KOMATSU

2015

Environmental Report Digest

Contents

Editorial Policy

- The Environmental Report Digest 2015 is a digest regarding environmental activities, based on content from the "Environmental Report" and "Data" from the website.
- As part of the initiatives in the environmental field, we have presented the new main initiatives or representative activities.
- The content of the "Environmental Report" and "Data" can be viewed on our website, as well as (1) general information, such as policies and general rules, (2) information on ongoing activities and initiatives, and (3) a comprehensive disclosure of detailed and related information.
- Each item of the "Environmental Report" and "Data" on this website indicates that it has received an independent practitioner's assurance.

Website: http://www.komatsu.com/CompanyInfo/csr/

Scope of This Report

Komatsu (parent company) manufacturing facilities, specifically the following eight plants

The Awazu Plant [including the Komatsu NTC Ltd (KM Division).], the Kanazawa Plant [including the Kanazawa-Daiichi Plant and the Kanazawa-Daini Plant], the Osaka Plant [including the Rokko Plant], the Ibaraki Plant and the Oyama Plant [including Komatsu Cummins Engine Co., Ltd., Industrial Power Alliance Ltd. and GIGAPHOTON, Inc.], the Koriyama Plant, and the Shonan Plant [including KELK Ltd.], the Tochigi Plant.
Komatsu Group manufacturing facilities in Japan, specifically the above eight plants and the following four business units
Komatsu Castex Ltd., Komatsu Cabtec Co., Ltd., Komatsu NTC Ltd. and Komatsu House Ltd.

Komatsu Group manufacturing facilities outside Japan, specifically the following 20 plants

Komatsu America Corp.,[Chattanooga Manufacturing Operation], [Peoria Manufacturing Operation], [Newberry Manufacturing Operation], Komatsu do Brasil Ltda., Hensley Industries, Inc. (The Americas), Komatsu UK Ltd., Komatsu Hanomag GmbH (Germany), Komatsu Mining Germany GmbH, Komatsu Manufacturing Rus, LLC, Komatsu Italia Manufacturing S.p.A (Italy), Komatsu Forest AB (Sweden), PT Komatsu Indonesia Tbk, PT Komatsu Undercarriage Indonesia, Bangkok Komatsu Co., Ltd., Komatsu India Pvt. Ltd., Komatsu Shantui Construction Machinery Co., Ltd., Komatsu (Changzhou) Construction Machinery Corporation, Komatsu (Changzhou) Foundry Corp., Komatsu (Shandong) Construction Machinery Corp, and Komatsu Undercarriage China Corp.
Komatsu Group manufacturing facilities including outside Japan: All of the 32 above-mentioned offices are shown.

Period Covered

This report principally covers data for the period from April 2014 to the end of March 2015, with some information from after April 2015.

A Message from the Environment Supervisor

Desire to contribute to sustainable development while providing a richer life for people.

Tell us about establishing new mid- and long-term objectives.

In regards to CO_2 emissions, each country is setting new objectives for 2020 and beyond in preparation for COP21. Accordingly, Komatsu has also established new mid- and long-term objectives for 2020 and 2030. In setting these objectives, we took into consideration not only CO_2, but our products life cycle, including fuel consumption of products, waste and water input as well as efficient use of resources.

When looking at CO_2 in terms of lifecycle, it has been estimated that 90% of all emissions comes from construction equipment products, making it clear the importance of reducing this amount. In addition, while aiming for further growth in productivity, we have set even more aggressive target values for CO_2 emissions from production. We have also set targets for waste and water input, in order to work towards the efficient use of resources, not only for our plants in Japan but for our plants all over the world.

Tell us about CO_2 reduction in construction equipment products.

In terms of how to reduce CO_2 emissions from construction equipment, we have developed products such as hybrid construction equipment that have excellent fuel efficiency. In 2015, our sphere of activity has been expanded further to include the way in which construction equipment is used, so that we can now offer the new solution "SMART CONSTRUCTION". This is a solution that provides an automated control of innovative work equipment, a revolutionary topographical survey technology, and a system called "KomConnect" to connect data, in order to dramatically improve efficiency on the work site through topographical survey, design, construction management and use of highly advanced automated ICT construction equipment. Based on this development, efficiency can be dramatically improved, and CO_2 emissions from construction equipment will also be greatly reduced.

How are you engaging in the activities involved in production?

The electricity reduction activities that started after the Great East Japan Earthquake of 2011 are progressing to meet the objectives set for 2015.

In 2014, we took a major step forward with the start-up of Awazu's new assembly shop making groundbreaking configuration and high levels of energy conservation capabilities a reality, and with the use of biomass heat supply and electric power generators being instituted at the Awazu plant. Biomass handles both heat supply and electricity generation, making overall high energy efficiency possible. Also, the supply of timber for fuel is being co-produced with the local forest industry, starting up a new activity called "local production for local consumption" to make the most of the local specialty.

Of course, the basics of environmental activities such as "compliance to law", "efficient use of resources" and "improvement of greening ratio" are being consistently pursued as activities to be steadily maintained.

Komatsu will continue to contribute to sustained development while making life richer for people, through products and solutions that have excellent environmental qualities born of advanced technology, and through pursuing revolutionary efficiency at our production sites.

Komatsu
Senior Executive Officer
President, Production Division Supervising Environment

Yoshisada Takahashi

Special Story

Reducing CO_2 Emissions from Construction Equipment

Reducing CO_2 emissions through a synergistic action of "Dantotsu" products, services and solutions

Komatsu's assessments of the CO_2 emissions by Scopes 1, 2 and 3 reveal that CO_2 emissions from the construction equipment being in use account for nearly 90% of the total amount of CO_2 emissions produced throughout its lifecycle, from material procurement to manufacture, usage and disassembly (Refer to "Amount of CO_2 Emissions by Scope 3" on page14).

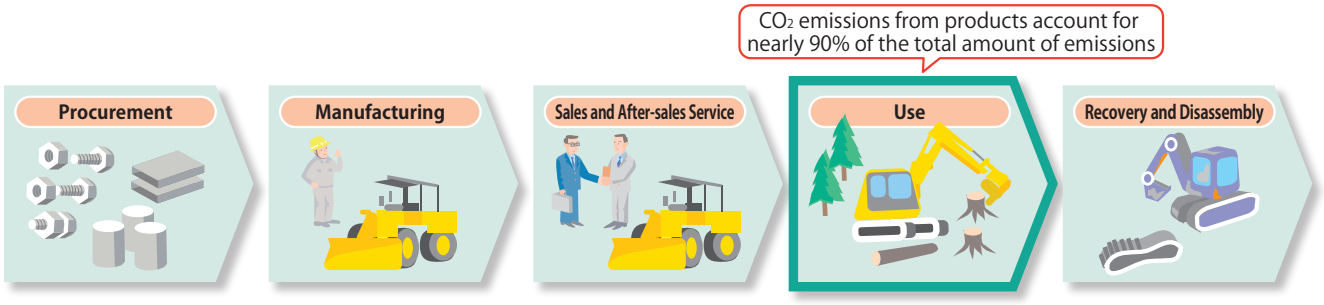
With this in mind, Komatsu has taken a three-step approach to cutting CO_2 emissions from its products.

Step 1 Improve the fuel efficiency of construction equipment ("Dantotsu" products)

Step 2 Cut the fuel consumption of construction equipment through suggested usage improvements ("Dantotsu" services)

Step 3 Drastically enhance construction efficiency and thereby reduce fuel consumption by using automatic control on construction equipment ("Dantotsu" solutions)

Komatsu is broadening the scope of its approach to CO_2 emissions reduction by offering solutions as well as products, and by providing innovative ways to cut CO_2 emissions to its customers.



Lifecycle of Construction Equipment

Step 1

Reduce CO_2 Emissions with "Dantotsu" Product

Komatsu delivers fuel-efficient products to reduce CO_2 emissions. Examples are the hybrid hydraulic excavators launched into the global market for the first time in 2008, which have reduced fuel consumption by 25% on the average when compared with other then-available models.

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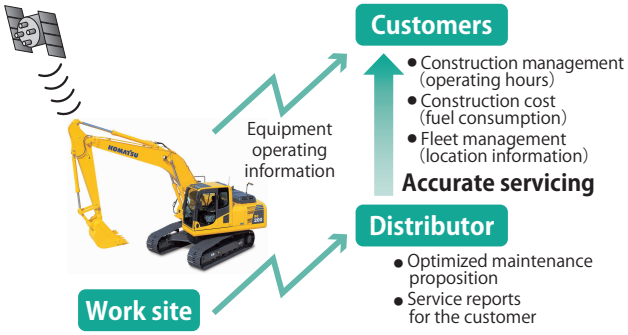
Step 2

Reduce CO_2 Emissions from Products with "Dantotsu" Services (KOMTRAX Usage)

In addition to improving fuel efficiency of products, Komatsu advises its customers on how to use construction equipment to reduce fuel consumption by offering them "visualized" presentations of equipment usage condition data.

A Komatsu-developed vehicle information management system used to this end, KOMTRAX automatically collects operating and health information from the construction vehicles in use around the globe to aid in remote vehicle monitoring, management and analysis. Information collected is not only made available to customers via the Internet but is used to "visualize" equipment operating hours and work hours ,usage and fuel efficiencies, to come up with suggested improvements.

This is how Komatsu supports its customers in their effort to improve fuel efficiencies (that is, reduce CO_2 emissions).



Vehicle Information Management System (KOMTRAX)

Step3

Reduce CO_2 Emissions across Construction Work Flow with "Dantotsu" Solutions

(from computer-aided construction to Smart Construction)

Commitment to computer-aided construction

Computer-aided construction is a plan of activity in which electronic information on one out of a sequence of processes relevant to the implementation of construction works-from surveying and designing, to constructing, testing, inspection and management-that has been obtained using ICT (information and communications technology) is applied to other processes to ensure enhanced productivity, quality, etc. across the process sequence.

Construction equipment loaded with a computer-aided construction system verifies operating equipment location information and 3D design data against each other to assist the operator at work and implement automatic controls, thereby drastically saving previously required finishing stake work and surveying work during construction, and the consequent corrections. The results are shorter construction periods, better construction equipment availability and reduced CO_2 emissions.

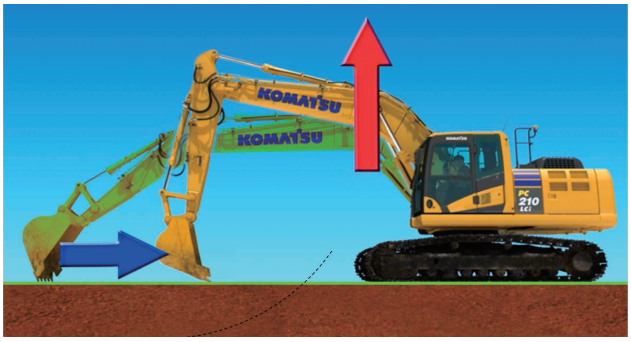
In 2013, Komatsu introduced the world's first ICT computer-aided construction bulldozer, the D61PXi-23-featuring an automatic blade control capability-on the North American, European and Japanese markets. Then in 2014, Komatsu introduced the world's first hydraulic excavator, PC210LCi-10, featuring a semiautomatic control capability into the North American and European markets and the PC200i-10 into the Japanese market. Komatsu expects that these flagship models will help computer-aided construction expand to a broader range of construction sites.

Both models carry a new-generation engine that greatly reduces Nitrogen Oxide (NOx) and Particulate Matter (PM) emissions to address new emissions regulations in effect since 2014 in the U.S. and Europe.

ICT construction equipment features

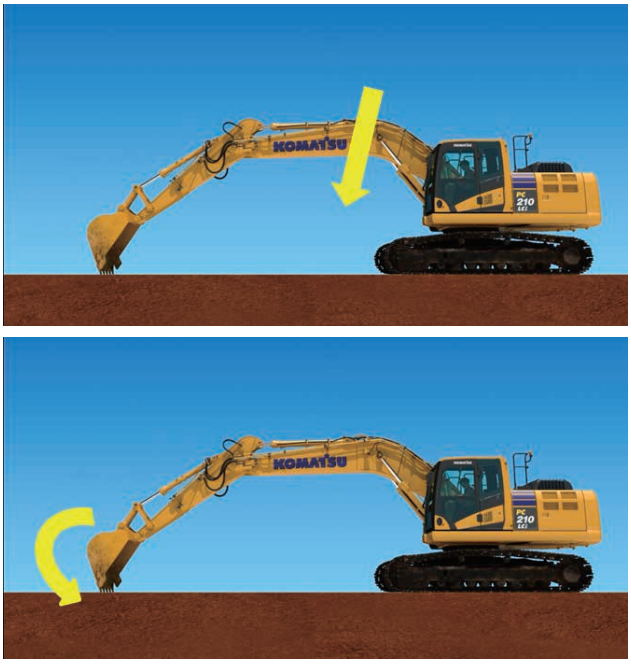
Ground leveling assistance

The boom lifts automatically so that the bucket moves along the construction surface when the arm is manipulated. This feature allows the operator to carry out rough excavation work without concern for the construction surface and do the final finishing excavation work merely as a arm lever operation. A boom lowering operation may be included to broaden the sphere of construction.

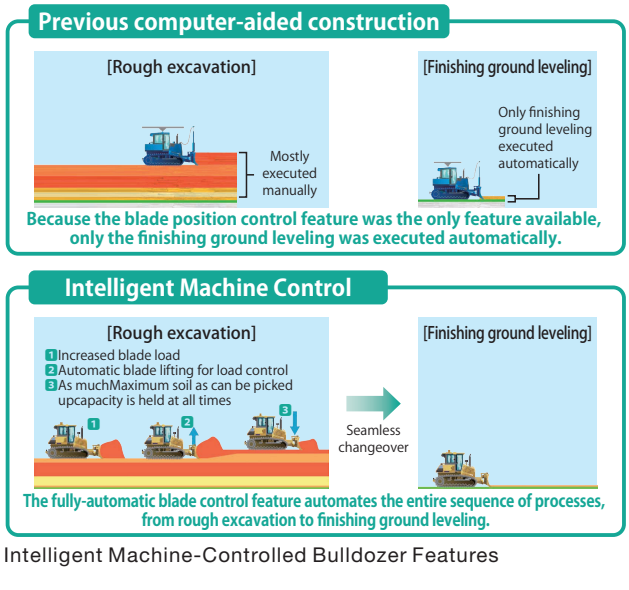


Automatic stop control

When the blade edge of the bucket reaches the construction surface during boom or bucket operation, the operating equipment stops automatically to avoid harming the construction surface. The blade edge is also easy to position.



Intelligent Machine Control Hydraulic Excavator Feature



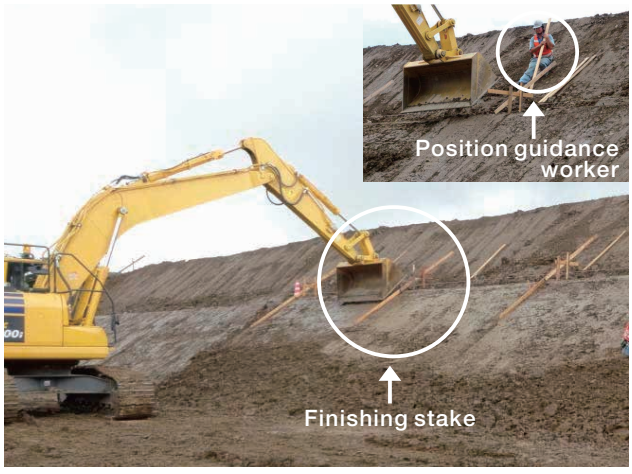
Intelligent Machine-Controlled Bulldozer Features

Effect on CO_2 Emissions Reduction by ICT Construction Equipment

For example, preliminary calculations based on the data collected from an in-house test execution using an ICT hydraulic excavator indicate that an approximately 30% saving in fuel consumption has been achieved in a banked slope trimming operation with a PC200i-10, thereby reducing CO_2 emissions.

Effects of CO_2 Emissions Reduction in Power Excavators by Computer-Aided Construction

*These are the results from a test execution carried out in-house and does not guarantee an equivalent effect for all executions.



Construction in a manual operation in which finishing stakes are checked visually (previous procedure)

Construction under semiautomatic control [Slope trimming] (ICT construction equipment)

Further, preliminary calculations based on the data collected from an in-house test execution using an ICT excavator indicate that an approximately 25% saving in fuel consumption has been achieved in a leveling-off operation with a D61PXi-23 – an equivalent of the cut in CO_2 emissions available with an ICT hydraulic excavator.

Effects of CO_2 Emissions Reduction in Bulldozers by Computer-Aided Construction

*These are the results from a test execution carried out in-house and does not guarantee an equivalent effect for all executions.

Construction in a manual operation in which finishing stakes are checked visually (previous procedure)

Construction under fully-automatic control (ICT construction equipment)

Evolving into Smart Construction

On January 20, 2015, Komatsu unveiled its Smart Construction initiative in Japan.

To encourage wider usage of computer-aided construction by its customers, Komatsu proposes to make the work flow on construction sites more efficient by measuring the current terrain using drones and 3D scanners to prepare 3D drawings in the preconstruction processes in order to "visualize" the work of planned construction processes and the progress of planned activities with computer-aided construction equipment. Komatsu expects that simplifying construction processes and making the on-site workflow more efficient can result in the secondary benefits of CO_2 emissions reduction.

Furthermore, the entire sequences of construction processes can be compiled on electronic databases, making the administrative work paperless to further reduce the environmental load.

In its commitment to computer-aided construction, Komatsu is driving the global deployment of Smart Construction, including North America, Europe and Japan, not only to compile information about construction equipment used in construction processes on to databases, but to also reduce the environmental load across all construction works.

Pursuing Environmental Management

Komatsu promotes environmentally-friendly activities throughout the entire Group to realize its vision of "What Komatsu Can Do and What It Must Do" for the environment and sustainable development.

Komatsu's Relationship with the Environment

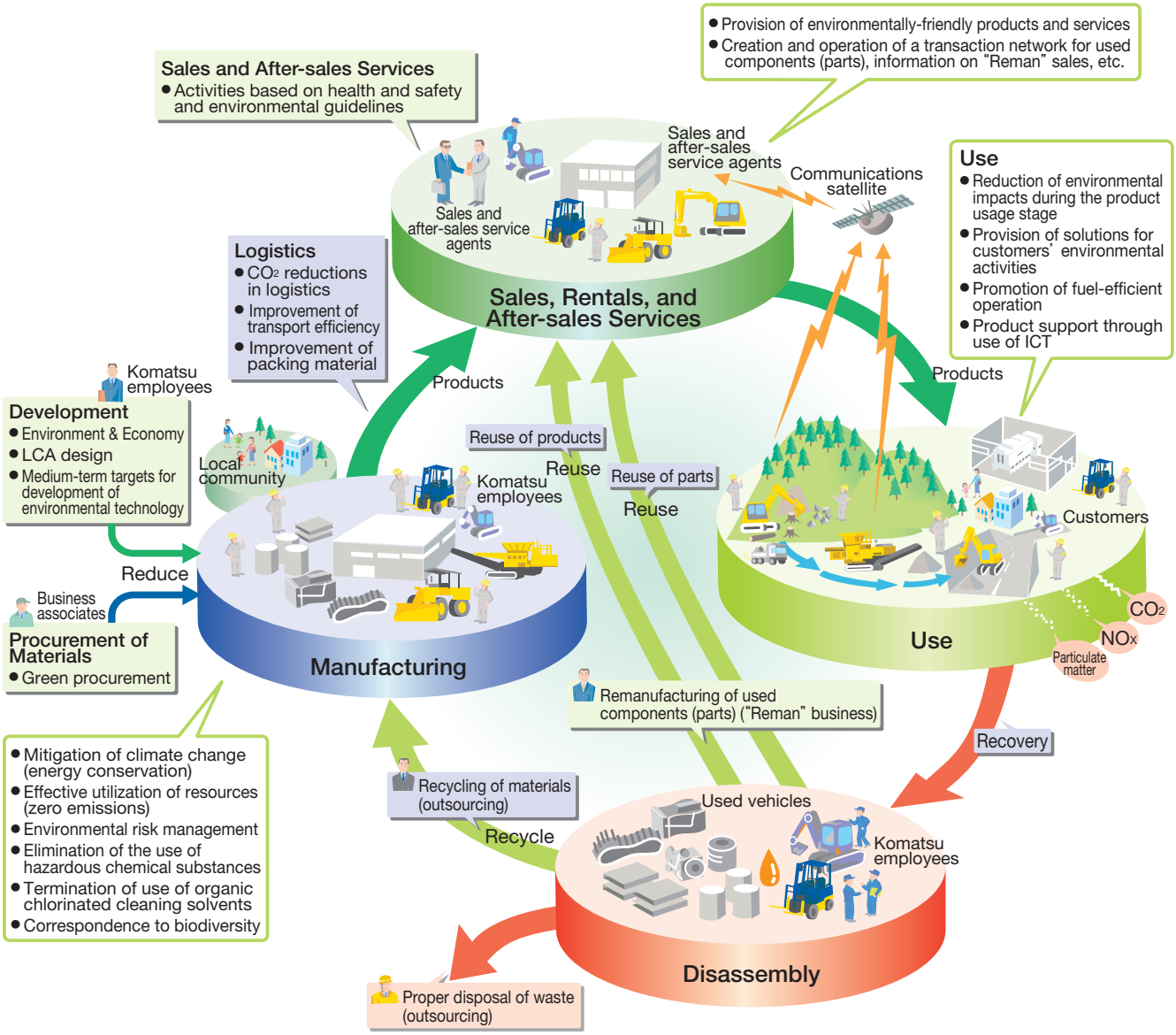
In recognition of the fact that our business activities affect the environment on a regional and global level, we, at Komatsu, have placed the focus on the following four key areas:

1) Climate Change
2) Establishment of a Sound Material-Cycle Society
3) Conservation of Air, Water and Other Natural Resources as well as Management of Chemical Substances
4) Biodiversity

In line with the Komatsu Earth Environment Charter revised in 2010, the Komatsu Group embarks on global initiatives across business areas guided by the fundamental principles of

(1) Contributions to Realization of Sustainable Society,
(2) Simultaneous Realization of Environmental and Economic Performance, and
(3) Observance of Corporate Social Responsibility.

Relationship of the Komatsu Group's Business Activities with the Environment



Pursuing Environmental Management

Komatsu Earth Environment Charter (June 2010 revision)

⟨Corporate Principles⟩

1. Contributions to Realization of Sustainable Society

Mankind must not only promote the further growth of a rich and comfortable society but also pass down this indispensable environment of our planet earth to future generations in a sound and healthy condition.

We, at the Komatsu Group, define environmental conservation efforts as one of the highest priority management tasks, and endeavor to contribute to the sustainable growth of society by integrating advanced technologies into environmental conservation efforts in all our business activities. This is represented by our hybrid construction equipment which features a substantial reduction of CO_2 emissions while in operation and by our superior manufacturing.

2. Simultaneous Realization of Environmental and Economic Performance

We are committed to improving both environmental performance and economic efficiency, as a group of companies working toward superior manufacturing for customer satisfaction. To this end, we constantly take up the challenge of advancing technologies to develop creative products that improve both environmental performance throughout the product's life cycle and the product's economic performance at the same time.

3. Observance of Corporate Social Responsibility

Each company of the Komatsu Group promotes environmental conservation by not only complying with the applicable laws and regulations of the concerned host community, region and country but also by establishing its voluntary standards which consider global and local environmental concerns. Each company of the Group also strives to fulfill its corporate social responsibility by actively participating in local environmental conservation programs and thereby promoting close-knit communication with local communities, while striving to become a company trusted by all Komatsu stakeholders.

⟨Guidelines for Corporate Activity⟩

1. Basic Stances on Earth Environmental Problems

We, at the Komatsu Group, work for sustainable society and earth environment through our global business operations by addressing the following four environmental problems with the stances discussed below.

1) Climate Change

We will reduce the use of energy and emissions of greenhouse gas in all phases of our business activities ranging from research and development, procurement, production and logistics to sales and service as well as in the total life cycle of our products and services.

2) Establishment of a Sound Material-Cycle Society

Through our business processes, we work to minimize the use of natural resources, such as materials and water, promote their re-use or recycle them as much as possible, and expand Zero Emissions from our manufacturing activities around the world. At the same time we ensure the thorough management of waste materials in all our business domains, including our suppliers and distributors. We also continuously work to increase the recyclability rate of products at the time of disposal.

3) Conservation of Air, Water and Other Environments as well as Management of Chemical Substances

We comply with not only local laws and regulations but also with our established standards concerning the conservation of water quality, prevention of air pollution, noise and vibrations.

As much as possible, we also ensure the thorough management of chemical substances for use in our business activities, while continuously reducing the use of potentially harmful chemical substances or replacing them with alternative substances for discontinuation of their use.

4) Biodiversity

We recognize biodiversity as one of the important issues concerning the earth environment, evaluate, understand and analyze impact on it in all our business domains, and work on our tasks according to the criteria of the highest impact and/or the most effective actions.

2. Framework of Global, Group-wide Environmental Management System

The Komatsu Head Office, as well as the manufacturing facilities and main companies of the Komatsu Group, already with ISO certifications, will work to maintain and improve their environmental management system, while other manufacturing facilities and suppliers will also work to establish their environmental management systems and reduce their environmental impact.

The Komatsu Environmental Committee develops environmental action plans and common guidelines for the Komatsu Group. Based on these Group-wide plans and guidelines, each division or company sets up its own mid- to long-term targets, develops and implements specific action plans, reviews them regularly and works to continuously improve them.

3. Environmental Education and Communication

We believe that it is important to enhance the environmental awareness of each and every employee and thereby actively promote environmental awareness and education programs for all employees.

We will gather environment-related information concerning not only our manufacturing facilities but also other related entities, such as major affiliated companies and suppliers, and strive to disclose such information, thereby facilitating proactive communication with all our stakeholders, such as customers, employees, local communities and suppliers and further expanding the content of environmental communication.

Organizational Chart of the Environmental Management Structure

Board of Directors

The highest executive body to consider top-priority matters and make decisions on management policies of the Komatsu Group.

President and CEO

Strategy Review Committee

The executive body to study and review basic policies, plans, and strategies, hold deliberations involved in top-priority corporate affairs, and present these to the Board of Directors. This committee consists of the standing executive directors.

Earth Environment Committee

This committee has ultimate authority for approving Komatsu's environmental conservation measures. Its meetings are held biannually. Its mission includes formulating specific environmental action plans based on the Guidelines for Corporate Activity of the Komatsu Earth Environment Charter and determining Komatsu Group's overall direction in environmental conservation. Chaired by an executive officer in charge of environmental management, it consists of executive officers responsible for individual divisions.

Global Safety and Environmental Affairs Meeting

Chaired by an executive officer in charge of environmental management, this meeting is attended by officers responsible for safety and environmental management in Komatsu manufacturing facilities both in and outside Japan. Meeting every two years as a rule, it provides a platform to implement policies and measures formulated by the Earth Environment Committee and to exchange information related to environmental conservation worldwide.

: Person in charge of environmental management

- Corporate level control division (Environmental Affairs Department)
  - Research and development divisions
  - Manufacturing divisions
  - Sales and after-sales services divisions
  - Business units
  - Affiliated companies
  - Manufacturing facilities outside Japan

- Research
  - Environmental Committee
    - Environment Management Groups
- Development
  - Development Meeting
    - Environment Technology Working Groups
- Manufacturing
  - Manufacturing Technology Meeting
    - Environment Management Personnel Liaison Council
    - Utility Sectional Committee
  - Logistics Planning Meeting
    - Logistics Manager Liaison Council
  - Manufacturing Facility Environment Management Committee
    - Environment Promotion Team
- Procurement Division
  - Procurement Meeting
    - Procurement Control Manager Meeting
- Sales and after-sales service
  - Komatsu Japanese Dealer Meeting
    - Liaison Council (After-sales service division in Japan)
    - Liaison Council (Rental division in Japan)
- Affiliated Companies' Environmental Management Conference
- Environmental Management Conference for Manufacturing Facilities outside Japan

Acquiring ISO14001

Komatsu has implemented a Group-wide initiative to acquire ISO14001 certification, an international standard for environmental management systems. The objective is to enhance management quality by strengthening systematic steps towards environmental conservation.

Since 1997, several manufacturing facilities both inside Japan and abroad received certification. In FY2005, the four plants belonging to Komatsu Ltd. (the parent company), the Awazu, Osaka, Mooka, and Oyama Plants, acquired integrated certification. As the second step, in FY2007 Komatsu added its major affiliates in Japan and yet-to-be-certified non-manufacturing facilities – notably the Head Office – to the above four plants, with integrated certification attained by the Group in Japan in May 2008.

Upon completing the March 2012 recertification, the KOMATSU Way Global Institute and Komatsu NTC Ltd. were included in the integrated certification. The Group conducted the recertification qualification again in March 2015, and will continue to work on improving the quality of management in Japan.

Komatsu aims for 100% of overseas production facilities to acquire certification by FY2015, and in FY2013 "Komatsu (Shandong) Construction Machinery Corp.", "Komatsu Manufacturing Rus. LLC", and "Hensley Lingfeng Co., Ltd (China)" acquired certification, and in FY2014 "Cabtec (Thailand)" acquired certification as well.


Komatsu Ltd.

ISO 14001:2004

ISO14001 Integrated Certification

Pursuing Environmental Management

Environmental Action Plan and Results for FY2014

To promote the Komatsu Earth Environment Charter, the company formulates environmental action plans (implementation policies) for each field, establishes action targets for each fiscal year, and steadily advances its policies, while following up on their implementation status.

The detailed Environmental Action Plan and Results for each field are as follows.

Environmental Management

Implementation policies	Objectives for FY2014	Results for FY2014	Medium- and long-term objectives
1.Strengthen environmental management systems	●Recieve a certificate renewal audit and continue the certification. ●Certification of overseas production sites (1 company)	●Recieved a certificate renewal audit and continued the certification ●One company (CABTEC THAI Co.,Ltd.) obtained certification	●Acquisition of integrated certification by the Komatsu Group Manufacturing Facilities in Japan ●Certification acquired for overseas subsidiaries (Production)
2.Environmental education and training: Implement the education plan	Draw up and promote the education plan	●Held 14 courses with over 6,600 participants	Continue to organize courses and expand them to overseas locations
3.Conduct environmental audits for overseas subsidiaries	Environmental Inspection of American States affiliated companies	●Implemented environmental survey at KAC(3 plants) and KDB	Continuation of activity
4.Environmental communication: Publish a CSR & Environmental report	Formulate a communication plan and publish the report	●Published the Japanese version (Web) in July 2014 and the English version (Web) in July 2014	Enhance the quality of the content; release report earlier than in previous years

Research and Development

Implementation policies	Objectives for FY2014	Results for FY2014	Medium- and long-term objectives
1.Reduce the environmental impact of construction equipment Develop low-emission construction equipment (compliant to emission standards)	Develop vehicles compliant with Tier4 emission standards	●Developed vehicles equipped with engines compliant with Tier4 final emission standards (PC210LC-11, D85EX/PX-18, HM300-5, etc.)	Development of Tier4 final (STAGE IV) emission standard compliant vehicle in Japan, US, and EU by 2014
Reduce CO_2 emissions from construction equipment (improve fuel efficiency of products)	Reduction in emissions with Tier4 emission standard (Hydraulic excavators: 10-13% reduction compared to Tier3)	●Achieved 14% to 15% reduction in emissions with vehicles complaint to Tier4 final emission standards (PC210LC-11, PC360LC-11)	Decrease emissions by 10% from Tier4 standard compliant vehicles (hydraulic excavators) by FY2015
	Reduction in emissions with hybrid vehicle (Hydraulic excavators: 25-35% reduction in emissions compared to current Tier3-normal vehicles)	●Development of Tier4 final compliant hydraulic excavator (under development)	Decrease emissions by 35% from Tier4 standard compliant hybrid vehicles (hydraulic excavators) by FY2015
Reduce CO_2 Emissions from construction equipment (Biodiesel Fuel (BDF) measures: Carbon Offset)	B5/B7 mixed light oil measures	●B20 mixed light oil measure (be in progress)	Use of B20, light oil blended with BDF (standard construction equipment)
Improving recyclability rate of construction equipment	Achieve 99% for recyclability rate equipment compliant with the next developed vehicles	●Achieved 99% recyclability with Tier4 compliant vehicles	Achieve recyclability rate of 99.5± 0.5%
Strictly control and reduce substances of environmental concern in construction equipment	Maintain reduction of hazardous substances at 75% reduction compared to 1998 levels	●Maintained 80% reduction of hazardous substances with newly developed vehicles as compared to 1998 levels ●Additional reduction of lead usage in crawler type construction equipment (active)	Reduce lead usage by 90% as compared to 1998 levels by 2017
	Reduce the use of lead in vehicles compliant with Tier4 emission standards	●Policy made to ban lead solder usage in the vehicles to be developed for the subsequent periods in principle (except those on-board) from 2015	—
	Utilize a separate hazardous substances control system for each product type (to comply with REACH regulations)	●Registered additional new 10 substances of SVHC under the EU REACH regulation, and controlled the usage of those SVHC substances. Conducted surveys of substances for EU destination models and EU mass production and development models (Implementation of component-specific substance surveys) ●The control system is being deployed in other overseas countries (other than EU)	Manage substances of each component pursuant with new data
2.Reduce the environmental impact of industrial machinery Market high-performance AC servo presses	Expand business affiliations for AC servo presses	●Promoted the development of H1F200 (pressure 200 tons) and H1F150 (pressure 150 tons)	Expand AC servo press sales ratio
Market high-efficiency wire saws for solar cells	Expand business affiliations for specialized machinery for diamond wire	●Participated in activities to slim down silicon materials through the national project "Next Generation Crystalline Silicon PV Consortium"	Slimming down silicon material (finer wires) and expand applications
Market compact machining center	Expand business affiliations for compact machining center	●Promoted development of next generation machine tools for energy- and space-saving	Expand business affiliations Develop production support technology for the reduction of LCC.
Market the energy-saving fiber laser cutting machine	Development of the fiber laser cutting machine	●Mounted Komatsu's own oscillator onto the fiber laser three dimentional laser beam cutting machine(TLH)	Expand business affiliations and applications
Market thermoelectric power generation that uses waste heat from plants	Development of thermoelectric generation system	●Promoting the practicalization of thermoelectric generators	Commercialization
3.Promote reuse and recycling Expand and promote the remanufacturing ("Reman") business and improve recyclability rate	Promote and expand the Reman business	●Innovation of new recycling-related technologies (expand to hydraulic pump parts) ●Expanded the menu of "Reman" products(newly listing engine sub-components and long block engines) ●Newly established 12th Reman Center and expanded "Reman" products supply areas	●Promote reuse and recycling through further improvements in recycling-related technologies for parts ●Stimulate reuse and recycling worldwide by expanding Reman bases to accommodate demands

Manufacturing

Implementation policies	Objectives for FY2014	Results for FY2014	Medium- and long-term objectives
1.Mitigation of climate change (energy conservation) Make a 54% improvement by FY2015 in the amount of CO_2 emissions per unit of manufacturing value compared to the FY2000 level at the Komatsu Group manufacturing facilities in Japan	An improvement of 42% compared to FY2000	●Improved 36.9% from the FY2000 level (6.2 point reduction compared to the previous year)	The former reduction goal (a 43% reduction for FY2020 from the FY1990 level) is under review now
Make a 41% improvement by FY2015 in the amount of CO_2 emissions per unit of manufacturing value compared to the FY2005 level at the Komatsu Group manufacturing facilities outside Japan	An improvement of 41% in FY2015 compared to FY2005	●Improved 33% compared to FY2005 (0.3 point increase compared to the previous year)	Achieve a 44% reduction by FY2020 compared to the FY2005 levels
2.Effective utilization of resources Maintain or make further progress in attaining 99.5% or greater recyclability rate by FY2015 (improvement towards zero emissions) (Komatsu Group manufacturing facilities in Japan)	Attain a recycling rate of 99.4% or greater	●Attained a recycling rate of 99.6% across the Komatsu Group (Japan)	By FY2015, Japan: Attain a recycling rate of 99.5% or greater
Maintain or make further progress in attaining 95% or greater recyclability rate by FY2015 (Komatsu Group manufacturing facilities in Overseas)	Attain a recycling rate of 95% or greater by FY2015	●Attained a recycling rate of 91.4% across the Komatsu Group (overseas)	By FY2015, Overseas: Attain a recycling rate of 95% or greater
Achieve a reduction of more than 20% by FY2015 in the amount of waste generated per unit of manufacturing value compared to the FY2005 level (Komatsu Group manufacturing facilities in Japan)	Improve 1% over the previous fiscal year	●Achieved a 42.7% reduction in the amount of waste generated per unit of manufacturing value compared to the FY2005 level (improvement of 9.5 point compared to the previous year)	Achieve a 20% reduction by FY2015 compared to the FY2005 level
Achieve a reduction of more than 50% by FY2015 in the amount of water used per unit of manufacturing value compared to FY2005 (Komatsu Group manufacturing facilities in Japan)	Improve 3% over the previous fiscal year	●Achieved a 63.3% reduction in the amount of water used per unit of manufacturing value compared to the FY2005 level (improvement of 10.4 point compared to the previous year)	Achieve a 50% reduction in FY2015 from the FY2005 level

Implementation policies	Objectives for FY2014	Results for FY2014	Medium- and long-term objectives
3.Environmental risk management Implement voluntary reductions in the release of chemical substances including volatile organic compounds ("VOCs"), which constitute the majority of chemical substances released	Establish a control system for chemical substances and reduce the amount of released chemical substances	●Accomplished a 49.5% reduction in the amount of VOCs released per unit of manufacturing value over the FY2005 level	Achieve a 50% reduction compared to the FY2005 level
Undertake soil and groundwater remediation (Komatsu Group manufacturing facilities in Japan)	Continue the cleanup	●In progress	Complete the cleanup work
Sequentially address each underground tank that has been in operation for 20 years or more (Komatsu Group manufacturing facilities in Japan)	No applicable underground tanks	●No applicable underground tanks	Sequentially address each underground tank that has been in operation for 20 years or more
4.Other Improve greenery rate by 20% or greater by FY2015 across the Komatsu Group. (Komatsu Group manufacturing facilities)	Greenery Rate 19.5% or greater	●Komatsu Group achieved a total rate of 20.1%	Rate of 20% or greater by FY2015

Procurement and Logistics

Implementation policies	Objectives for FY2014	Results for FY2014	Medium- and long-term objectives
1. Green procurement Promote improvements at suppliers through the establishment of environmental management systems ("EMSs") and by specifying matters that require environmental consideration	Provide guidance and support to member companies of the Komatsu "Midori-kai" for acquiring integrated certification of their environmental management systems	●All subject companies acquired certification for a total of 164 certified companies, and are promoting environmental management activities	Within three years, have newly admitted Komatsu "Midori-kai" admission company masters attestation of environmental management systems (ISO 14001, Eco-stage, etc.)
2. Environmental conservation in logistics Reduce CO_2 emissions per unit of cargo weight generated through shipping of products and components (Komatsu manufacturing facilities in Japan) (in the scope of revised Law concerning the Rational Use of Energy of Japan)	Improve CO_2 emission per cargo weight (kg-CO_2/ton) by 24% compared to FY2006 levels	●Achieved 25.6% improvement compared to FY2006. CO_2 emissions decreased by 5.8% , 20.7⇒19.5(kg-CO_2/ton) compared to the previous fiscal year. ●Increased the domestic vessel usage rate of Tohoku-bound coastal shipping, one prioritized area of improvement since FY2011, and also the usage rate of railway transport, another since FY2014 (distances of 500 km or longer subjected to a modal shift), have resulted in transportation at the lower rate of energy consumption and cuts in long-distance cargo trucking, still another area of improvement.	Improve the basic unit of CO_2 emissions generated through shipping of products and components by 27% compared to FY2006 by FY2015 (14 Komatsu logistics facilities in Japan)
Shift to means of shipping with low environmental impact	Promote modal shifts in shipping from trucks to inland ferries or rail	●The total modal shift rate in FY2014 was 29.1% (+12.8% compared to FY2006: +5.8% by railway, +7.0% by domestic vessels) ●By proactively increasing the usage of domestic vessels in place of long-distance trucking to the north-east, which increased due to the Great Eastern Japan Earthquake Disaster after FY 2011. A higher rate of railway transport has been pursued as a prioritized area of improvement since FY2013. ●The rate of railway transport in FY2014 improved 1.7% to reach 6.1% (modal shift rate: 28.7% ⇒ 29.1% (+0.4%), modal shift rate for distances of 500 km or longer needing improvement: 47.6% ⇒ 49.2% (+1.6%)).	Continue to promote modal shift. Curb the increase in CO_2 emissions through the modal shift, switching long-distance trucking to domestic vessel shipment, in the transportation of products from Awazu and Osaka to north-east Japan. Improve the transportation of products from Tochigi plant to Shikoku and Kyushu as well. Expand rail usage for Oyama, Koriyama, and Awazu plant components: engines, hydraulic equipment, transmission, etc.
	Shift to battery powered forklifts	●Forklifts used for in-plant logistic purposes have been shifted to hybrid and battery-powered models to lessen their environmental impact. In FY2014, the number of hybrid and battery-powered forklifts accounts for 45.9% of all forklifts, up 26.5% from its FY2006 level. (Ratio of the number of battery-powered forklifts: 46.4% in FY2013 ⇒ 45.9% in FY2014, down 0.5%)	Promote reduction in environmental strain by increasing the ratio of battery powered and particularly hybrid forklifts.
Strive to eliminate the procurement of new wrapping materials through promotion of returnable packaging containers.	Promote the returnability of packaging containers	●Expanding scope of returnable general-purpose wooden packaging container usage, which had been pursued on a priority basis, has helped cut wooden packaging requirements. Ratio of general-purpose packaging container returnability for CKD parts: 49.0% ⇒ 60.2% (+11.2%) Ratio of general-purpose packaging container returnability for spares: 53.7% ⇒ 57.7% (+4.0%)	Proceed with further improvement efforts to achieve "zero" procurement of new packaging materials as a prioritized area of improvement. Continue improvement in the returnability ratio of containers designated for CKD parts. Further improve the returnable rate of general-purpose containers for CKD/spare parts.
Measures for protecting biodiversity and reduction in wood used in packaging containers (Avoid tree trimming and the risks of immigration and emigration of nonnative species in wood)	Reduction in the usage of wooden/cardboard packaging containers Reduce the basic unit of usage per cargo weight (kg-CO_2/ton) by 8% compared to FY2010	●Efforts continued into FY2014 to cut packaging material requirements, mainly wooden materials, with a view to protect biodiversity. Amount of wood/cardboard used in FY2014: 5,404 tons Achieved an reduction by 30.7% compared to FY2010 (Approaches to cutting wooden packaging material: Change in packaging material, improvement of higher returnability ratio, cut in packaging material requirements through VE)	10% improvement in ratio of wood and cardboard packaging material used per shipment weight by FY2015 compared to the FY2010 level.
Promote reduction in shipping distances and improvements in shipping efficiency	Increase the size of shipped units to large lots	●The continued improvement through the use of vans in CKD plants enhanced improvement from 98.4% to 99.3% (+0.9%), while upsized transportation units resulting from an expanding scope of containerized transportation have been kept at a predefined maintenance and management level since FY2013. ●The usage of vans at supply component plants, which we have been focused on improving since FY2012, increased from 99.0% to 99.3% (+0.3%) to reach a predefined maintenance and management level since FY2014.	Prioritized improvement activities come to completion as upsized transportation units resulting from an expanding scope of containerized transportation have reached a predefined management maintenance and management level.
	Continue improving to reduce the distance per shipment by utilizing nearby ports	**<Suppression Measures for Increased Transport Distance and the Worsening CO_2 Emission Basic Unit Due to Changes in Domestic Transport Configuration>** ●The configuration of domestic transport destinations greatly changed since the Great East Japan Earthquake in 2011 due to increased long-distance transport to the Tohoku region as well as export CKD with shorter transport distances and a sharp decline in export models (mining) produced at the port factories of Kanazawa and Ibaraki. As a result, the average transport distance of truck trailers increased to 189km/case in FY2014 and the rate of increase was +19% compared to FY2010. This increase in average distance directly translated to a worsening of the CO_2 emissions basic unit. Viewing the promotion of modal shifts as a prioritized area of improvement for checking the worsening of the raw unit of CO_2 emissions, Komatsu embarked on a program to expand modal shifts in 2011, switching long-distance trucking to coastal shipping and railway transport in pursuit of transportation at a lower rate of energy consumption and cuts in long-distance trucking. The average trucking distance, which had trended worse since 2011, narrowed 7% in FY2014 from the previous year, with the result of improved CO_2 emissions per unit of transportation. **<Improvements in Transport Distance Reduction by Utilizing Nearby Ports>** ●Kanazawa Port utilization improved by 1.3% from FY2013 to 46.1% against a mid-term target of 50%. ●Hitachinaka Port utilization is 97.4% against the mid-term goal of 95%, thereby maintaining the achievement of the mid-term plan.	Continue reducing transportation distance by utilizing near-by ports. A target usage rate has been achieved for Hitachinaka Port. It will be maintained and managed at 95% at least from now on. A FY2015 target usage rate (products) of 50% will be set for Kanazawa Port and will be approached through improvement efforts.
From 2011 ●Implement environmental conservation activities in global logistics (both national and international) ●Improve CO_2 emission per cargo weight of shipping products and parts. (10 major overseas plants)	The basic unit of CO_2 emissions per cargo weight (kg-CO_2/ton) has improved 6% from its FY2011 level.	●Implementation of monthly tracking of data for CO_2 produced by shipment in 10 major plants in the Americas (2 in US, 1 in Brazil), EU (1 in UK, 1 in Germany) China (3), and Asia (1 in Indonesia, 1 in Thailand). ●FY2014 status of the basic unit of CO_2 emissions per cargo weight The basic unit of CO_2 emissions per cargo weight advanced 0.1%, more or less sideways, from its FY2011 level but has improved by 3.0% from the previous year. 58.3 ⇒56.5 (kg-CO_2/ton) As a principal improvement item, the need for long-distance trucking in the U.S. has been cut as a result of cross-sourcing North America-bound products from the CMO (Chattanooga, America) plant (with 44% of the total volume of North America-bound products having been switched to imports from Osaka Plant in Japan and the BKC plant in Thailand). Changes in the shipping destinations, coupled with improvements implemented at the CMO, have cut the average land trucking distance in overseas plants by 6%, contributing to improve the basic unit of CO_2 emissions per cargo weight.	8% improvement in the ratio of CO_2 emission per shipment weight in the logistics of products and parts by FY2015 compared to FY2011 levels. (10 major overseas Komatsu Group Plants)

Sales and After-sales Services

Implementation policies	Objectives for FY2014	Results for FY2014	Medium- and long-term objectives
Encourage Komatsu Group sales agencies and rental companies in Japan to reduce their environmental impact	Enhance awareness of the environment through education and training based on the Group's environmental guidelines	●Carried out activities for improvement through guidance provided during onsite visits to total 52 sites ●Regularly issued the Safety and Environment Newsletter (24 editions published yearly)	Support environmental conservation activities by Komatsu Group sales agencies and rental companies in Japan based on the Group's environmental guidelines

Pursuing Environmental Management

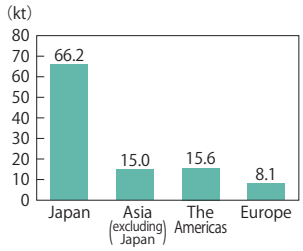
Relationship between Business Activities and the Environment

The Komatsu Group procures various parts and materials and, through the manufacturing process, utilizes the earth's resources, including raw materials, water, energy, and chemical substances, among others, to provide products to customers. Such business activities have the potential to impact the environment at each stage in the process.

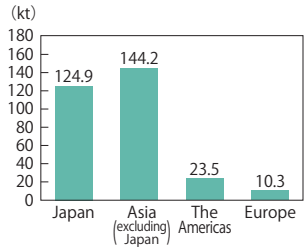
The Komatsu Group will continue to provide high value-added products and services while assessing the environmental impacts resulting from its business activities, formulating medium- and long-term objectives, and introducing measures to reduce such impacts.

CO_2 Emissions by Scope

Scope1: CO_2 emitted directly by manufacturing facilities
(by using generators, boilers, etc.)



Scope2: CO_2 emitted indirectly by manufacturing facilities
(by purchasing electricity, steam and hot water)



Environmental Impact Resulting from Business Activities of Komatsu Group Companies, including Facilities outside Japan (FY2014)

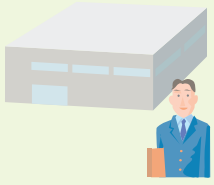
Input

Direct Materials	
Steel	951,000t
Indirect Materials	
Paints	1,144 t*1
Lubricants	12,908kℓ*1

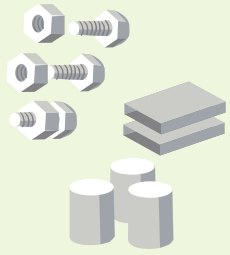
Energy	
Electricity	620GWh
Heavy oil A	7,000kℓ
Kerosene	3,000kℓ
Light oil	8,000kℓ
Natural gas	17million Nm^3
LPG	5kt
Gasoline	400kℓ
LNG	4,000Nm^3
Steam	11kt
Other	4MWh

Water Resources	
Groundwater	2.7million m^3
Industrial water	0.1million m^3
Supply water	0.9million m^3

Development
- Ecology & Economy
- LCA design
- Medium-term targets for development of environmental technology



Procurement of Materials
- Green procurement



Manufacturing (32 Komatsu Group Manufacturing Facilities in and outside Japan)
- Mitigation of climate change (energy conservation)
- Effective utilization of resources (zero emissions)
- Environmental risk management
- Elimination of hazardous chemical substances*1
- Termination of use of organic chlorinated cleaning solvents*2

Environmental Risks (Air, soil, and groundwater pollution)	
Measures for underground oil tanks	0units*2
Storage for PCB transformers	93units*2
Groundwater observation wells	114wells*2
Company on-site landfills	Closed

Product

Product weight (construction, mining and Industrial equipment)
1,032kt

Number of products (construction, mining and Industrial equipment)
61,678vehicles

Output

Waste	
Total amount generated	83kt
Substances under the Pollutant Release and Transfer Register (PRTR) Law	79t*2
(Waste furnaces	All removed)

Waste Recycling	
Recycling amount	77kt

Use in other industrial sectors

Hazardous waste manifests

Waste Disposal	
Waste materials disposed by subcontractor	6t
(Company on-site disposal of waste materials	0t)

Atmospheric Discharges	
CO_2	401kt-CO_2*5
SO_x	12t
NO_x	133t*2
Substances under the PRTR Law	470t*2

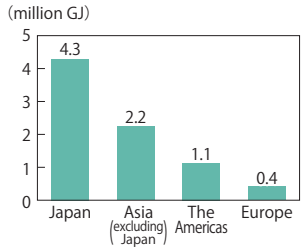
Noise and vibration

Water-based Discharges	
Wastewater	3.0million m^3*2
BOD emissions	7t*2
COD emissions	10t*2
Substances under the PRTR Law (public water areas)	0.0t*2
Substances under the PRTR Law (sewerage)	0.0t*2

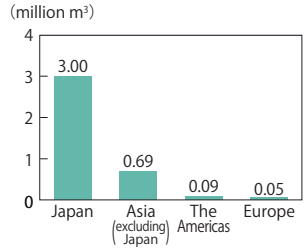
CO_2 emissions: Calculated by multiplying the electric power, heavy oil, etc. consumed (see Energy section of Input column) by the CO_2 emission coefficient (according to the Greenhouse Gas Emissions Calculation - Reporting Manual of the Ministry of the Environment based on the Act on Promotion of Global Warming Countermeasures)
SOx emissions: Calculated by multiplying the "density" and the "S content by percentage" (based on element tables of suppliers) by the amounts of heavy oil, kerosene, light oil, and coke used.
NOx emissions: Calculated by multiplying the "nitrogen oxide emissions units" (obtained at each Komatsu facility) by the amounts of heavy oil, kerosene, light oil, natural gas, and LPG used.
Emissions and transfer of substances covered by the PRTR Law: Calculated by the "content ratio of specific chemical substances" contained in indirect materials multiplied by the "discharge or transfer rate." This calculation is based on the PRTR Law, which was designed to mandate the disclosure of the amount of specific chemical substances released into the environment to promote the management of such substances.

Environmental Impact Indicators by Region

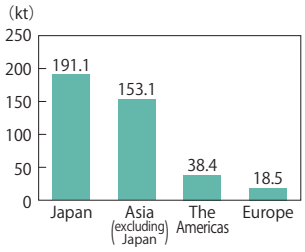
Energy



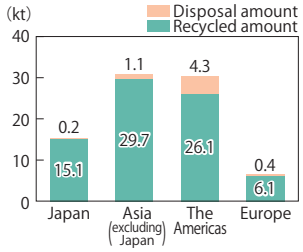
Water Resources



CO_2



Waste



Note:
Komatsu has begun to include parts of overseas data to the amount energy used and emissions by logistics.

Energy
Light oil 27,738kℓ

Packaging
Steel 1,553t*3
Resins 58t*3
Wood, cardboard 5,404t*3

Energy
Electricity 17.2GWh*4
Kerosene 600kℓ*4
etc.

Indirect Materials, Oils

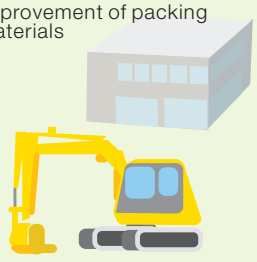
Energy
Fuel

Indirect Materials, Oils

Energy
Fuel, electricity

Logistics (25 Komatsu Group Logistics Facilities in and outside Japan)

- CO_2 reductions in logistics
- Improvement of transport efficiency
- Improvement of packing materials



Sales and After-sales Services

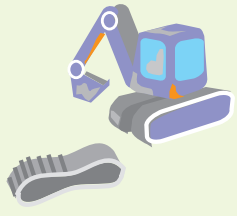
- Provision of environmentally-friendly products and services
- Creation and operation of atransaction network for usedcomponents (parts)

Use

- Reduction of environmental impact during the product usage stage
- Provision of solutions for customers' environmental activities
- Promotion of fuel-efficient operation

Recovery and Disassembly

- Promotion of "Reman," in which used components (parts) are recovered, remanufactured, and supplied back to the market



Atmospheric Discharges
CO_2 79.7kt-CO_2

Returnable pallets

Atmospheric Discharges
CO_2 8.9kt-CO_2*4

Waste oil products

Recycling conducted at oil manufacturers

Atmospheric Discharges
CO_2 19,597kt-CO_2
NO_x, diesel particulate matter

Noise and vibration

Reuse of products
Reuse of parts

Recycling of materials (outsourcing)

Use in other industrial sectors

Atmospheric Discharges
CO_2

Hazardous waste manifests

Waste disposal

Scope of energy and CO_2 data of logistics

- Komatsu (parent company) facilities, specifically the following fourteen plants
  The Awazu Plant, the Osaka Plant, the Rokko Plant, the Ibaraki Plant, the Tochigi Plant, the Kanazawa Plant, the Shonan Plant, the Oyama Plant, the Koriyma Plant, and Komatsu Logistics Corp (Parts Logistics Division) (The Kanto Parts Distribution Center, the Kansai Parts Distribution Center, the Awazu Parts Distribution Center, the Hokkaido Parts Distribution Center, the Kyusyu Parts Distribution Center).
- Komatsu Group manufacturing facilities in Japan, specifically the above fourteen plants and the following one business unit
  Komatsu Castex Ltd.
- Komatsu Group manufacturing facilities outside Japan, specifically the following ten plants
  Komatsu America Corp.,[Chattanooga Manufacturing Operation], [Peoria Manufacturing Operation], Komatsu do Brasil Ltda., Komatsu UK Ltd., Komatsu Mining Germany GmbH, Komatsu Shantui Construction Machinery Co., Ltd., Komatsu (Changzhou) Construction Machinery Corporation, Komatsu (Changzhou) Foundry Corp., Komatsu (Shandong) Construction Machinery Corp, PT Komatsu Indonesia Tbk, Bangkok Komatsu Co., Ltd..

Coverage of Data
*1: 8 Komatsu manufacturing facilities in Japan
*2: 12 Komatsu Group manufacturing facilities in Japan
*3: Logistics of business sites in Japan However, this excludes data from the Awazu Distribution Center, Hokkaido Parts Distribution Center, and Kyushu Parts Distribution Center
*4: Sales agencies and rental companies in Japan (Komatsu Construction Equipment Sales and Service Japan Ltd., Komatsu Rental Ltd. and Komatsu Forklift Japan Ltd.) were added
*5: Including the usage of forklifts in the premises of a factory

Pursuing Environmental Management

Environmental Inspection

Environmental Inspection of American States affiliated companies

In accordance with the "Earth Environment Charter", environmental protection guidelines are being established for the purpose of improving the environmental protection level and reducing the environmental risks in developing countries.

In 2014, although not a developing country, the affiliated companies in the U.S. (KAC: 3 offices) and Brazil (KDB: 1 office) were visited for an inspection of their environmental facilities and to exchange views on environmental preservation. All four offices were conducting appropriate energy conservation activities, air and water quality measurements, and sorting of waste, and no major environmental risks were found.

Environmental inspections of overseas affiliated companies will continue to be carried out and the environmental efforts of the entire Komatsu Group will continue to be improved.

Environmental Inspection at KDB

Past Environment Inspections

2007	China
2008	—
2009	Thailand and Indonesia
2010	India
2011	Brazil
2012	Russia and Czech Republic
2013	United States
2014	United States and Brazil

Global Safety and Environmental Affairs Meeting

For 3 days, from November 5 through 7, 2014, the Sixth Global Safety and Environmental Affairs Meeting was held at the Komatsu Way Global Institute with the participation of 36 officers responsible for safety and environmental management from 12 different countries.

It was a productive meeting that included an explanation of Komatsu's policies regarding the environment, as well as time for officers from each manufacturing facility to divide into small discussion groups to exchange information.

It was decided that this meeting would be held annually starting in 2015, to further the sharing of cases in Japan, and facilitate the communication among participants, in order to promote environmental activities on a global scale.

Global Safety and Environmental Affairs Meeting (at the Komatsu Way Global Institute)

Setting New Mid- and Long-Term Objectives

In 2010, Komatsu set mid- and long-term objectives (2015, 2020) for the production department in regards to CO_2 reduction and started reduction activities. While mid- and long-term objectives for CO_2 reduction is being set for the world at the COP21 in 2015, Komatsu has reevaluated its mid- and long-term objectives thus far (up to 2020) and set new mid- and long-term objectives up to 2030 in order to contribute to the environmental change measures.

Among these objectives, the stringent objectives have been set increasingly in regard to CO_2 reduction particularly in domestic production, taking into consideration the electricity situation after the Great Eastern Japan Earthquake of 2011. Also, in addition to the targets set for CO_2 reduction, targets will also be determined in terms of production, for our domestic and overseas factories regarding the amounts of waste generated and water input, in order to promote the efficient use of resources.

In addition, mid- and long-term objectives up to 2030 were set for logistics CO_2 for the first time.

Further, in looking at CO_2 generated in the life cycle of construction equipment products, we found that CO_2 emissions during construction equipment use makes up appoximately 90% of total emissions. Therefore, fuel efficiency goals for construction equipment products were also set this time, up to 2030, in order to promote CO_2 reduction over the entire life cycle.

Area	Object	Application	Index	Base Year	New Objectives (Reduction Rate)	
					2020	2030
Production	CO_2	Japan	Improvement rate per unit of production	2000	57%	65%
		Overseas	Improvement rate per unit of production	2010	32%	40%
	Waste	Japan	Improvement rate per unit of production	2010	10%	20%
		Overseas	Improvement rate per unit of production	2010	10%	20%
	Water	Japan	Improvement rate per unit of production	2010	40%	50%
		Overseas	Improvement rate per unit of production	2010	10%	20%
Logistics	CO_2	Japan	Improvement rate per unit of logistics	2006	32%	39%
		Overseas	Improvement rate per unit of logistics	2011	13%	22%
Construction Machinery Products	CO_2	Hybrid Hydraulic Excavator	Fuel Consumption Reduction Rate	2007	40%	45%
		Normal Hydraulic Excavator (non-hybrid)			20%	25%

Amount of CO_2 Emissions by Scope 3

From actual data gathered by KOMTRAX, Komatsu has gained perspective on the amount of CO_2 emissions (Scope 3 Category 11) produced by our products in operation world-wide.

The calculation was performed as follows.

[Calculation of Emissions from Customer Use]

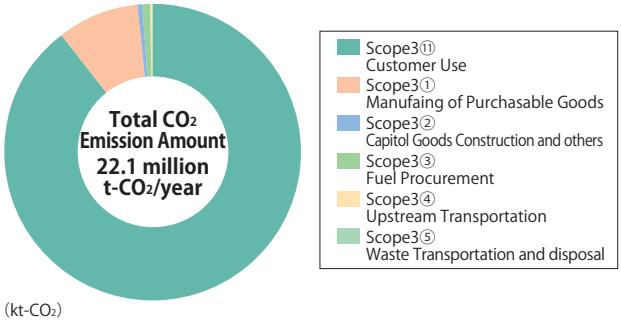
(1)Calculate the following by each model

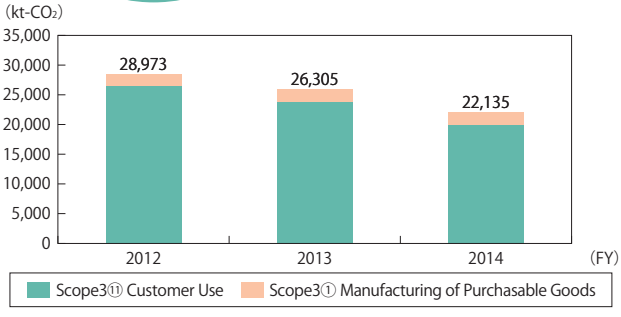
CO_2 emissions over the life of each model
= (2014 Production Volume) × (Fuel Consumption; L/kWh) × (Engine Output; kW) × (Engine Life; as product life; h) × (CO_2 Conversion Factor)

(2)Calculated for each model in (1) above, Total these values

*For models available to collect fuel consumption, KOMTRAX collected the actual values of fuel consumption and operating time from representative models of each size. We back calculated data from development for other models.

For others, including the 14 remaining categories, the general CO_2 emissions was calculated. The result is shown in the pie chart below.





*1: LCA is the environmental impact assessment method for individual products at each stage, from manufacture, transportation, sale, use, disposal, to reuse

*2: Scope1 is direct CO_2 emissions by operator (ex: private power generation)

*3: Scope2 is indirect CO_2 emissions by operator (ex: power purchase)

*4: Scope3 is CO_2 emissions by operator from supply chain (ex: emissions of product during operation, emissions from suppliers, transportation, business trips and commuting)

Amount of CO_2 Emissions Date by Scope 3

Category	Rate %	Summary Data t-CO_2
Scope3 (11) Customer Use	88.5	19,597
Scope3 (1) Manufaing of Purchasable Goods	9.6	2,124
Scope3 (2) Capitol Goods Construction and others	0.5	109
Scope3 (3) Fuel Procurement	0.8	183
Scope3 (4) Upstream Transportation	0.1	18
Scope3 (5) Waste Transportation and disposal	0.0	7
Scope3 (6) Business Tips	0.1	27
Scope3 (7) Commuting	0.1	20
Scope3 (8) Upstream Leased Assets Operation	—	—
Scope3 (9) Downstream Transportation	0.2	50
Scope3 (10) Processing Sold Products	—	—
Scope3 (12) Transportation for Product Disposal	—	—
Scope3 (13) Downstream Leased Assets Operation	—	—
Scope3 (14) Franchies Member Companies	—	—
Scope3 (15) Investment Management	—	—
Total CO_2 Emission Amount (t-CO_2/year)	100.0	22,135

- Although it is calculating in the total range of domestic and an overseas in calculation of each category, the category (4) and (5) is calculating only domestic data. Moreover, presumption of a category (3) goes into overseas data in part.

As evident from the results above, emissions during product use makes up approximately 90% of total emissions.

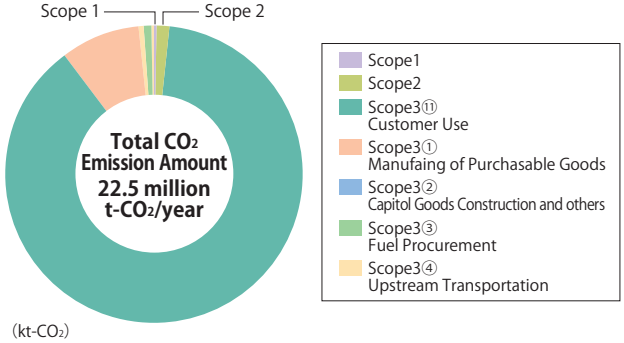
From this, we can see that fuel-efficient products have a significant effect on reducing CO_2 emissions.

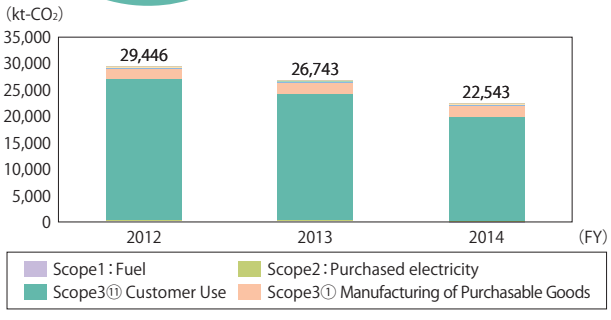
Komatsu is committed to developing hybrid construction machinery (improving fuel efficiency by 25%) and DANTOTSU products (over 10% improvement in fuel efficiency) and accelerating the pace of ICT-based computer-aided construction.

In addition, the result of the understanding in the LCA *1 (Life Cycle Assessment) is the pie chart below.

《Reference》

Pie Chart of Scope1, 2, 3





Mitigating Climate Change

Mitigating Climate Change through Products and Services

Tier4 Final Compliant Models Released

Komatsu has released one model after another that greatly reduce nitrogen oxide (NOx) and particulate matter (PM) emissions and meet the emissions controls of Japan (Emissions from Non-Road Special Motor Vehicles 2014 Standards), North America (EPA Tier4 Final), and Europe (EU StageIV).

Below are some examples.

Medium-Sized Hydraulic Excavator "PC490LC-11"*1

With "Quality and Reliability" as a foundation, Komatsu has pursued an ever higher level of environment, safety and ICT qualities, and released to the market PC490LC-11, which adds an outstanding fuel efficiency to this generation's environmental capabilities.

This model has a new type of engine that meets the North America EPA Exhaust Emissions Tier 4 Regulations (Tier4 Final) as well as Europe Exhaust Emissions Regulations Stage IV to further promote "clean & economy".

Fuel consumption has been decreased by a maximum of 11% compared to the previous model (PC490LC-10).

*1: For Europe and North America

PC490LC-11

Main Specifications

Item	Unit	PC490LC-11
Machine Mass	kg	48400
Net Engine Rated Output	kW/min^{-1}	268/1900

Large-Sized Bulldozer "D155AX/AXi-8"

With "Quality and Reliability" as a foundation, Komatsu has pursued environment, safety and ICT qualities to release to the market D155AX/AXi-8, which meets the next generation exhaust emissions regulations (Japan: 2014 Regulations, North America: Tier4 Final, Europe: StageIV) which have been in effect since 2014.

In particular, the D155AXi-8 is the first ICT construction equipment compliant to the next generation exhaust emission regulations of Japan, USA and Europe. By building in, for the first time, an automatic blade control function to a large-sized bulldozer which bears the large burden of heavy excavation work in land preparation, quarrying and mining, this large-sized bulldozer performs with great effectiveness, making possible an improvement in work efficiency (decreased the fuel consumption rate per amount of work) of approximately 8% compared to models without the automatic blade control.

D155AX/AXi-8

Main Specifications

Item	Unit	D155AX/AXi-8
Machine Mass	kg	40500
Net Engine Rated Output	kW/min^{-1}	264/1900

Dump Truck "HM400-5"*1

The HM400-5, by incorporating the Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR), significantly reduced the emission of nitrogen oxide (NOx) and particulate matter (PM) to meet the North America EPA Exhaust Emission Tier4 Final Regulations (Tier4 Final) and Europe Exhaust Emission Regulations StageIV.

For the HM400-5 equipped with the SCR, an AdBlue®*2 becomes necessary. However, by keeping the total cost of light oil + AdBlue® equal to the conventional model (HM400-3), a low fuel consumption rate has been achieved (fuel efficiency improved by 2.0%).

In addition, the fuel consumption waste that occurs during times such as waiting for loading has been eliminated by the use of an auto-idle-stop. Further decrease in fuel consumption will become possible.

*1: For Europe and North America

*2: AdBlue® is a registered trade mark of Verband der Automobilindustrie e.V.(VDA)

HM400-5

Main Specifications

Item	Unit	HM400-5 (Overseas General Specification)
Machine Mass	kg	35000
Net Engine Rated Output	kW/min^{-1}	348/2000

Market Introduction of Newly Developed Forklifts “FE25-1”

“FE25-1” which was introduced to the market in April 2014, is an innovative battery-powered forklift that combines the outdoor capacity (waterproof, dust-proof qualities) and ease of use (rehydration unnecessary as well as rapid recharging capabilities of recharging up to 80% over a one hour lunch break) with the environment-friendliness and economy of a battery-powered forklift.

With the growing interest in “food safety and security”, in places such as fishing ports and wholesale market of fisheries products and fresh produce, the FE25-1 is being chosen by many customers for its low operating cost as well as its ‘clean’ characteristic of not producing any exhaust gas, smells or noise.

Also, in airport terminal warehouses, wood processing industry, wood products manufacture and sales companies, ceramic manufacturers, and cast and wrought iron industries—all of which are outdoor works affected by weather, fugitive dust (sand, etc.), and fine particles that make them unsuitable for battery-powered forklifts—the FE25-1 has been highly rated for proving its outdoor capabilities and low operating cost demonstrated in actual work situations. The cumulative total of domestic orders has already exceeded 700 forklifts.

FE25-1 operating at a fishing port

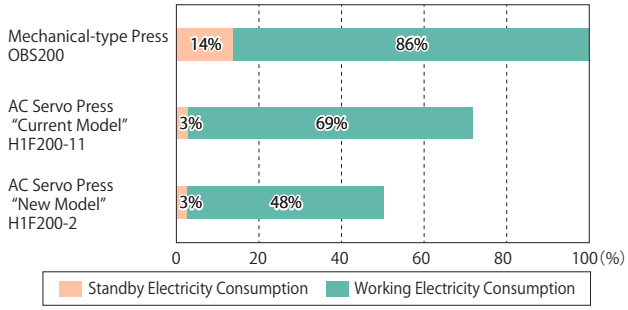
Introducing to the Market the AC Servo Press “H1F200-2”

Komatsu Industries Corporation has developed the AC Servo Press “H1F200-2” with improved productivity and energy conservation. This machine stores regenerated electricity in a condenser, and supplies electricity when necessary from the condenser. As a result, the consumption of electricity is decreased by approximately 50% compared to previous mechanical presses. In addition, based on this system, the electricity supply peak can be controlled, making it possible to operate it at the same electrical capacity as past mechanical presses, thereby contributing to energy conservation and decrease in contracted electricity for the user.

H1F200-2

We will continue to expand the range of products in the environment friendly H1F series.

AC Servo Press Electricity Consumption



Awarded the Excellent Energy Conserving Machinery “The Japan Machinery Companies Association Chairman Award”

Fiber Laser Cutting Machine KFL Series

The fiber laser cutting machine “KFL series”, marketed by Komatsu Industries Corp. since 2013, was selected to receive the “The Japan Machinery Companies Association Chairman Award” at the 2014 Excellent Energy Conserving Machinery Awards.

This award program is sponsored by the Japan Machinery Companies Association and has been held annually since 1980 for the purpose of promoting the development of energy conserving machinery, as well as popularizing the use of excellent energy conserving machinery by awarding a person, companies and other organizations which are recognized as contributing to promoting the efficient use of energy by developing and putting to practical use such excellent energy-saving machinery.

This is a laser-processing machine that aims to downsize the oscillating machine output while securing the productivity of sheet-metal processing for thin stainless steel sheets. Because the processing speed of sheet metal is proportionate to the energy density of the laser irradiating the material, it is important to guide the oscillating beam to the processing point without letting its quality deteriorate.

By directly connecting the process fiber running from the feed fiber of the oscillator to the processing point, we developed a method to guide a high quality beam to the processing point in this machine. As a result, while securing the same productivity level with 2kW output as the conventional type fiber 4kW, by downsizing the oscillator output, the oscillator’s energy consumption was decreased. Also, by condensing the nitrogen gas in the air for use as incision gas, the running cost at the sheet metal incision point was reduced.

KFL2051

Mitigating Climate Change

Initiatives to Mitigate Climate Change in Business Operations

Reducing CO_2 Emissions in Manufacturing Operations

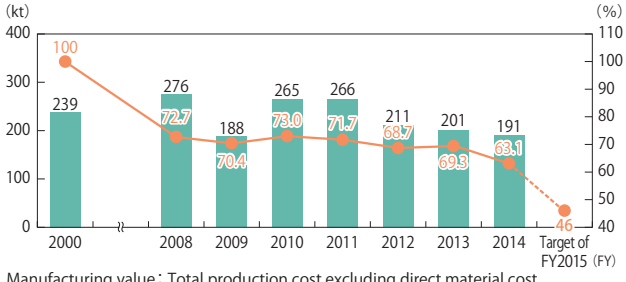
As part of our efforts to mitigate climate change, Komatsu has adopted an indicator of CO_2 emissions per unit of manufacturing value with respect to the amount of electricity, fuel gas, fuel oil, and other types of energy used in manufacturing operations, the company established more aggressive mid to long term objectives in FY2013.

In 2010, to contribute to Post Kyoto Protocol climate change measures, a mid-term goal for 40% reduction compared to 1990 levels by 2015 was established but following the start of activities to halve power consumption, activities are under way to achieve an ambitious 54% reduction compared to FY2000 levels.

Energy-saving activities were undertaken through the establishment and start of high efficiency lines and removal of old lines along with adopting renewable energy and horizontal expansion of various production improvements revolving around the "Company-Wide Power Reduction Project Team" established in May 2012. As a result, the index for the CO_2 emissions per unit of manufacturing value was reduced 36.9% compared to FY2000. CO_2 emissions at Komatsu's overseas manufacturing sites have also been cut 33% compared to FY2005 as a result of fuel conversion and lateral spread of typical improvements across domestic plants.

Komatsu will continue its effort into this fiscal year to achieve further reductions in the CO_2 emissions index by renewing aged buildings of over 40 years with a building that adopts the latest energy-saving technology and by making steady efforts on-site.

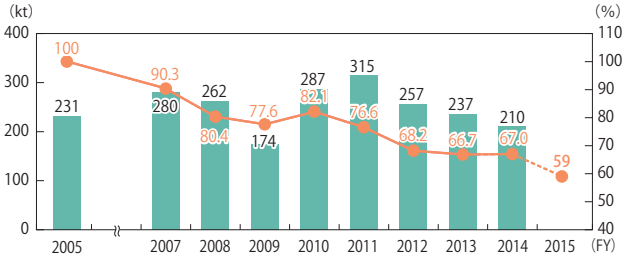
CO_2 emissions (Japan)



Manufacturing value: Total production cost excluding direct material cost, other facilities' components, and procured components

Total amount of CO_2 emissions of all Komatsu Group manufacturing facilities in Japan
CO_2 emission index per unit of manufacturing value at Komatsu Group manufacturing facilities in Japan (compared to FY2000)

CO_2 Emissions (Overseas)



Basic unit: CO_2 emission Index per unit of manufacturing value at each manufacturing facilities, weighted by ratio of manufacturing value of each site. (compared to FY2005)

CO_2 emissions (Komatsu Group manufacturing overseas facilities)
CO_2 emission basic unit (compared to FY2005)

Halving Electricity Usage Project

Halving Electricity Usage Project

As part of its continuing effort to reduce environmental burdens by cutting CO_2 emissions, Komatsu has decided to accelerate its pace of power usage reduction by boosting productivity drastically in anticipation of lingering nationwide power shortages in 2012 and after since their outbreaks in the service areas of Tokyo Electric Power Company, Inc. and Tohoku Electric Power Company, Inc. in the wake of the Great East Japan Earthquake in 2011.

Since an ultimate reduction of 50% or more has come into sight after in-depth analyses of electricity usage status, Komatsu is now geared at pursuing a new goal of cutting the peak power 50% from its summer 2010 level while checking its electricity usage to reduce environmental burdens.

Conceptual Approaches to Reducing Electricity Usage

Komatsu is committed to three basic concepts of reducing electricity usage as follows:

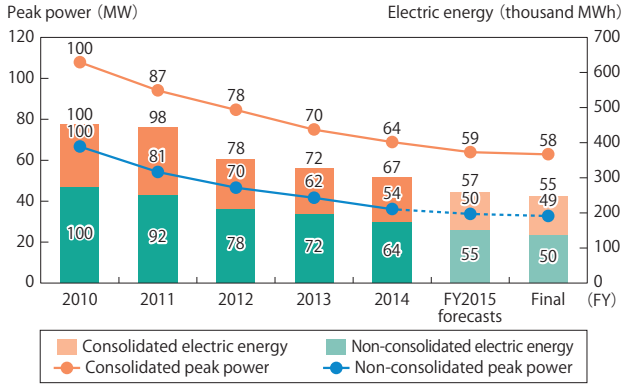
(1) Visualize electricity usage to eliminate waste
(2) Production reform
(3) Use alternative energy sources

FY2014 Status

(1) Status of Group-wide electricity usage reduction

The peak power reduction effort has progressed successfully, suggesting that Komatsu's own target reduction of 50% will be attained in FY2015.

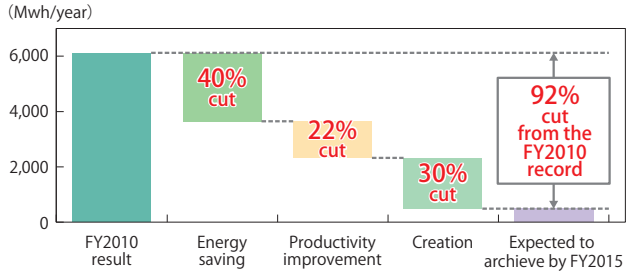
Electricity usage change forecasts



(2) Status of electricity usage reductions at a new assembly shop at Awazu Plant

With impetus mainly from a full launch of biomass power generation scheduled for FY2015, electricity usage reductions at a new assembly shop at Awazu Plant commissioned into service in 2014 are expected to reach 92% as planned.

Saving in electricity purchases at the new assembly plant (in terms of the FY2010 output)



Assembly line made easier to work with

Wood Biomass Power Generation

A wood biomass power generation system has been set up at Awazu Plant, jointly with the KAGA Forest Association in Ishikawa Prefecture in which the plant is located, to make effective use of the timber from forest thinning that had been heretofore left unused in the neighboring mountain forest.

The system has boilers fueled by wood chips supplied from the KAGA Forest Association (7,000 tons per year) and the steam generated by the boiler is used to power the compressor, generator and absorption refrigerators anticipating to save about 1,400 MWh of electricity and 800 kl of heavy oil annually.

Waste heat used for power generation and air conditioning boosts energy utilization efficiency to as high as 65% in the winter time.

Boiler

Generator

Reducing CO_2 Emissions in Logistics

Lower CO_2 Emissions of Global Transport (Basic Unit of CO_2 Emissions per Cargo Weight)

In FY2011, Komatsu began improving its assessment of CO_2 emissions from logistics operations for its 10 major international business locations.

Since FY2006, improvements have started in domestic locations, and now been implemented on a globally consolidated basis at all 25 business locations.

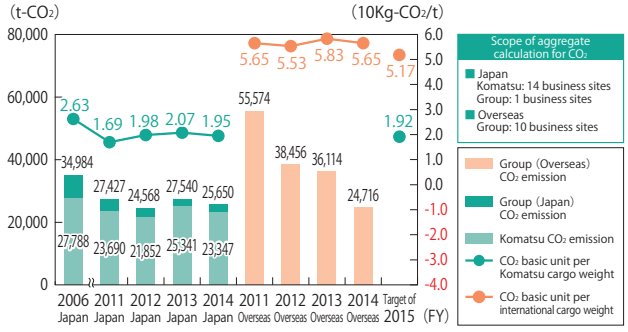
Focusing the following points, Komatsu has been achieving improvement of transportation base unit and reduction of transportation distance by truck in Japan. One is to expand the use of Tohoku-bound coastal shipping, one prioritized area of improvement since FY2011, and the other is to expand the use of railway transport, another prioritized area of improvement since FY2014.

Changes in the shipping destinations, coupled with improved modal shifts, have cut the average land trucking distance for domestic plants by 7.4%, with the basic unit of domestic CO_2 emissions improving by 5.8% compared to the previous year.

In the overseas scene, the need for long-distance trucking in the U.S. has been cut as a result of cross-sourcing North America-bound products from the CMO (Chattanooga, America) plant (with 44% of the total volume of North America-bound products having been switched to imports from the Osaka Plant in Japan and the BKC plant in Thailand).

Again, changes in the shipping destinations, coupled with the improvement at the CMO, have cut the average land trucking distance for overseas plants by 6%, with the basic unit of overseas CO_2 emissions improving by 3.0% compared to the previous year.

Global Shipment CO_2 Emissions Volume and CO_2 Emissions Per Cargo Weight



Improving the Rate of Modal Shift in Japan

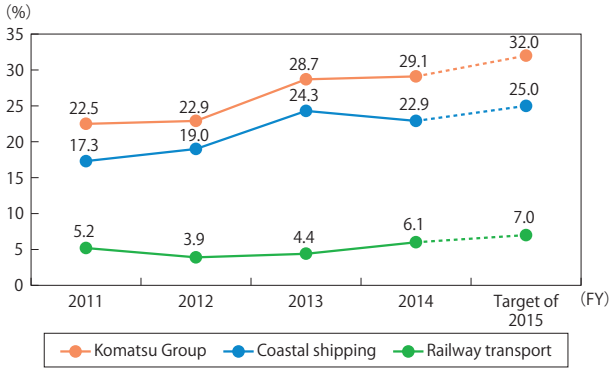
The rate of modal shift improved up to 29.1% in FY2014.

By making proactive use of coastal shipping in place of long-distance trucking, which had increased since the outbreak of the Great East Japan Earthquake in 2011, the rate of coastal shipping has expanded.

The rate of railway transport advanced by 1.7% to reach 6.1% in FY2014 after a continual effort to expand it having been pursued since FY2013 as a prioritized area of improvement.

Plants at which such effort was directed have gained a CO_2 emissions reduction of 298 (t-CO_2/year).

Promoting the Rate of Modal Shift across the Komatsu Group



Promoting Recycling

Promoting the Reman Remanufacturing Business

In our Reman business, the Komatsu Group remanufactures used engines, transmissions, and other key components (parts) of construction and mining equipment into "remanned" components that have the same high quality as newly manufactured components. We then put these components back on the market. The Group is promoting the Reman business at 12 Reman Centers around the world.

Promoting the Reman Business to the World

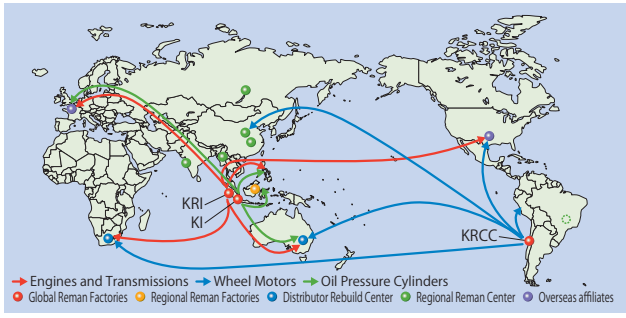
Reman, an abbreviation for remanufacturing, offers the following advantages to customers:

- Quality and performance that is the same as new components
- Lower cost for "remanned" components
- Reduced idle time for construction equipment because of adequate inventory of "remanned" components
- Resource conservation and waste reduction through reuse and recycling of components.

As the global center, Komatsu established PT Komatsu Reman Indonesia (KRI), which supplies parts, such as engines and transmissions for large-size construction machinery, and PT Komatsu Indonesia (KI), which supplies hydraulic cylinders. Komatsu also established another global center, Komatsu Reman Center Chile (KRCC), which provides components for electric dump trucks.

Additionally, Komatsu established PT KOMATSU REMANUFACTURING ASIA (KRA) in Indonesia to recycle all components of large-size construction machinery exclusively for the Indonesian market. For countries that are not part of our global supply chains (China, Russia, India and Brazil), we have established individual Reman Centers, and in April 2015 the 12th Reman Center was established in Myanmar.

The Myanmar (KMM) Reman Center established in April 2015



Reman Factories and Centers map

Providing Reman-related Information

The Komatsu Group has set up "Reman-Net" as a network for Komatsu Reman Centers around the world. The Group is actively using this network to develop Reman operations for reuse and recycling of components at the global level.

IC tags and two-dimensional bar codes are used to manage each item's remanufacturing history, and to track quality and durability information. This important information is reported to the Group, to help develop components with optimal service life.

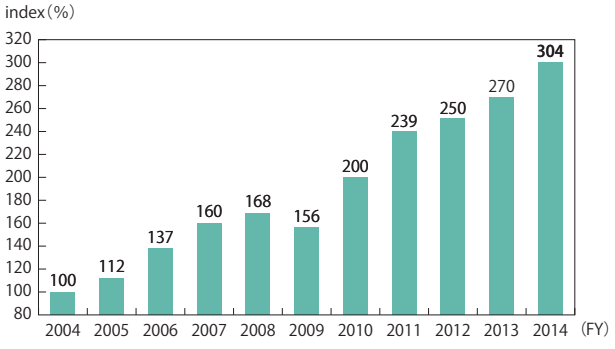
Future Steps

To further increase the reuse rate of used components, the Komatsu Group is reducing the number of disposed parts by:

- Developing parts for remanufacturing, oversized parts, etc
- Developing recycling-related technologies (assessment and measurement for reuse, remanufacturing worn-out parts, cleaning, heat treatment, etc.)

to reduce waste components, and thereby further increase reuse and recycling activities.

Changes in Reman Sales (base FY2004 = 100)



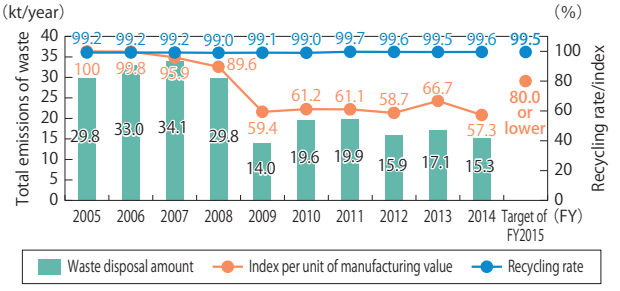
Reman Process

Effective Utilization of Resources in Manufacturing Operations (Waste)

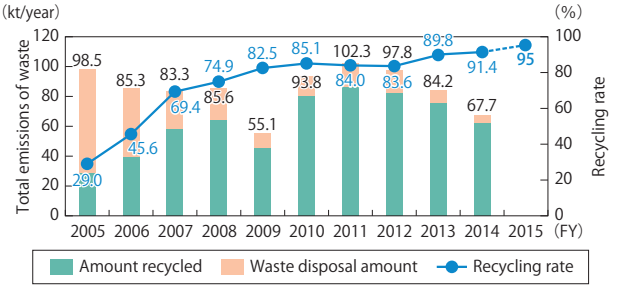
In tandem with reducing the amount of waste produced during manufacturing operations, Komatsu engages in "zero emissions" activities to use waste materials as resources. Starting in FY2011, Komatsu set new medium-term goals for our recycling rate and for the amount of waste generated per unit, and we are working toward those goals. In an effort to attain zero emissions, Komatsu raised the target recycling rate up to 99.5% or greater by FY2015. Then in FY2014, the recycling rate was 99.6%, making it the fourth year in a row to achieve the mid-term goal early. And Komatsu's mid-term goal is to have an above 95% recycling rate in our overseas operations by FY2015, and is working towards effective re-use of waste accordingly.The recycling rate at Komatsu's overseas manufacturing facilities picked up to 91.4% in FY2014.

Komatsu had projected cuts in the amount of waste materials generated per unit of manufacturing value in FY2015 of 20% or greater, compared to the FY2005 level. As a result of strict adherence to separated-waste collection and increased conversion of waste materials to resources, the amount of waste materials generated per unit has been trimmed by 42.7%, compared to the FY2005 level. Komatsu aims to continue its effective separated waste collection policy to achieve its medium-term goals.

Amount of Waste Generated (Data coverage: Komatsu Ltd. and the Komatsu Group manufacturing facilities in Japan)



Amount of Waste Generated (Data coverage: The Komatsu Group manufacturing facilities in overseas)



Effective Utilization of Resources in Manufacturing Operations (Water Resources)

In FY2014, Komatsu set a new medium-term target of achieving a 50% or greater reduction in the amount of water used per unit of manufacturing by FY2015, compared to the FY2005 level. An effort has been made to save the consumption of underground water at Komatsu facilities located in the Hokuriku District, which are major users of underground water. The Company has achieved reductions in the amount of water used per unit of manufacturing by 63.3% compared to the FY2005 level, through the reuse of water during processing and the elimination of wasteful day-to-day practices.

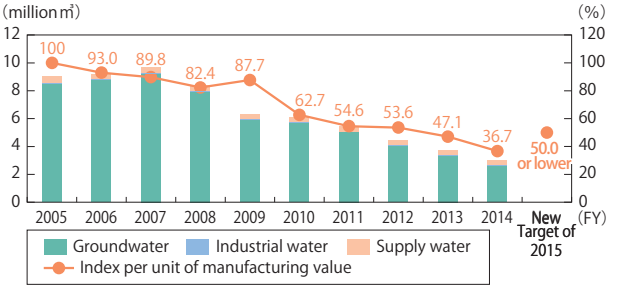
In particular, the Awazu Plant significantly reduced its groundwater consumption through measures such as adjusting the pump discharge, reevaluating the temperature of cooling water used for heat treatment, and the installation of water-circulation equipment. As a result, the Awazu Plant was able to reduce water usage by more than 80% per unit of manufacturing value.

Komatsu will continue efforts to save water resources to achieve its medium-term goals.

Amount of Water Resources Used and Index Per Units of Manufacturing Value

(Data coverage: Komatsu Ltd. and the Komatsu Group manufacturing facilities in Japan)

(updated with a reappraisal of the values of in-house production at Osaka Plant before FY2012)



TOPICS

Selected for CDP's CPLI and CDLI for 2 Consecutive Years

In the "CDP Japan 500 Climate Change Report 2014" published by CDP*1 , Komatsu was one of the companies awarded the highest rank of A for greenhouse gas reduction performance. We were also awarded a high score of 99 for information disclosure. As a result, Komatsu was selected for two consecutive years by both the CPLI*2 (Climate Performance Leadership Index) and the CDLI*3 (Climate Disclosure Leadership Index) of the 2014 CDP Japan 500. We also made it on to the "The A List, " which lists all global companies that received the A ranking.

Komatsu believes that environmental activities are a top priority issue for a company to fulfill social responsibility and foster sustainable development. Therefore, activities to reduce environmental impact is being actively promoted across all aspects of business activities.

For example, ICT construction machinery, hybrid hydraulic excavators, activities to halve power consumption, and biodiversity conservation activities are being promoted. The result of these climate change initiatives contributed to the high evaluation of our activities.

Preservation of the global environment is essential for companies to achieve sustainable growth, and Komatsu will continue to advance its environmental activities more than ever.

*1: The CDP is environmental disclosure information referenced by 767 institutional investors with a total of 92 trillion US dollars in assets under management, which accounts for half of the invested capital of the world.

*2: The CPLI is an index that selects leading companies with an especially excellent track record for initiatives regarding climate change.

*3: The CDLI is an index that selects leading companies with an especially excellent track record for information disclosure regarding climate change.

Biodiversity

Initiatives that Deal with Biodiversity

Komatsu will maintain our commitment to protecting biodiversity in our business activities, recognizing the impact of those activities on the ecosystem.

Initiatives that Deal with Biodiversity

With the establishment of Komatsu's "Declaration of Biodiversity" and "Biodiversity Guideline" in January 2011, Komatsu business units worldwide began activities designed to preserve biodiversity.

Komatsu promotes initiatives to preserve biodiversity on two levels.

First, the Company continues to promote ongoing efforts to reduce the environmental impact of Komatsu's business activities. Komatsu also considers biodiversity when deciding how land is to be used, such as when building factories.

Second, Komatsu is becoming directly involved in the preservation of biodiversity, and at the same time expanding our "one-site, one-theme activities" to raise employee's awareness of the need to preserve local ecosystems.

Initiatives of Each Business Facility

Practical Test Section of Development Division : Efforts to Make the Most of Surrounding Nature

We conduct distribution studies of rare species on facility grounds, maintain the Land of Fireflies as well as try to attract more fireflies.

We are also working on creating an environment friendly to the habitation of living organisms by exterminating the Goldenrod, a foreign species, from the facility grounds and attempting the recovery of vegetation native to the district.

Land of Fireflies

Goldenrod extermination

KOMATSU CASTEX : Biotope Construction and Rare Species Conservation

We constructed a biotope by refurbishing the pond, which was already a part of the facility grounds, and its surroundings. Efforts are being made to protect rare species by releasing the local district's rare species of fish into the pond.

At another pond, activities to promote natural revival are continuing with the transplanting of some euryale ferox, categorized as extinct in the wild.

Constructed biotope

Oyama Plant : Social Contributions Making Use of Satoyama

At the biotope that was constructed within the Oyama Plant, Biotope Satoyama (Komatsu Manabino Mori), we participated in the Reconstruction Support Activity by cultivating Japanese black pine seedlings to be transplanted to Fukushima prefecture.

Japanese black pine seedling cultivated at Satoyama

Planting Japanese black pine trees in Fukushima

TOPICS

Kanazawa Plant was awarded the "Great Kanazawa Environmental Activities Award" by the City of Kanazawa

As a biodiversity project based in the local district, our environment conservation activities, such as the planting of insect-resistant black pine in the neighboring "Awagasaki Yasuragino Hayashi," as well as the clearing of the underbrush 3 times a year, the cleaning of local beaches, and energy conservation, were highly evaluated and awarded a certificate of achievement by the City of Kanazawa in November, 2014.

The Staff of Kanazawa Factory that Received the Award.

Environmental Risk Management

Promoting Legal Compliance, and Pollution Mitigation and Prevention

Komatsu Group companies periodically report and archive environmental measurement results, in accordance with applicable laws and regulations of national and local authorities. In FY2014, no major accidents or legal violations occurred that would threaten environmental contamination.

Addressing Soil and Groundwater Contamination

Komatsu has established guidelines for testing soil and groundwater at our Japan facilities, and we perform investigations according to applicable laws and regulations at business units that are to be sold, closed, or demolished. If contamination is found, the Company takes appropriate measures under the supervision of local authorities. We are performing voluntary investigations at currently operating business units to check for contamination from volatile organic compounds (VOC) from cleaning solvents that were used in the past.

Komatsu has been surveying soil and groundwater for VOC contamination at Group business units in Japan since 2005. Business unit sites at which contamination has been detected have implemented countermeasures. The Company has selected methods to clean up the sites as quickly as possible.

Work at the Oyama Plant was completed in FY2009. The clean up work at the other sites are continuing.

In FY2013, change in land character notifications were filed for the Awazu Plant, in accordance with the provision of Article 4, Amended Soil Contamination Countermeasures Act. However, no survey order was issued from administrative authorities in relation to these sites because there was no concern regarding possible contamination.

Going forward, along with driving the clean up activities, we will monitor the site boundaries to make sure that offsite outflow of groundwater does not exceed the standards.

Status of Soil and Groundwater Cleanup in Japan

Business unit	Cleanup method	Cleanup status
Awazu Plant	Excavation and removal, soil vapor extraction, groundwater withdrawal and aeration, bioremediation*	In process
Komatsu Plant (formerly)	Excavation and removal, groundwater withdrawal and aeration, bioremediation	In process
Osaka Plant	Soil vapor extraction, air sparging, groundwater withdrawal and aeration, bioremediation	In process
Shonan Plant	Excavation and removal, groundwater withdrawal and aeration	In process
Tochigi Plant	Excavation and removal, bioremediation	In process

*Bio-remediation is purification process of hazardous materials through utilizing micro organisms and returning the soil to a non-hazardous state.
-Surveys revealed no contamination for the Koriyama Plant, Research Division in Hiratsuka, Techno Center in Izu and Field Testing Department in Oita.

Managing PCB (Polychlorinated Biphenyl) Waste

Komatsu stores and manages PCB-containing waste, such as transformers, in accordance with Japan's "Law Concerning Special Measures Against PCB Waste" and the "Waste Disposal and Public Cleansing Law." In FY2008, Komatsu entrusted PCB disposal to the Japan Environmental Safety Corporation (JESCO). A total of 560 PCB-containing capacitors were disposed of by FY2013. In FY2014, JESCO disposed of an additional 9 capacitors.

Continuing through 2015, we plan to carry out further disposal work to locate low-concentration PCB waste as well.

Number of PCB-containing Transformers and Capacitors in Storage

Company	Site	Capacitors, etc.		Stabilizers	
		Number of disposal in FY2014	Number of awaiting disposal	Number of disposal in FY2014	Number of awaiting disposal
Komatsu Ltd.	Head office	0	0	0	35
	Awazu Plant	0	18	0	62
	Osaka Plant	0	0	0	137
	Oyama Plant	9	63	0	0
	Shonan Plant	0	2	0	0
	Tochigi Plant	0	5	0	0
	Field Testing Department	0	0	0	4
	Construction & Mining Equipment Marketing Division	0	0	0	131
Subtotal of Komatsu		9	88	0	369
Komatsu NTC Ltd.		0	2	0	0
Komatsu Cabtec Co., Ltd.		0	2	0	0
Komatsu House Ltd.		0	1	0	0
Komatsu Construction Equipment Sales and Service Japan Ltd.		0	12	0	490
Total of Komatsu group		0	17	0	490
Total		9	105	0	859

-The share from the former Komatsu Plant was transferred to the Awazu Plant. The share from the former Mooka Plant was transferred to the Oyama Plant.

Management of Chemical Substances and Pollution Prevention

Reducing the amount of PRTR-related substances

The number of substances covered by PRTR* with a handling volume of 1 ton or more (0.5 ton or more for Class I Specified) in FY2014 has remained at 23, unchanged from the previous year. The handling volume (1 ton or more) has been reduced about 10% from the previous year.

Among all PRTR-listed substances, the three substances of xylene, ethyl benzene and toluene account for approximately 94% of the emissions from Komatsu and Komatsu Group manufacturing facilities. Most of the emissions are released into the atmosphere.

At domestic Komatsu group production facilities, initiatives, such as switching to paints with a lower proportion of PRTR-listed substances, using high-solid paints, improving coating efficiency and reducing film thickness, are being undertaken for the continuous reduction of handling volumes. Also, substances handled in large volumes are being changed to secondary materials that contain chemical substances having less impact on the human body. The amount of emissions in FY2014 has been reduced by about 12% from the previous year.

*PRTR : Law designed to mandate the disclosure of the amount of specific chemical substances released into the environment to promote the management of such substances (The notification system based on the PRTR Law)

Environmental Risk Management

Reducing the amount of VOC released

The majority of VOC emissions are from VOC contained in paint such as Ethylbenzene and Xylene.

The amount of emissions in FY2014 has been reduced by about 15% from the previous year by switching to paints having a less content of volatile matter, migrating to paints having a higher coating efficiency and so on.

Further improvement efforts continue in pursuit of further reductions.

A painting operation at Osaka Plant using a paint having a higher coating efficiency

Names of Class I Designated Chemical Substances and the Amounts (Released and Transferred from Komatsu Group Manufacturing Facilities in Japan)

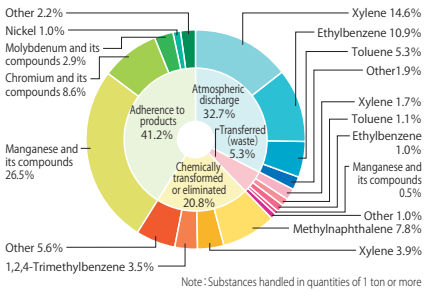
(handling 1 ton or more, or 0.5 ton or more for Class I Specified Chemical Substances) (applicable PRTR substances from April 2010)

(Unit: t)

Number under the PRTR Law	Name	Amount handled	Amount released				Amount transferred		Chemically transformed or eliminated	Amount Contained in Products
			Air	Water	Soil	Buried	Sewage	Waste		
412	Manganese and its compounds	384.2	0.6	0.00	—	—	—	7.4	0.0	376.2
80	Xylene	286.5	207.6	—	—	—	—	23.8	54.7	0.4
53	Ethylbenzene	188.5	154.8	—	—	—	—	15.1	18.2	0.4
87	Chromium and chromium (III) compounds	123.8	0.0	—	—	—	—	1.7	—	122.1
438	Methylna phthalene	111.7	0.6	—	—	—	—	—	111.1	—
300	Toluene	98.4	74.7	—	—	—	—	15.5	8.1	—
296	1,2,4-trimethyl benzene	68.4	16.1	—	—	—	—	2.2	50.1	0.0
453	Molybdenum and its compounds	41.1	—	—	—	—	—	0.0	—	41.1
448	Methylenebis (4,1 phenylene) = diisocyanate	31.7	—	—	—	—	—	0.0	31.4	0.3
308	Nickel	14.5	—	—	—	—	—	0.0	—	14.5
321	Vanadium compounds	11.3	—	—	—	—	—	0.0	—	11.3
88	Chromium (VI) compounds *1 *2	11.0	0.0	—	—	—	—	2.7	—	—
297	1,3,5-trimethyl benzene	9.1	4.4	—	—	—	—	0.6	4.1	—
207	2,6-Di-tert-butyl-4-methylphenol	8.9	0.0	—	—	—	—	1.1	—	7.8
277	Triethylamine	8.6	1.9	—	—	—	—	0.0	6.6	—
132	Cobalt and its compounds	7.6	—	—	—	—	—	0.9	—	6.7
258	1,3,5,7-tetraaza tricyclo[3,3,1,1(3,7)] decane *3	4.8	—	—	—	—	—	—	2.5	2.3
188	N,N-dicyclohe xylamine	4.6	0.3	0.0	—	—	—	4.0	0.2	0.1
349	Phenol *3	4.3	0.0	—	—	—	—	0.0	4.3	0.0
392	n-hexane	3.2	—	—	—	—	—	—	1.9	—
302	Naphthalene	2.7	1.2	—	—	—	—	0.5	1.0	—
83	Isopropyl benzene	1.6	0.9	—	—	—	—	0.1	0.6	—
1	Zinc compounds (water- soluble)	1.2	—	—	—	—	—	0.1	—	1.1

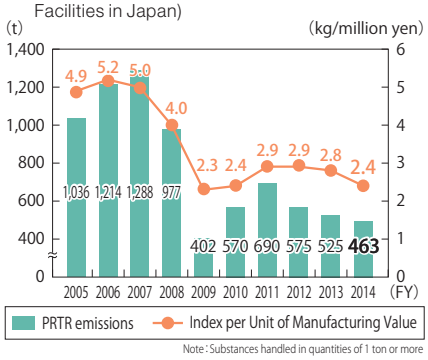
*1: During chrome plating, chromium (VI) compounds become chromium compounds. Therefore, the amount transferred and the amount contained in products are entered as chromium and chromium(III) compounds.
*2: PRTR Class I Specified Chemical Substances
*3: Although the amount contained is below the amount that requires registration with the PRTR, we report the data because the amount released exceeds one ton.

Breakdown of the Amount of PRTR-related Substances (Released and Transferred from Komatsu Group Manufacturing Facilities in Japan)



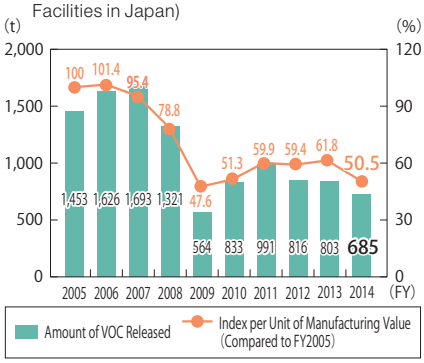
Note : Substances handled in quantities of 1 ton or more

Amount of PRTR-related Substances (Released from Komatsu Group Manufacturing Facilities in Japan)



Note : Substances handled in quantities of 1 ton or more

Amount of VOC (Released from Komatsu GroupManufacturing Facilities in Japan)



Reducing the Use of Substances of Environmental Concern and Complying with the EU REACH Regulation

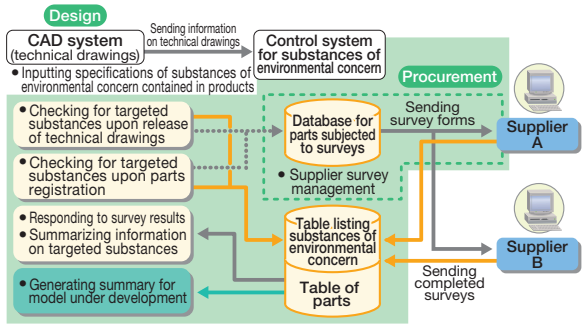
Komatsu has been making efforts from an early stage to reduce the use of asbestos, lead, and other substances of environmental concern. In FY1999, Komatsu created its own list of banned substances and substances approved for use only in limited circumstances (Refer to "Substances of Environmental Concern Banned or to Be Reduced for Use in Products"), which was based in part on the chemical substances banned under Japan's Law Concerning the Examination and Regulation of Manufacture of Chemical Substances Control, as well as regulations in other countries.

In addition, Komatsu has begun comprehensive control of substances of environmental concern. Recently, in compliance with REACH*1, Komatsu began revising its listing of substances designated as approved for limited use, "to be reduced," and "banned." Through the cooperation of suppliers, the Company has initiated a system to strengthen control of substances of environmental concern in its products. This system has been deployed in Japan and Europe, and is also being implemented in other overseas subsidiaries.

By using this system, we identify SVHC (substances of very high concern) in vehicles currently in production and in newly developed vehicles. Furthermore, we also regularly check for new SVHCs to be added to the list.

There are currently 161 SVHCs registered, but more are added on a bi-yearly basis. In future, it is said that the number of SVHC will increase up to 1,500. Komatsu has devised a workflow to monitor control of these substances.

Control System for Substances of Environmental Concern



Substances of Environmental Concern Banned orto Be Reduced for Use in Products

Rank	Number	Chemical Substance
Banned	14	●Hexavalent Chromium ●Cadmium ●Mercury ●PBB/PBDE ●Tri-substituted Organostannic Compounds ●PCB ●Asbestos ●Specified CFCs/Alternative CFCs (HCFC) ●Trichloroethylene ●Triethanolamine ●Hexachlorobenzene ●PFOS (Perfluorooctanesulfates)
To be reduced (Subject to limited use)	15	●Lead ●Arsenic ●Selenium ●Alternative CFCs (HFC) ●Specified phthalate ester (DEHP/DBP/BBP/DIBP) *2 *3 ●Specified Brominated Flame Retardents (HBCDD)*3/ Specified Chlorinated Flame Retardents (TCEP) ●Polycyclic Aromatic Hydrocarbons (PAH) ●RCF (Fire-Resistant Ceramic Fibers) (Alumina and Scilica Types)*3 ●Methanol ●DZ ●BNST
Substances of Very High Concern (SVHC) under the EU REACH Reguleation	(161)*4	Komatsu is subject to control the following substances, which might be used in Komatsu products. ●DEHP/DBP/BBP/DIBP ●HBCDD/Trisphosphates (2-Chloroethyl) ●RCF ●Specified Lead Compounds (SOC 4)

*1: REACH: EU regulations for Registration, Evaluation, Authorization and Restriction of Chemicals
*2: Diethylhexyl phthalate, dibutyl phthalate, benzyl butyl phthalate, diisobutyl phthalate
*3: Review for stricter limits due to regulatory trends.
*4: The number of substances registered up until December, 2014 (progressively updated). Includes materials that are not contained in Komatsu construction equipment.

Recent External Commendations and Evaluations on Komatsu's Environmental Conservation and Social Activities

2014	September	Selected for inclusion in the Dow Jones Sustainability Indices (World and Asia Pacific)
	October	Selected by CDP for "Climate Performance Leadership" and "Climate Disclosure Leadership" in the CDP Japan 500 report for 2014
	November	Ranked 17th overall (out of 538 companies) under the "NICES" company rating system by Nihon Keizai Shimbun, Inc.
2015	January	Ranked 8th (out of 419 companies) in the Manufacturing Sector in Nihon Keizai Shimbun's 18th Environmental Management Survey
	January	KFL Series fiber laser cutting machine received the Japan Machinery Federation Chairman's Award in the 2014 Energy-Efficient Machinery Award

Environmental Data by Manufacturing Facility in Japan

Overview

Manufacturing facility	Awazu Plant (established in 1921)	Kanazawa Plant (established in 2007)	Osaka Plant (established in 1952)
Location	Komatsu, Ishikawa Prefecture	Kanazawa, Ishikawa Prefecture	Hirakata, Osaka Prefecture
Main products	Small and medium-sized bulldozers, small hydraulic excavators, small and medium-sized wheel loaders, motor graders, armored vehicles, etc.	Ultra-large hydraulic excavators, large presses, medium presses	Large bulldozers, medium-sized and large hydraulic excavators, mobile crushers/recyclers/tub grinders (crushers, soil stabilizers, tub grinders, etc.)
Site/Green Landscape (1,000 m²)	700/85	134/29	591/88
Number of employees	3,212	703	2,196
Date of ISO14001 certification acquisition	September 1997	May 2007	July 1997

*The number of employees includes those working for Komatsu affiliates on the premises.
*The number of employees as of the end of March 2015.

Major Performance

Environmental impact
*Refer to the Data on Environmental Impact Resulting from Business Activities for details on the methods used to calculate amounts.
*Total emissions of waste are expressed as a composite of the amount recycled (excluding valuables) and the amount disposed.
*Recycling rate is calculated by dividing the amount recycled (including valuables) by the amount generated (including valuables).
*Total emissions of BOD and COD are calculated by multiplying the average concentration by the amount of wastewater.

Item	Actual value	Item	Actual value	Item	Actual value
Total CO_2 emissions	33,852 t-CO_2	Total CO_2 emissions	1,467 t-CO_2	Total CO_2 emissions	25,635 t-CO_2
NOx total amount	34,675 kg	NOx total amount	— kg	NOx total amount	3,525 kg
SOx total amount	3,722 kg	SOx total amount	0 kg	SOx total amount	175 kg
Total emissions of waste	1,545 t	Total emissions of waste	144 t	Total emissions of waste	1,445 t
Amount recycled	1,544 t	Amount recycled	144 t	Amount recycled	1,441 t
Recycling rate	100 %	Recycling rate	100 %	Recycling rate	99.8 %
BOD emissions	1,182 kg	BOD emissions	72 kg	BOD emissions	668 kg
COD emissions	2,267 kg	COD emissions	339 kg	COD emissions	1,282 kg
Wastewater	619,394 m³	Wastewater	71,854 m³	Wastewater	177,235 m³
Output of in-house power generation	8,594 MWh	Output of in-house power generation	618 MWh	Output of in-house power generation	5,320 MWh

Energy consumption
*The heat energy conversion factor is calculated in keeping with Greenhouse Gas Emissions Calculation - Reporting Manual, which is based on the act on Promotion of Global Warming Countermeasures.

Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)
Electricity	53,110 MWh	515,665	Electricity	3,758 MWh	36,643	Electricity	43,057 MWh	417,971
Heavy oil A	3,092 kℓ	120,908	Heavy oil A	0 kℓ	0	Heavy oil A	116 kℓ	4,536
Kerosene	9 kℓ	339	Kerosene	0 kℓ	0	Kerosene	13 kℓ	473
Light oil	326 kℓ	12,460	Light oil	2 kℓ	78	Light oil	340 kℓ	13,004
Town gas	0 Nkm³	0	Town gas	0 Nkm³	0	Town gas	3,827 Nkm³	160,337
LPG	1,365 t	68,542	LPG	6 t	310	LPG	56 t	2,827
Other		1,557	Other		0	Other		1,110
Total		719,470	Total		37,031	Total		600,259

Water consumption

Item	Actual value	Item	Actual value	Item	Actual value
Groundwater	481,485 m³	Groundwater	64,481 m³	Groundwater	29,276 m³
Industrial water	0 m³	Industrial water	0 m³	Industrial water	0 m³
Supply water	78,850 m³	Supply water	7,373 m³	Supply water	94,862 m³
Total	560,335 m³	Total	71,854 m³	Total	124,138 m³

Compliance Conditions to Major Regulations

Air

Item	Unit	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value
Nitrogen oxides (NOx)	ppm	Boiler	180	100	N/A	—	—	Boiler	150	25
	ppm	Diesel engine	950	810				Metal furnace	180	72
	ppm							Paint drying furnace	230	10
	ppm							Gas engine	600	75
Sulfur oxides (SOx)	—	K-value regulation	17.5	2.39						
Soot and dust	g/m³N	Boiler	0.3	0.017	N/A	—	—	Boiler	0.05	0.008
	g/m³N	Diesel engine	0.1	0.015				Metal furnace	0.1	0.020
	g/m³N							Paint drying furnace	0.1	0.005
	g/m³N									

*Regulated values are in accordance with the Air Pollution Control Law and local regulations.

Wastewater

Item	Regulated value according to the Water Pollution Control Law	Regulated value	Actual value			Regulated value	Actual value			Regulated value	Actual value		
			Maximum	Minimum	Average		Maximum	Minimum	Average		Maximum	Minimum	Average
pH	5.8~8.6	5.8~8.6	7.5	6.6	7.1	5.0~9.0	7.8	6.5	7.1	5.8~8.6	8.0	6.8	7.3
BOD (Biochemical oxygen demand)	160mg/ℓ	80	2.2	ND	1.3	80	1	ND	0.8	25	10	ND	3.8
COD (Chemical Oxygen Demand)	160mg/ℓ	80	9.0	1.3	2.8	80	13	1.06	3.4	25	11	2.6	7.2
Suspended solids (SS)	200mg/ℓ	120	7.0	ND	2.4	120	5.8	1.0	3.4	90	7	ND	3.1
Mineral oils	5mg/ℓ	5	ND	ND	ND	5	ND	ND	ND	3	ND	ND	ND
Copper	3mg/ℓ	3	ND	ND	ND	3	ND	ND	ND	5	ND	ND	ND
Zinc	2mg/ℓ	2	0.09	ND	0.07	2	0.08	ND	0.1	2	ND	ND	ND
Nitrogen	120mg/ℓ	120	3.9	3	3.5	120	43	0.7	21.9	120	29	1.9	16.6
Phosphorus	16mg/ℓ	16	0.37	0.02	0.16	16	4.8	0.03	2.42	16	0.23	0.018	0.1
Cadmium	0.03mg/ℓ	0.03	ND	ND	ND	0.03	ND	ND	ND	0.003	ND	ND	ND
Lead	0.1mg/ℓ	0.1	ND	ND	ND	0.1	ND	ND	ND	0.05	ND	ND	ND
Chromium (VI)	0.5mg/ℓ	0.5	ND	ND	ND	0.5	ND	ND	ND	0.05	ND	ND	ND
Trichloroethylene	0.3mg/ℓ	0.3	ND	ND	ND	0.3	ND	ND	ND	0.03	ND	ND	ND
Tetrachloroethylene	0.1mg/ℓ	0.1	ND	ND	ND	0.1	ND	ND	ND	0.01	ND	ND	ND
Dichloromethane	0.2mg/ℓ	0.2	ND	ND	ND	0.2	0.006	ND	0.004	0.02	ND	ND	ND
1,1,1-trichloroethane	3mg/ℓ	3	ND	ND	ND	3	ND	ND	ND	1	ND	ND	ND

*Regulated values are in accordance with the Water Pollution Control Law and local regulations.
*ND ("not detected") indicates a value below the lower limit of detection.
*ND is considered to be the lower limit of detection when calculating the average.
*Other items are confirmed to be below the regulated value.

*Data for the Awazu Plant include data for the Komatsu NTC Ltd (KM Division).

*Data for the Kanazawa Plant include data for the Kanazawa Dai-ichi and Dai-ni Plant.

*Data for the Osaka Plant include data for the Rokko Plant.

Ibaraki Plant (established in 2007)	Oyama Plant (established in 1962)	Koriyama Plant (established in 1995)	Shonan Plant (established in 1966)
Hitachinaka, Ibaraki Prefecture	Oyama, Tochigi Prefecture	Koriyama, Fukushima Prefecture	Hiratsuka, Kanagawa Prefecture
Large wheel loaders, dump trucks	Engines for construction/industrial machinery, diesel generators, hydraulic equipment, axle, excimer lasers, etc.	Hydraulic cylinders, swivel joints, gear pumps	Control equipment for construction and mining equipment, hybrid components Thermoelectric modules, temperature control equipment, etc.
350/72	591/125	297/153	69/15
900	3,180	431	1,029
May 2007	May 1997	July 2002	March 2000

Item	Actual value	Item	Actual value	Item	Actual value	Item	Actual value
Total CO_2 emissions	3,359 t-CO_2	Total CO_2 emissions	47,749 t-CO_2	Total CO_2 emissions	9,024 t-CO_2	Total CO_2 emissions	3,683 t-CO_2
NOx total amount	166 kg	NOx total amount	36,481 kg	NOx total amount	48,987 kg	NOx total amount	— kg
SOx total amount	4 kg	SOx total amount	414 kg	SOx total amount	1,998 kg	SOx total amount	0 kg
Total emissions of waste	302 t	Total emissions of waste	1,797 t	Total emissions of waste	973 t	Total emissions of waste	170 t
Amount recycled	302 t	Amount recycled	1,797 t	Amount recycled	973 t	Amount recycled	170 t
Recycling rate	100 %	Recycling rate	100 %	Recycling rate	100 %	Recycling rate	100 %
BOD emissions	3,044 kg	BOD emissions	2,527 kg	BOD emissions	60 kg	BOD emissions	3,409 kg
COD emissions	— kg	COD emissions	3,782 kg	COD emissions	184 kg	COD emissions	— kg
Wastewater	22,697 m^3	Wastewater	416,000 m^3	Wastewater	14,830 m^3	Wastewater	47,631 m^3
Output of in-house power generation	316 MWh	Output of in-house power generation	10,767 MWh	Output of in-house power generation	5,730 MWh	Output of in-house power generation	76 MWh

Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)
Electricity	6,384 MWh	62,320	Electricity	67,342 MWh	655,194	Electricity	9,595 MWh	92,740	Electricity	9,190 MWh	90,678
Heavy oil A	0 kℓ	0	Heavy oil A	52 kℓ	2,029	Heavy oil A	1,414 kℓ	55,287	Heavy oil A	0 kℓ	0
Kerosene	2 kℓ	57	Kerosene	2,375 kℓ	87,174	Kerosene	0 kℓ	0	Kerosene	0 kℓ	0
Light oil	313 kℓ	11,962	Light oil	3,979 kℓ	151,990	Light oil	6 kℓ	244	Light oil	13 kℓ	481
Town gas	0 Nkm^3	0	Town gas	2,621 Nkm^3	109,807	Town gas	0 Nkm^3	0	Town gas	61 Nkm^3	2,546
LPG	28 t	1,401	LPG	36 t	1,830	LPG	497 t	24,944	LPG	0 t	0
Other		0	Other		1,325	Other		0	Other		0
Total		75,740	Total		1,009,350	Total		173,215	Total		93,704

Item	Actual value	Item	Actual value	Item	Actual value	Item	Actual value
Groundwater	0 m^3	Groundwater	457,527 m^3	Groundwater	0 m^3	Groundwater	0 m^3
Industrial water	0 m^3	Industrial water	0 m^3	Industrial water	3,097 m^3	Industrial water	0 m^3
Supply water	22,697 m^3	Supply water	1,357 m^3	Supply water	23,120 m^3	Supply water	47,666 m^3
Total	22,697 m^3	Total	458,884 m^3	Total	26,217 m^3	Total	47,666 m^3

Facility	Regulated value	Actual value	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value
Diesel engine	100	92*	Diesel engine	950	770	Cogeneration engine	760	740	N/A	—	—
			Gas turbine	75	20						
K-value regulation	9	0.05	K-value regulation	7.0	0.77	K-value regulation	11.5	0.69			
Diesel engine	0.1	0.03	Diesel engine	0.1	0.041	Baking (electric) furnace	0.2	less than 0.003	N/A	—	—
			Gas turbine	0.05	0.001	Cogeneration engine	0.1	0.075			

Regulated value (Sewage Water Law)	Actual value			Regulated value	Actual value			Regulated value	Actual value			Regulated value (Sewage Water Law)	Actual value		
	Maximum	Minimum	Average		Maximum	Minimum	Average		Maximum	Minimum	Average		Maximum	Minimum	Average
5~9	9	8	8.5	5.8~8.6	7.4	6.9	7.2	5.8~8.6	7.2	6.6	6.9	5~9	8.5	6.6	7.7
600	330	56	134	25	18.6	1.1	6.1	40	10	1.2	4.1	600	230	1	55
—	—	—	—	25	18.2	3.4	9.1	40	18	7	12.4	—	—	—	—
600	510	84	243	50	23.8	2	6.5	70	6.6	1.2	3.8	600	110	ND	26
5	ND	ND	ND	5	0.7	ND	0.5	1	ND	ND	ND	5	ND	ND	ND
—	—	—	—	3	ND	ND	ND	2	ND	ND	—	3	ND	ND	ND
—	—	—	—	2	0.1	ND	0.1	2	0.08	0.08	—	2	0.15	ND	0.06
—	—	—	—	20	19.9	2.0	6.3	120	11	11	—	—	—	—	—
—	—	—	—	2	0.4	0.1	0.3	16	3.1	3.1	—	—	—	—	—
—	—	—	—	0.03	ND	ND	ND	0.03	ND	ND	—	0.03	ND	ND	ND
—	—	—	—	0.1	ND	ND	ND	0.1	ND	ND	ND	0.1	ND	ND	ND
—	—	—	—	0.1	ND	ND	ND	0.2	ND	ND	ND	0.5	ND	ND	ND
—	—	—	—	0.3	ND	ND	ND	0.3	ND	ND	—	0.3	ND	ND	ND
—	—	—	—	0.1	ND	ND	ND	0.1	ND	ND	—	0.1	ND	ND	ND
—	—	—	—	—	—	—	—	0.2	ND	ND	—	0.2	ND	ND	ND
—	—	—	—	3	ND	ND	ND	3	ND	ND	—	3	ND	ND	ND

*Data for the Shonan Plant include data for KELK Ltd.

Environmental Data by Manufacturing Facility in Japan

Overview

Manufacturing facility	Tochigi Plant (established in 1968)	Research Division (established in 1985)	Komatsu Castex Ltd. (established in 1952)
Location	Oyama, Tochigi Prefecture	Hiratsuka, Kanagawa Prefecture	Himi, Toyama Prefecture
Main products	Forklift trucks, mini excavators, mini wheel loaders	R&D on business fields of the Komatsu Group	Iron castings, steel castings, molds for casting, etc.
Site/Green Landscape (1,000 m²)	215/21	195/124	433/104
Number of employees	856	170	942
Date of ISO14001 certification acquisition	February 1998	May 2008	January 2000

*The number of employees includes those working for Komatsu affiliates on the premises.
*The number of employees as of the end of March 2015.

Major Performance

Environmental impact

*Refer to the Data on Environmental Impact Resulting from Business Activities for details on the methods used to calculate amounts.
*Total emissions of waste are expressed as a composite of the amount recycled (excluding valuables) and the amount disposed.
*Recycling rate is calculated by dividing the amount recycled (including valuables) by the amount generated (including valuables).
*Total emissions of BOD and COD are calculated by multiplying the average concentration by the amount of wastewater.

Item	Actual value	Item	Actual value	Item	Actual value
Total CO_2 emissions	4,676 t-CO_2	Total CO_2 emissions	1,338 t-CO_2	Total CO_2 emissions	51,118 t-CO_2
NOx total amount	3,572 kg	NOx total amount	335 kg	NOx total amount	5,291 kg
SOx total amount	1,592 kg	SOx total amount	1 kg	SOx total amount	1,419 kg
Total emissions of waste	430 t	Total emissions of waste	154 t	Total emissions of waste	6,017 t
Amount recycled	430 t	Amount recycled	153 t	Amount recycled	6,010 t
Recycling rate	100 %	Recycling rate	99.6 %	Recycling rate	100 %
BOD emissions	264 kg	BOD emissions	11 kg	BOD emissions	1,166 kg
COD emissions	297 kg	COD emissions	29 kg	COD emissions	1,570 kg
Wastewater	48,550 m³	Wastewater	4,427 m³	Wastewater	741,599 m³
Output of in-house power generation	122 MWh	Output of in-house power generation	5 MWh	Output of in-house power generation	0 MWh

Energy consumption

*The heat energy conversion factor is calculated in keeping with Greenhouse Gas Emissions Calculation - Reporting Manual, which is based on the act on Promotion of Global Warming Countermeasures.

Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)
Electricity	5,966 MWh	58,064	Electricity	2,724 MWh	26,372	Electricity	101,622 MWh	989,428
Heavy oil A	740 kℓ	28,952	Heavy oil A	0 kℓ	0	Heavy oil A	1,338 kℓ	52,299
Kerosene	0 kℓ	0	Kerosene	102 kℓ	3,738	Kerosene	764 kℓ	28,027
Light oil	51 kℓ	1,966	Light oil	6 kℓ	218	Light oil	228 kℓ	8,692
Town gas	0 Nkm³	0	Town gas	0 Nkm³	0	Town gas	0 Nkm³	0
LPG	72 t	3,615	LPG	7 t	375	LPG	1,991 t	99,966
Other		416	Other		11	Other		0
Total		93,011	Total		30,714	Total		1,178,411

Water consumption

Item	Actual value	Item	Actual value	Item	Actual value
Groundwater	62,554 m³	Groundwater	0 m³	Groundwater	750,599 m³
Industrial water	0 m³	Industrial water	0 m³	Industrial water	0 m³
Supply water	0 m³	Supply water	8,674 m³	Supply water	26,377 m³
Total	62,554 m³	Total	8,674 m³	Total	776,976 m³

Compliance Conditions to Major Regulations

Air

Item	Unit	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value
Nitrogen oxides (NOx)	ppm	Small boilers	(260)	110	Service generator	711	150	Annealing furnace	200	161
	ppm				Cold/hot water generator	390	43	Annealing furnace (small)	180	7 or less
	ppm							Calciners	220	24
	ppm									
Sulfur oxides (SOx)	—	K-value regulation	7.0	1.1	K-value regulation	11.5	0.07	K-value regulation	17.5	3.01
Soot and dust	g/m³N	Small boilers	(0.5)	0.006	Service generator	0.1	0.017	Annealing furnace	0.25	0.01 or less
	g/m³N				Cold/hot water generator	0.2	0.002	Annealing furnace (small)	0.2	0.01 or less
	g/m³N							Calciners	0.15	0.01 or less
	g/m³N							Arch furnace	0.1	0.01 or less

*Regulated values are in accordance with the Air Pollution Control Law and local regulations.
*Regulated values of NOx, soot and dust are in accordance with self-regulatory measures, because these boilers are small.

Wastewater

Item	Regulated value according to the Water Pollution Control Law	Regulated value	Actual value			Regulated value	Actual value			Regulated value	Actual value		
			Maximum	Minimum	Average		Maximum	Minimum	Average		Maximum	Minimum	Average
pH	5.8~8.6	5.8~8.6	7.5	6.9	7.1	5.8~8.6	7.5	6.5	7.0	5.8~8.6	8.6	7.1	7.7
BOD (Biochemical oxygen demand)	160mg/ℓ	25	13	1.4	5.4	10	3	1	2.0	25	4	ND	1.5
COD (Chemical Oxygen Demand)	160mg/ℓ	25	11.9	3.4	6.1	25	9	1	6.0	160	3.6	1.3	2.3
Suspended solids (SS)	200mg/ℓ	50	21.2	1.2	9.7	65	28	1	7.7	90	45	ND	5.6
Mineral oils	5mg/ℓ	5	0.6	ND	0.5	5	ND	ND	ND	5	0.9	ND	0.6
Copper	3mg/ℓ	3	ND	ND	ND	1	ND	ND	ND	1	ND	ND	ND
Zinc	2mg/ℓ	2	0.2	ND	0.1	1	ND	ND	ND	2	ND	ND	ND
Nitrogen	120mg/ℓ	20	8.7	3.3	5.2	—	—	—	—	120	7.4	1.7	4.3
Phosphorus	16mg/ℓ	2	0.7	0.2	0.5	—	—	—	—	16	2.1	ND	0.9
Cadmium	0.03mg/ℓ	0.03	ND	ND	ND	0.03	ND	ND	ND	0.03	ND	ND	ND
Lead	0.1mg/ℓ	0.1	0.01	ND	0.01	0.1	ND	ND	ND	0.1	ND	ND	ND
Chromium (VI)	0.5mg/ℓ	0.1	0.05	ND	0.05	0.5	ND	ND	ND	0.5	ND	ND	ND
Trichloroethylene	0.3mg/ℓ	0.3	ND	ND	ND	0.3	ND	ND	ND	0.3	ND	ND	ND
Tetrachloroethylene	0.1mg/ℓ	0.1	ND	ND	ND	0.1	ND	ND	ND	0.1	ND	ND	ND
Dichloromethane	0.2mg/ℓ	0.2	ND	ND	ND	0.2	ND	ND	ND	0.2	ND	ND	ND
1,1,1-trichloroethane	3mg/ℓ	3	ND	ND	ND	3	ND	ND	ND	3	ND	ND	ND

*Regulated values are in accordance with the Water Pollution Control Law and local regulations.
*ND ("not detected") indicates a value below the lower limit of detection.
*ND is considered to be the lower limit of detection when calculating the average.
*Other items are confirmed to be below the regulated value.

Overview

Manufacturing facility	Komatsu NTC Ltd. (established in 1945)	Komatsu Cabtec Co., Ltd. (established in 1918)	Komatsu House Ltd. (established in 1971)
Location	Nanto, Toyama Prefecture	Ryuou-cho, Gamou, Shiga Prefecture	Shinshiro, Aichi Prefecture
Main products	Machine tools, laser process machines, wire saws	Cabs for construction equipment	Prefabricated structures for businesses
Site/Green Landscape (1,000 m²)	204/24	42/10	31/1
Number of employees	1,153	375	52
Date of ISO14001 certification acquisition	June 1999	December 2007	March 2002

*The number of employees includes those working for Komatsu affiliates on the premises.
*The number of employees as of the end of March 2015.

Major Performance

Environmental impact

*Refer to the Data on Environmental Impact Resulting from Business Activities for details on the methods used to calculate amounts.
*Total emissions of waste are expressed as a composite of the amount recycled (excluding valuables) and the amount disposed.
*Recycling rate is calculated by dividing the amount recycled (including valuables) by the amount generated (including valuables).
*Total emissions of BOD and COD are calculated by multiplying the average concentration by the amount of wastewater.

Item	Actual value	Item	Actual value	Item	Actual value
Total CO_2 emissions	6,955 t-CO_2	Total CO_2 emissions	3,468 t-CO_2	Total CO_2 emissions	1,088 t-CO_2
NOx total amount	— kg	NOx total amount	15 kg	NOx total amount	13 kg
SOx total amount	0 kg	SOx total amount	1 kg	SOx total amount	38 kg
Total emissions of waste	1,260 t	Total emissions of waste	1,050 t	Total emissions of waste	163 t
Amount recycled	1,251 t	Amount recycled	912 t	Amount recycled	163 t
Recycling rate	99.6 %	Recycling rate	97.4 %	Recycling rate	100 %
BOD emissions	484 kg	BOD emissions	158 kg	BOD emissions	116 kg
COD emissions	— kg	COD emissions	221 kg	COD emissions	217 kg
Wastewater	749,700 m³	Wastewater	79,224 m³	Wastewater	10,727 m³
Output of in-house power generation	66 MWh	Output of in-house power generation	0 MWh	Output of in-house power generation	0 MWh

Energy consumption

*The heat energy conversion factor is calculated in keeping with Greenhouse Gas Emissions Calculation - Reporting Manual, which is based on the act on Promotion of Global Warming Countermeasures.

Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)
Electricity	17,576 MWh	172,077	Electricity	6,936 MWh	67,630	Electricity	810 MWh	8,081
Heavy oil A	0 kℓ	0	Heavy oil A	0 kℓ	0	Heavy oil A	0 kℓ	0
Kerosene	0 kℓ	0	Kerosene	8 kℓ	303	Kerosene	0 kℓ	0
Light oil	25 kℓ	969	Light oil	39 kℓ	1,494	Light oil	12 kℓ	465
Town gas	0 Nkm³	0	Town gas	0 Nkm³	0	Town gas	0 Nkm³	0
LPG	47 t	2,343	LPG	223 t	11,173	LPG	248 t	12,472
Other		0	Other		212	Other		0
Total		175,389	Total		80,811	Total		21,017

Water consumption

Item	Actual value	Item	Actual value	Item	Actual value
Groundwater	744,244 m³	Groundwater	62,400 m³	Groundwater	0 m³
Industrial water	0 m³	Industrial water	0 m³	Industrial water	0 m³
Supply water	15,502 m³	Supply water	16,824 m³	Supply water	10,727 m³
Total	759,746 m³	Total	79,224 m³	Total	10,727 m³

Compliance Conditions to Major Regulations

Air

Item	Unit	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value	Facility	Regulated value	Actual value
Nitrogen oxides (NOx)	ppm	N/A	—	—	N/A	—	—	Small Boiler	130	10
Sulfur oxides (SOx)	—							K-value regulation	—	—
Soot and dust	g/m³N	N/A	—	—	N/A	—	—	Small Boiler	0.1	0.002

*Regulated values are in accordance with the Air Pollution Control Law and local regulations.

Wastewater

Item	Regulated value according to the Water Pollution Control Law	Regulated value	Actual value			Regulated value	Actual value			Regulated value	Actual value		
			Maximum	Minimum	Average		Maximum	Minimum	Average		Maximum	Minimum	Average
pH	5.8~8.6	5.8~8.6	7.9	6.4	6.8	5.8~8.6	6.9	6.7	6.8	5.8~8.6	7.3	5.7	6.8
BOD (Biochemical oxygen demand)	160mg/ℓ	160	1.7	0.5	0.8	20	5.0	ND	2.0	160	33	1.7	10.8
COD (Chemical Oxygen Demand)	160mg/ℓ	—	—	—	—	20	9.5	1.2	2.8	160	42	5.6	20.2
Suspended solids (SS)	200mg/ℓ	200	2.0	ND	1.3	20	8.7	ND	2.4	200	9.0	1	2.4
Mineral oils	5mg/ℓ	5	ND	ND	ND	—	—	—	—	5	4.0	1	1.8
Copper	3mg/ℓ	—	—	—	—	0.1	ND	ND	ND	—	—	—	—
Zinc	2mg/ℓ	—	—	—	—	0.5	0.15	0.01	0.04	—	—	—	—
Nitrogen	120mg/ℓ	—	—	—	—	8	1.7	ND	0.9	120	32	5.2	18.5
Phosphorus	16mg/ℓ	—	—	—	—	0.6	ND	ND	ND	16	4.7	0.4	1.4
Lead	0.1mg/ℓ	—	—	—	—	0.03	ND	ND	ND	—	—	—	—

*Regulated values are in accordance with the Water Pollution Control Law and local regulations.
*ND ("not detected") indicates a value below the lower limit of detection.
*ND is considered to be the lower limit of detection when calculating the average.
*Other items are confirmed to be below the regulated value.

*Data for Komatsu NTC Ltd. include data for the Toyama plant and the Fukuno Plant.

Overview

Manufacturing facility	Komatsu Construction Equipment Sales and Service Japan Ltd. (established in March 1967)	Komatsu Rental Ltd. (established in Oct. 2006)	Komatsu Forklift Japan Ltd. (established in Jan. 1973)
Location	5, Higashiogishima, Kawasaki-ku, Kawasaki-shi, Kanagawa (Head office)	Yokohama, Kanagawa Prefecture (Head office)	Shinagawa, Tokyo metropolitan (Head office)
Activities	Sales and service for construction machinery	Rentals for construction machinery, engineering works construction machine apparatuses, and vehicles	Sales and service for forklift
Number of bases	112	138	136
Number of employees	1,857	905	1,578
Date of ISO14001 certification acquisition	—	—	—

*The number of business sites and employees as of the end of March 2015.

Major Performance

Environmental impact

*Total emissions of waste are expressed as a composite of the amount recycled (including valuables) and the amount disposed.
*Recycling rate is calculated by dividing the amount recycled (including valuables) by the amount generated (including valuables).

Item	Actual value	Item	Actual value	Item	Actual value
Total CO_2 emissions	4,190 t-CO_2	Total CO_2 emissions	2,104 t-CO_2	Total CO_2 emissions	2,581 t-CO_2
Total emissions of waste	3,168 t	Total emissions of waste	2,835 t	Total emissions of waste	5,169 t
Amount recycled	2,810 t	Amount recycled	1,413 t	Amount recycled	4,636 t
Recycling rate	88.7 %	Recycling rate	49.8 %	Recycling rate	89.7 %

Energy consumption

*The heat energy conversion factor is calculated in keeping with Greenhouse Gas Emissions Calculation - Reporting Manual, which is based on the act on Promotion of Global Warming Countermeasures.

Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)	Item	Actual consumption	Converted to calorie equivalents (GJ)
Electricity	7,766 MWh	77,432	Electricity	4,206 MWh	41,929	Electricity	5,219 MWh	52,032
Heavy oil A	55 kℓ	2,131	Heavy oil A	0 kℓ	0	Heavy oil A	0 kℓ	0
Kerosene	334 kℓ	12,258	Kerosene	77 kℓ	2,815	Kerosene	164 kℓ	6,030
Light oil	47 kℓ	1,757	Light oil	103 kℓ	3,879	Light oil	4 kℓ	166
LPG	16 t	792	LPG	5 t	264	LPG	48 t	2,413
Town gas		1,182	Town gas		194	Town gas		247
Total		95,552	Total		49,081	Total		60,887

Environmental Data by Manufacturing Facility outside Japan

The Americas / Europe

		CMO	PMO	NMO	KDB	Hensley	KUK	KOHAG	KMG
Overview	Manufacturing facilities	Komatsu America Corp.			Komatsu do Brasil Ltda.	Hensley Industries, Inc.	Komatsu UK Ltd.	Komatsu Hanomag GmbH	Komatsu Mining Germany GmbH
		Chattanooga Manufacturing Operation	Peoria Manufacturing Operation	Newberry Manufacturing Operation					
	Location	Tennessee, U.S.A.	Illinois, U.S.A.	South Carolina, U.S.A.	São Paulo, Brazil	Texas, U.S.A.	Birtley, United Kingdom	Hannover, Germany	Düsseldorf, Germany
	Main products	Hydraulic excavators, motor graders	Large wheel loaders, large dump trucks	Utility equipment (small construction equipment)	Hydraulic excavators, bulldozers	Buckets, teeth and edges	Hydraulic excavators	Wheel loaders	Ultra-large hydraulic excavators
	Number of employees	1,714			1,075	463	369	489	631
Energy consumption	Electricity (MWh)	7,830	12,566*	2,376	30,554	26,586	5,614	5,215	6,217
	Heavy oil, light oil, et al. (kℓ)	—	64	—	138	77	60	—	49
	Natural gas (thousand m³)	1,133	1,850	278	837	2,463	753	788	1,030
	LPG, et al. (t)	—	21 (LPG)	—	49 (LPG)	72 (LPG)	—	2,286* (District heating)	13 (LPG)
	Total energy consumption (GJ)	120,990	208,869	34,244	357,889	364,949	99,161	85,561	101,421
	CO_2 (t-CO_2)	6,718	4,442	1,909	4,822	20,472	4,442	4,046	4,736
Water consumption (t)		11,912	20,136	1,380	29,532	30,688	9,497	9,688	7,458
Total emissions of waste (t)		682	1,839	27	9,613	18,242	978	1,419	2,060
Date of ISO14001 certification acquisition		April 1998	March 2002	March 2004	January 2002	November 2009	December 1998	September 2000	July 2002

*Electricity of a renewable source is used.

*Unit:MWh

Europe / Asia

		KIM	KFAB	KMR	KI	KUI	BKC	KIPL	KSC
Overview	Manufacturing facilities	Komatsu Italia Manufacturing S.p.A	Komatsu Forest AB	Komatsu Manufacturing Rus, LLC	PT Komatsu Indonesia Tbk	PT Komatsu Undercarriage Indonesia	Bangkok Komatsu Co., Ltd.	Komatsu India Pvt.	Komatsu Shantui Construction Machinery Co., Ltd.
	Location	Este (PD), Italy	Umeå, Sweden	Yaroslavl, Russia	Jakarta, Indonesia	West Java, Indonesia	Chonburi, Thailand	Chennai, India	Shandong, China
	Main products	Utility equipment (small construction equipment)	Forestry equipment	Hydraulic excavators	Hydraulic excavators, bulldozers, wheel loaders	Components for construction equipment, crawler type for construction machinery, pins	Hydraulic excavators, castiron parts	Dump trucks	Hydraulic excavators
	Number of employees	354	561	224	1,075	743	847	316	825
Energy consumption	Electricity (MWh)	3,045	2,495	3,020	24,380	42,319	24,310	917	6,263
	Heavy oil, light oil, et al. (kℓ)	—	29	14	251	—	36	172	53
	Natural gas (thousand m³)	403	—	942	1,461	—	—	—	60
	LPG, et al. (t)	—	1,675* (District heating)	—	179 (LPG)	243 (LPG)	317 (LPG)	—	6,456 (Steam)
	Total energy consumption (GJ)	45,834	28,552	69,668	321,028	470,502	259,698	15,798	94,704
	CO_2 (t-CO_2)	2,060	254	2,926	20,981	32,565	14,051	1,311	5,835
Water consumption (t)		7,774	4,104	97,11	97,510	73,600	61,862	30,065	97,627
Total emissions of waste (t)		1,022	256	778	2,978	4,403	4,849	177	361
Date of ISO14001 certification acquisition		November 2001	October 2003	January 2014	June 2000	October 2008	September 2001	January 2010	December 2000

*Unit:MWh

*Include data for BKI

Asia

		KCCM	KCF	KSD	KUCC
Overview	Manufacturing facilities	Komatsu (Changzhou) Construction Machinery Corp.	Komatsu (Changzhou) Foundry Corp.	Komatsu (Shandong) Construction Machinery Corp.	Komatsu Undercarriage China Corp.
	Location	Jiangsu, China	Jiangsu, China	Shandong, China	Shandong, China
	Main products	Wheel loaders, hydraulic excavators	Iron castings and foundry molds for construction and casting parts	Mini construction equipment, hydraulic equipment and casting parts	Crawler type for construction machinery
	Number of employees	571	277	763	582
Energy consumption	Electricity (MWh)	6,991	24,174	30,224	29,691
	Heavy oil, light oil, et al. (kℓ)	251	58	230	67
	Natural gas (thousand m³)	126	0	0	932
	LPG, et al. (t)	—	1,361 (LPG, LNG, Steam)	4,053 (LPG, LNG, Steam)	932 (LNG)
	Total energy consumption (GJ)	86,161	252,048	382,954	349,208
	CO_2 (t-CO_2)	6,414	19,439	27,002	25,485
Water consumption (t)		36,630	72,216	138,366	80,900
Total emissions of waste (t)		587	9,405	2,932	5,112
Date of ISO14001 certification acquisition		September 2000	December 1999	September 2013	December 2011

Notes 1. All data, except the number of employees, were derived from performances of all manufacturing facilities during FY2014. The number of employees was based on the companies' data as of March 31, 2015.
2. Conversion to CO_2 and total energy consumption were based on statistical data of each region, country, and that of IEA for 2012.
3. Total emissions of waste are expressed as a composite of the amount recycled and the amount disposed.

Environmental Education and Environmental Accounting

Courses in Environmental Education and Training in Japan (excluding general environmental courses)

Komatsu and Komatsu Group manufacturing facilities in Japan (including the Research Division, Field Testing Department)

Organizer	No.	Course name	Target	Participants			
				FY2011	FY2012	FY2013	FY2014
Head Office	1	Advanced environmental education (held every two years)	Environmental specialists (Komatsu and affiliates)	16	—	19	—
	2	Overview of the ISO14000 series	Managers (Komatsu, affiliates, and business associates)	74	72	80	53
	3	Training of internal auditors / Refresher courses	Environmental auditors (Komatsu, affiliates, and business associates)	103	380	177	35
	4	Development and manufacturing (introductory)	Development and manufacturing staff (for second-year employees)	266	248	300	341
	5	Environmental training for manufacturing engineers	Assistant foremen/ foremen/ manufacturing engineers/ students of Komatsu Institute of Technology	158	160	152	242
	6	Training new employees	New Employees (Komatsu and affiliates)	229	354	391	261
	7	Lectures on the environment, experience-oriented education	Komatsu Group employees	1,300	1,316	1,408	1,527
	8	Education to refresh environmental understanding (e-Learning)	Komatsu Group managers and employees	251	153	193	162
	9	Education for biodiversity	Komatsu Group employees	889	252	53	—
	10	Newly appointed manager training	Komatsu Group newly appointed managers	—	—	—	155
Divisions overseeing environmental management at plants	1	Education in the basics of auditing	Managers and employees	183	221	257	100
	2	Overview of the ISO14000 series	Managers and employees	409	183	645	1,464
	3	Training of internal auditors	Environmental auditors	27	38	16	38
	4	Training new employees	New Employees	1,020	940	1,107	700
	5	Regulatory education and personnel exchange	Employees (and other participants)	1,232	1,066	3,274	1,245
	6	Specialist training	Environmental conservation practitioners (persons involved in regulatory affairs, etc.)	2,165	2,561	616	355

In addition to the education and training courses listed above, Komatsu also held courses dealing with environmental issues intended for sales agents.

Number of Persons Having Environment-related Certificate

Komatsu and Komatsu Group manufacturing facilities in Japan (including the Research Division, Field Testing Department)

Certificate name	Number of persons with certificate*			
	FY2011	FY2012	FY2013	FY2014
Pollution control administrators	241 (33)	230 (33)	241 (33)	249 (33)
Energy administrators	45 (10)	45 (10)	45 (10)	50 (10)
Environmental management system auditors	6	4	5	4

*Figures in parentheses indicate the number of officers required.

Effects on Society*1

Environmental impact reduction effects	Tangible benefits
●Environmental impact reduction resulting from on-site recycling methods ●Environmental impact reduction resulting from product operation ●Waste components reduction resulting from "Reman" business	●Reduction of expenses for processing waste materials ●Savings in operating and maintenance costs ●Reduction of repair costs

*1: Concerning the effects on society derived from product use by customers, the major items of qualitative information are shown here as a reference.

Environmental Costs (Investments and expenses)

Komatsu and Komatsu Group manufacturing facilities in Japan (including the Research Division)

Category	Investment			Expenses		
	FY2013	FY2014		FY2013	FY2014	
	Investment*1 (millions of yen)	Investment*1 (millions of yen)	Contents	Expenses*1 (millions of yen)	Expenses*1 (millions of yen)	Contents
1. Business area cost	2,895	1,308		3,673	2,997	
① Pollution prevention cost	1,061	376	●Investment for installation and conversion of pollution mitigation/ prevention facilities installation of air pollution control equipment, etc.	880	782	●Cost of maintaining equipment for mitigation/ prevention of air and water pollution and for noise and vibration prevention (labor and depreciation costs)
② Global environmental conservation cost	1,681	899	●Investment for implementing energy conservation measures installation of energy-saving air conditioners, heat-treating furnace energy saving facilities, etc.	1,779	1,348	●Cost of maintaining energy conservation facilities, such as cogeneration systems (labor and depreciation costs)
③ Resource circulation cost	153	33	●Investment for reducing the volume of waste materials (recycling facilities, etc.)	1,014	867	●Waste material processing cost
2. Upstream/downstream cost	0	9	●Additional investment needed to provide eco-friendly product services	197	220	●Reduction of the environmental impact of mass-production units
3. Administration cost	160	97	●Investment for beautifying manufacturing sites	753	838	●Cost of maintaining environmental management systems ●Cost of creating green spaces and beautifying manufacturing sites
4. R&D cost	230	303	●Investment in research facilities for reduction of environmental impact	21,112	21,527	●Cost of R&D activities to reduce the environmental impact of products ●Cost of R&D activities to develop environmentally-friendly construction equipment
5. Social activity cost	0	0		15	13	
6. Environmental remediation cost	0	0		884	253	●Cost of conducting surveys and remedial countermeasures related to soil and groundwater contamination ●PCB disposal costs
Total	3,285	1,716		26,635	25,847	

*1: All figures are rounded off to the nearest million yen.

Environmental Effects

Komatsu and Komatsu Group manufacturing facilities in Japan (including the Research Division)

Environmental impact reduction effects		
Items of environmental impact	Reduction amount (t/year)	Rate of year-on-year changes (%)
CO_2 emissions	-10,802	-5.3
Water consumption	-693,138	-18.7
Waste materials generation	-1,757	-10.2

Komatsu and Komatsu Group manufacturing facilities in Japan (including the Research Division)

Economic benefits				
Tangible benefits			Avoidance benefits of environmental risks*2	Contribution to profits*2
Type	Monetary value*1 (millions of yen)	Major activities		
Energy conservation	620	●Energy conversion, etc.	●There were no accidents or pollution in Japan during FY2014 that led to violations of the law. ●No litigation costs were required in Japan during FY2014.	●Proceeds from mobile recycling equipment ●Proceeds from value added due to reduced environmental impact of products (engines)
Resource conservation	0			
Waste materials reduction	468	●Promotion of recycling through thoroughgoing sorting		
Gain on sale of valuables	442	●Reuse of furnace slag for roadbed materials		
Other	4			
Total	1,534			

*1: Figures are rounded off to the nearest million yen.
*2: Komatsu used statements instead of numeral figures to describe the "Avoidance benefits of environmental risks" and the "Contribution to profits." The company will further develop concepts and ways to understand effects in these categories. The sales amounts of businesses for content presented in "Contributions to profits" in FY2014 are as follows:
●Mobile recycling equipment business: 1.3billion yen
●Engine business: 148.4 billion yen (Total for intra-Group sales from the Engine Business Division)

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