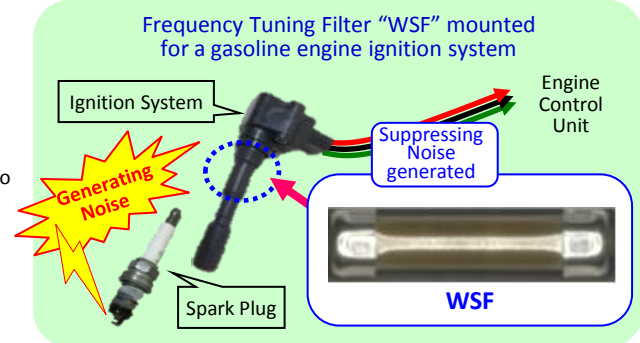
After this incident, we have reestablished the contact system to respond to emergencies, and instituted a new rule to designate all events that lead to environmental accidents as significant environmental aspects. Through environmental aspects investigation to pinpoint similar risks lurking in other business establishments, we will introduce appropriate corrective actions and strengthen controls to strive to prevent environmental accidents.

## Manufacturing realizing products and processes with little environmental burden

Automobile manufacturers are actively exploring a range of advanced technologies for greater low fuel consumption of gasoline engines and cleaner exhaust emissions. The development of lean-burning gasoline engines is one example of their undertakings. Igniting low-concentration gasoline requires voltage higher than normal, and greater noise level generated by spark plugs can cause malfunctioning of many electronic devices automobiles are equipped with. To address this concern, KOA has developed a new product Frequency Tuning Filter “WSF”, which effectively suppresses noise-causing electric currents, to play a part in accelerating the development of lean-burning technology.

As WSF requires winding of many layers of wires with a diameter less than human hair around a cylindrical core, conventional manufacturing method required running several tens of machines. But with the development of production processes with dramatic productivity improvement, the number of machines was cut to a minimum to help realize manufacturing with low power consumption.

Going forward, we will continue to engage in new products development and production equipment advancement for the sake of reducing environmental burden.



## Model building for perpetually circulating local society

### Our view and approach toward the business asset.

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

## Butterflies coming to Nankurinomori

With the Nanakuri-no-mori being built with the concept “Blending in with village forest and local culture”, a variety of plants were planted when the factory was completed in 2012. And with continuous caring since then, row planting of bamboo-leaf oaks made them look like a green wall and the periphery of the Harunire-no-shuku (cafeteria + training complex) is beginning to radiate a feel of an inn town. Clusters of trees were planted to surround the Kobo Nokogiri-yane (a manufacturing facility) and there is a green corridor leading to the Mekki-Kobo (a plating facility). And bushy trees like hydrangea, Japanese spirea and azalea are springing up from clover meadow, and on top of them, tall trees like hackberry, oak tree, Sargent’s cherry, Hornbeam, Sal tree and Kobushi magnolia are now spreading their branches.



At the completion of the factory

Trees and biotope started to nurture lives



Only three types of butterflies were observed right after the completion of the factory. But now the number of butterfly species coming to the factory has expanded to 28, and we have the privilege to watch butterflies like High Brown Fritillary, Small Copper, White Admiral, and Glacial Apollo

. As we hope to attract even more insects and birds, we will be promoting the growth of vegetation to make the factory blend in with village forests of the community.



High Brown Fritillary



Small Copper



White Admiral



Glacial Apollo

## KEES Project: Forest Management Vitalization Undertaking

In collaboration with local forestry operators, lumber suppliers and Ina City Revitalization Committee, “KOA Mokkousha (Woodworking Department)” of KOA Kasei Co., Ltd, which has been proactive in the manufacturing and sale of exquisite woodwork utilizing timber from forest thinning has launched the “KEES Project” for the objective of forest maintenance and conservation through the sale of multi-purpose blocks “KEES” made from forest thinnings.



Forest thinnings from small-diameter trees and bent trees are yet to be effectively utilized. KEES makes use of such unexploited resources, and KOA Mokkousha makes 2 sets (which represent 40 pieces of block) of KEES from each log. Thus buying a set of KEES is equivalent to sponsoring the thinning of half of a log, and a certificate stating the forest you have contributed in forest thinning is issued and comes with the KEES.

KEES, which can be assembled into a variety of goods with people’s imagination and ideas, is used to protect planted zone and is also used as educational material in events to teach children the advantages of wood.



At Nanakuri-no-mori, KEES is used as the cover for the flower bed. The entrance has gotten a warm atmosphere.

