Material Issue 4 — Initiatives to Conserve the Global Environment

KDDI's Approach

Recognition of Social Issue

In these times when global warming is evident, along with measures to mitigate global warming by reducing greenhouse gas emissions, people are asking about adaptations to global warming where nature and society are changing in response to the effect on the global environment. In 2015, the Paris Agreement was established, calling for a global effort to hold the global temperature rise since the industrial revolution to less than 2℃ and to strive to limit the increase to less than 1.5℃. For companies, making simultaneous efforts to mitigate and adapt to this issue is important.

KDDI's Risk and Opportunity

KDDI is aware of the risk of climate change and large-scale natural disasters, and is taking the opportunity to mitigate and adapt to these risk. Global warming increases the risk of natural disasters, which greatly increases the chance of damage or disruption to communications equipment and interruption of communications, thereby hindering the provision of stable information communications services. Meanwhile, we are taking the opportunity to provide ICT services such as those that use equipment with a lesser environmental impact, and those that contribute to the development of services and solutions that reduce the movement of customers.

KDDI's Management

KDDI has established the KDDI GREEN PLAN 2012-2016 Medium-term Environmental Conservation Plan based on the KDDI Environmental Charter, and the KDDI Action Guidelines on the Preservation of Biodiversity based on this Medium-term Environmental Conservation Plan. All but one of the targets in the KDDI GREEN PLAN 2012-2016 was achieved. Since FY2017, KDDI has established a new KDDI GREEN PLAN 2017-2030 based on the previous results, and will pursue efforts to make use of ICT services in Climate Action, Creating a Recycling-Oriented Society, and Conservation of Biodiversity.

■ Policies

🔍 Link Page_100   KDDI Environmental Charter

🔍 Link Page_114   KDDI Action Guidelines on the Preservation of Biodiversity

Key Performance Indicators (KPI)

■ KDDI GREEN PLAN 2012-2016

	Targets	Results
Amount of power consumption (compared to when energy conservation measures are not taken)	30% constraint	41.8% constraint
Amount of power consumption per subscriber (compared to FY2011)	15% reduction	38% reduction
Number of Tribrid Base Stations established	100 stations (FY2012 Goal)	100 stations
Achieve zero emissions for retired telecommunications facilities (Zero emissions is defined as having a final disposal rate of 1% or less.)	Final disposal rate of 1% or less	Final disposal rate of 0.4%
Recycling rate of used mobile phone material	Over 99.8%	99.8%
Recycling rate of general waste material for KDDI buildings and headquarters	Over 90%	83.6%

The Main Target Stakeholders and the Issues

【Issues】
・Climate Action
・Creating a Recycling-Oriented Society
・Conservation of Biodiversity

Material Issue 4 Initiatives to Conserve the Global Environment

Future Issues

- 7% reduction in CO_2 emissions in FY2030 compared to FY2013 for KDDI (in Japan, non-consolidated)
- Upgrading to highly energy-efficient data centers in Japan and abroad
- Contributions to reductions in society's CO_2 emissions by providing KDDI's information and communication technology (ICT) services
- Maintain zero emissions from retired telecommunication facilities
- Maintain material recycling rate of 99.8% for used mobile phones
- Active promotion of initiatives using ICTs to conserve ecosystems

Initiatives Related to This Material Issue

Link Page_34   Environmental Conservation Plan

Link Page_100   Environmental Management

Link Page_108   Environmental Performance

Material Issue 4 Initiatives to Conserve the Global Environment

Highlights   Environmental Conservation Plan

Policy   KDDI

Third Medium-term Environmental Conservation Plan – KDDI GREEN PLAN 2012-2016

FY2016 was the final year of the KDDI GREEN PLAN 2012-2016 Third Medium-term Environmental Conservation Plan, which KDDI established in FY2012. This plan took three material issues – Low-carbon society, Recycling-oriented society, and Biodiversity – and established concrete targets for each. To achieve these targets, KDDI promoted the 3G – Green of ICT, Green by ICT, and Green Road Project.

Activity and Results   KDDI

Summary of Third Medium-term Environmental Conservation Plan

KDDI GREEN PLAN 2012-2016 set seven targets for three material issues, and achieved six of the targets (all except the target to achieve a material recycling ratio for general waste of 90% or more at KDDI-owned buildings and in the headquarters building).

Because the recycling of general waste material is dependent on equipment specifications of processors and other conditions of the processing area, KDDI was unable to achieve this target.

■ Results of Third Medium-term Environmental Conservation Plan

	Targets	Results	Evaluation
Low-carbon society	(1) By FY2016, reduce electric power consumption by 30%, compared with the level if energy-saving measures had not been implemented.	41.8% constraint	○
	(2) By FY2016, lower electric power consumption per subscriber by 15%, compared with FY2011.	38% reduction	○
	(3) By the end of FY2012, increase the number of Tribrid Base Stations to 100.	100 stations	○
Recycling-oriented society	(1) Achieve zero emissions for retired telecommunications facilities.*	Final disposal rate of 0.4%	○
	(2) Achieve material recycling ratio of 99.8% or more for used mobile phone handsets.	99.8%	○
	(3) Achieve a material recycling ratio for general waste of 90% or more at KDDI-owned buildings and in the headquarters building.	83.6%	×
Biodiversity	(1) Pursue activities based on our action guidelines for preservation of biodiversity.	Achieved	○

* Zero emissions is defined as having a final disposal rate of 1% or less.

Material Issue 4　Initiatives to Conserve the Global Environment

Highlights　Environmental Conservation Plan

Policy　　　　　　　　　　　　　　　　KDDI

Formulation of the Fourth Environmental Conservation Plan

KDDI has formulated a new Environmental Conservation Plan, titled KDDI GREEN PLAN 2017-2030, which is based on the results of the Third Medium-term Environmental Conservation Plan. This plan adopts Climate Action, Creating a Recycling-Oriented Society, and Conservation of Biodiversity as the three material issues, and sets targets such as a 7% reduction in CO_2 emissions amounts in FY2030, compared to FY2013 for KDDI(in Japan, non-consolidated). In striving to achieve the targets of this plan, KDDI aims to contribute to further global environmental conservation.

Climate Action
- 7% reduction in CO_2 emissions in FY2030 compared to FY2013 for KDDI (in Japan, non-consolidated) [Note]
- Upgrading to highly energy-efficient data centers in Japan and abroad
- Contributions to reductions in society's CO_2 emissions by providing KDDI's information and communication technology (ICT) services

Note: KDDI's target emission reduction of 7% compared to FY2013 matches the 7% industry target in Japan's national Climate Action Plan. In order to achieve this target, KDDI will make use of various approaches to reduce emissions, including the use of renewable energy.

Creating a Recycling-Oriented Society
- Maintain zero emissions from retired telecommunication facilities [Note]
- Maintain material recycling rate of 99.8% for used mobile phones

Note: Zero emissions are defined as a final disposal rate of 1% or less.

Conservation of Biodiversity
- Active promotion of initiatives using ICTs to conserve ecosystems

---

Overview of KDDI Green Plan 2017-2030

(1) Climate Action
- 7% reduction in CO_2 in FY2030 compared to FY2013 for KDDI (in Japan, non-consolidated)
- Upgrading to highly energy-efficient data centers in Japan and abroad
- Contributions to reductions in society's CO_2 emissions by providing KDDI's information and communication technology (ICT) services

(2) Creating a Recycling-Oriented Society
- Maintain zero emissions* from retired telecommunication facilities
- Maintain material recycling rate of 99.8% for used mobile phones

(3) Conservation of Biodiversity
- Active promotion of initiatives using ICTs to conserve ecosystems

* Zero emissions are defined as a final disposal rate of 1% or less.

Environmental Management

KDDI's Approach (Environment)

KDDI's attitude toward environmental conservation is defined in the KDDI Environmental Charter, which regulates the Basic Principle (Approach to Global Environmental Problems), which is its highest concept, and the Code of Conduct for setting the direction of its concrete initiatives.

KDDI Environmental Charter

Manifesto

KDDI Group recognizes the importance of fulfilling its duty as a responsible global corporate citizen to conserve and protect the Earth's irreplaceable environment so that it can be inherited by future generations. We are committed to pursuing our business in eco-conscious ways, through programs of activities that span the entire company.

Scope of Reports of Environmental Information

Action Guideline

1. We will strive to evaluate the quantitative impact of our activities as a company on the global environment, implement effective environmental protection programs and continuously improve these programs. Specifically, we will:

   (1) Develop and operate environmental management systems necessary to make continuous improvements in such environmental fields as energy conservation, resource conservation and waste reduction.

   (2) Comply with environmental laws, ordinances and other regulations and requirements. In particular, we will promote measures to reduce our electricity consumption from the perspective of preventing global warming.

   (3) Promote communication through the appropriate disclosure of information.

2. We will strive to develop and offer services that reduce environmental impact through the use of next-generation information technologies.

3. We will contribute to the development of a recycling-oriented society by promoting measures to mitigate and reduce the environmental impact of activities that necessarily entail mass consumption, such as the supply of mobile handsets.

4. We will promote corporate purchasing policies that favor eco-friendly products and equipment.

5. As a responsible corporate citizen, we will contribute to society and local communities through activities that promote an affluent society that is in harmony with the environment.

■ Message from Executive Officer

In recent years, natural disasters caused by climate change are occurring frequently, bringing with them immense damage. The Paris Agreement and Sustainable Development Goals (SDGs) were adopted based on these conditions, both setting long-term worldwide objectives in the environmental field, and changing the direction of the world toward becoming a "Zero CO_2 Emissions Society." In 2017, KDDI has also established KDDI GREEN PLAN 2017-2030, a long-term plan to extend over 14 years. The utilization of ICT reduces the CO_2 in society and contributes to the suppression of climate change, but ICT itself harbors the contradiction of increasing environmental impact. In our plan, KDDI has set objectives to solve these problems and reduce our own CO_2 emissions by increasing the energy efficiency of our telecommunications facilities and devices and utilizing renewable energy. We are further strengthening our initiatives from the position of fulfilling our responsibility to achieve this plan.

Akira Dobashi
Executive Officer, CSR
Environmental Sustainability
General Manager
General Administration &
Human Resources Division

Environmental Management

Policy KDDI Group

Risks and Opportunities from Climate Change

According to the Intergovernmental Panel on Climate Change (IPCC), when it comes to global warming, there is no room for doubt. They consider it extremely likely that influences from human activities such as economic growth and an increasing population form the main cause for global warming.

KDDI considers the risks from climate change to be important management challenges, and we believe there are opportunities to make adjustments to reduce climate change by lessening existing influences through "moderation" in order to suppress greenhouse gas emissions.

■ Risks and Opportunities from Regulations

Each country and region has regulations and measures that influence the business activities of corporations, such as energy-saving standards, carbon taxes, and emissions negotiations. KDDI considers such regulations and measures as potential risks to business continuity and growth. We also consider it an opportunity for business growth, and in order to comply with these regulations, we are building environmentally-friendly bases, as well as providing services that save energy and reduce society's environmental impact through the use of ICT.

■ Risks and Opportunities from Physical Influences

Global warming has caused typhoons to grow in size and increase in precipitation, bringing damage to various locations. These kinds of natural disasters also influence the telecommunications facilities of KDDI, and we perceive them as risks to business continuity. The demand for measures against such natural disasters is increasing globally. KDDI is working to expand our business by spreading anti-disaster measures that use ICT services such as monitoring systems and disaster-prevention systems to prepare for disasters.

■ Other Risks and Opportunities

A lack of response to climate change can lead to business continuity risks such as a decline in market competitiveness and reliance from stakeholders. KDDI has set long-term objectives to suppress climate change, and we believe that providing services that contribute to the reduction of environmental impact leads to business expansion and can also contribute to SDG Goal 7 (Affordable and clean energy).

Policy KDDI

Fourth Environmental Conservation Plan
KDDI GREEN PLAN 2017-2030

KDDI has established the KDDI GREEN PLAN 2017-2030, a new environmental conservation plan. This is a long-term plan extending to FY2030, based on the long-term Paris Agreement objectives adopted at COP21 in 2015 and the government's Plan for Global Warming Countermeasures, with the objective of reducing KDDI's CO_2 emissions by 7% in comparison to FY2013. With the aim of achieving these objectives, we are making efforts to reduce CO_2 emissions by utilizing renewable energy and other various methods.

With this plan, in addition to making performance reports in each fiscal year, we will consider revisions and reviews when necessary, which will then be reflected in the plan.

Overview of KDDI Green Plan 2017-2030

(1) Climate Action
- 7% reduction in CO_2 in FY2030 compared to FY2013 for KDDI (in Japan, non-consolidated)
- Upgrading to highly energy-efficient data centers in Japan and abroad
- Contributions to reductions in society's CO_2 emissions by providing KDDI's information and communication technology (ICT) services

(2) Creating a Recycling-Oriented Society
- Maintain zero emissions* from retired telecommunication facilities
- Maintain material recycling rate of 99.8% for used mobile phones

(3) Conservation of Biodiversity
- Active promotion of initiatives using ICTs to conserve ecosystems

* Zero emissions are defined as a final disposal rate of 1% or less.

Climate Action
- 7% reduction in CO_2 emissions in FY2030 compared to FY2013 for KDDI (in Japan, non-consolidated) [Note]
- Upgrading to highly energy-efficient data centers in Japan and abroad
- Contributions to reductions in society's CO_2 emissions by providing KDDI's information and communication technology (ICT) services
Note: KDDI's target emission reduction of 7% compared to FY2013 matches the 7% industry target in Japan's national Climate Action Plan. In order to achieve this target, KDDI will make use of various approaches to reduce emissions, including the use of renewable energy.

Creating a Recycling-Oriented Society
- Maintain zero emissions from retired telecommunication facilities [Note]
- Maintain material recycling rate of 99.8% for used mobile phones
Note: Zero emissions are defined as a final disposal rate of 1% or less.

Conservation of Biodiversity
- Active promotion of initiatives using ICTs to conserve ecosystems

Environmental Management

System **KDDI Group**

Environmental Management Regime

■ Environmental Management System

In order to clearly state our position on promoting CSR and the environment with management, the CSR Committee was established in the CSR & Environment Management Department to discuss important issues on the environment lead by the General Manager of the Corporate Sector with the CSR & Environment Management Department as the secretariat. Through the Environmental Subcommittee headed by the executive officer in charge of CSR as chairman and the CSR & Environment Management Department as the secretariat and attended by the managers of each division and group company that have acquired ISO14001 certification, the deliberation results will be reflected in each division and associated company, as well as in the objectives of each organization.

In the KDDI Group, the CSR & Environment Management Department takes a role of promotion, cooperating with related divisions to promote a group-wide system of management.

■ Environmental Management System Construction

KDDI Group has formed the Environmental Subcommittee, which serves as the center for the Environmental Management System (EMS). This subcommittee is comprised of a system that centrally manages the status of EMS operations carried out by each division, branch, group company, and related organizations, and cooperates with each group company to promote efficient environmental conservation activities throughout the group.

KDDI Group's Environmental Management Regime
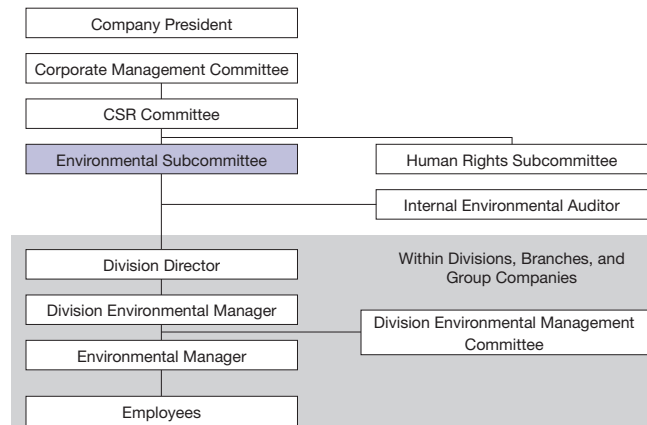
CSR Promotion Framework
Link Page_09

System **KDDI Group**

Internal Environmental Audits

The KDDI Group holds internal audits as an ISO14001 requirement, and appoints auditors from each branch in order to ensure objectivity and independence, with a focus on the CSR & Environment Management Department.

In FY2016, 57 divisions and 64 offices in KDDI and group companies were audited. Referring to internal environmental audit results in FY2015, emphasis was placed on (1) compliance, (2) response to regulations revised in 2015, (3) EMS operation management, and (4) objective management, and self-checks using a check sheet were held in conjunction with face-to-face audits executed by auditors. There were 0 indicated matters, 161 matters requiring revision, with approximately 60% in operations management. Due to the decline in matters requiring revision or suggestion in comparison to the previous fiscal year, we believe that EMS is becoming firmly established.

System **KDDI Group**

Compliance with Environmental Regulations

■ Compliance with Various Environmental Management Regulations

In order to prevent or reduce damage to the environment from our business activities, KDDI strictly complies with environmental regulations, as well as with regulations of various local governments and agreements made with regional authorities. There were no environmental regulation violations in FY2016.

KDDI Group ISO14001 Certification Acquisition (certifying authority: Japan Quality Assurance Organization (JQA))

As of the end of March 2017: KDDI CORPORATION, Okinawa Cellular Telephone Company, KDDI Evolva Inc., KDDI Evolva Okinawa Corporation, KDDI Research, Inc., KDDI Technology Corporation, KDDI Engineering Corporation, mediba inc., Japan Telecommunication Engineering Service Co., Ltd., KDDI Group Foundation, KDDI Health Insurance Union, KDDI Pension Fund, KDDI Web Communications Inc., KDDI Challenged Corporation, KDDI Foundation, TELEHOUSE International Corporation of Europe Ltd., Chubu Telecommunications Co.,Inc., WebMoney Corporation, KDDI MATOMETE OFFICE CORPORATION, KDDI MATOMETE OFFICE HIGASHINIHON CORPORATION, KDDI MATOMETE OFFICE CHUBU CORPORATION, KDDI MATOMETE OFFICE KANSAI CORPORATION, KDDI MATOMETE OFFICE NISHINIHON CORPORATION, Kokusai Cable Ship Co.,Ltd.

Total: acquired by 24 companies and groups

Environmental Management

<Related Regulations>

・Act on the Rational Use of Energy
・Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging
・Waste Management and Public Cleansing Act
・Act on Rationalized Use and Proper Management of Fluorocarbons
・Law Concerning Special Measures for Promotion of Proper Treatment of PCB Wastes (PCB Special Measures Law)

■ Appropriate Processing of PCB-containing Apparatus

KDDI promotes the disposal of components that previously included high-concentration PCB. In FY2016, disposal could not be performed because the disposal processors were not fully prepared to receive the large disposal items. We will continue the disposal of remaining high-concentration PCB devices as soon as disposal processors that can accept them are in place. We are also scheduling the disposal of low-concentration PCB devices.

Activity   KDDI

Acquiring the Eco ICT Mark

KDDI acquired the Eco ICT Mark established by the ICT Ecology Guidelines Council* as part of our endeavor toward environmental consideration and the reduction of our environmental impact.

* Council founded for the purpose of establishing energy-saving indices to be referenced when procuring ICT devices and data centers

Activity and Results   KDDI Group

Education and Infusion for Employees

KDDI believes that increase in environmental awareness and promotion of environmental understanding are needed in order to vitalize environmental activities, and we provide environmental education for all employees.

Initiatives	Target	Details/Performance
Beginning of period information session	KDDI Group Environmental ISO Representatives	Theme: KDDI's EMS, environmental regulations, details of new regulation revisions 17 companies, 56 participants
Training of inside auditors		Study session to train 4 auditors
E-learning	All Employees of KDDI Group	Theme: Biodiversity 12,430 participants (90.9% of the target)

Policy   KDDI

Promoting Green Procurement

KDDI formulated the KDDI Green Procurement Guidelines to promote purchasing of more environment-friendly products, and procure business equipment (communications devices, air conditioning systems, and power supply facilities) with high energy-saving performance. The Guidelines promote procurement activities for the devices defined in the new ICT Ecology Guidelines specified by the ICT Ecology Guideline Council.

Furthermore, through the CSR procurement survey for business partners we have run since FY2015, we have confirmed our business partners' status of response toward environmental management.

	Link Website	State of Compliance with Green Purchasing Law (Japanese)
	Link Website	List of Compatible Models (Japanese)
	Link Website	Product Line-Up
	Link Page_76	Supply Chain Management

System   KDDI

Cooperation of Business Partners

KDDI is continuing cooperation with our business partners to make our base stations lighter and more energy efficient. We have worked with our base station equipment suppliers to develop equipment that is lighter and consumes less power (approximately 45% lighter and approximately 22% less power consumption than before), and have continued to introduce this equipment since FY2015.

KDDI will continue to promote approaches to business partners and work with suppliers ti reduce its environmental impact.

Environmental Management

Performance   KDDI

Self-evaluation Check List for CO_2 Emission Reduction Efforts by Telecommunication Operators

		Evaluation item	If implemented, description of actions taken
Formulation of voluntary environmental action plan, etc.	1	Has the organization formulated a voluntary environmental action plan that describes actions for reducing CO_2 emissions? Has the plan been implemented?	KDDI has formulated a Medium-term Environmental Conservation Plan based on the KDDI Environmental Charter, and the plan is being implemented. 🔍 **Link** Page_100 KDDI Environmental Charter
	2	Does the voluntary environmental action plan include specific actions for which quantitative goals for CO_2 emission reduction are stated?	The Third Medium-term Environmental Conservation Plan (KDDI GREEN PLAN 2012-2016) sets the following targets. ・ 30% constraint in energy use estimated for FY2016 compared with not taking any energy-saving measures ・ 15% reduction in energy use per subscriber estimated for FY2016 compared with FY2011 ・ Expansion of Tribrid Base Stations to 100 by March 31, 2012 (Target achieved). ・ Achieve zero emissions for retired telecommunications facilities (*Zero emissions is defined as having a final disposal rate of 1% or less) ・ Recycling rate of used mobile phone material over 99.8% ・ Recycling rate of general waste material for KDDI buildings and headquarters over 90% 🔍 **Link** Page_34 Third Medium-term Environmental Conservation Plan – KDDI GREEN PLAN 2012-2016
	3	Does the organization put efforts into informing and enlightening employees about environmental conservation actions to improve their environmental awareness, as well as publishing the organization's voluntary environmental action plan internally and externally?	・ The Medium-term Environmental Conservation Plan is published inside and outside the company by means of the Integrated Report (Detailed ESG Version) and the corporate website. ・ KDDI also provides e-learning program and internal seminars for employees whenever necessary. ・ Integrated Report (Detailed ESG Version) 🔍 **Link** Page_103 Education and Infusion for Employees
	4	Are the implementation statuses of and the targeted achievements for actions given in the voluntary environmental action plan disclosed to the public?	The attainment statuses of trend targets toward the achievement of the Medium-term Environmental Conservation Plan are published in the Integrated Report (Detailed ESG Version) and the corporate website. 🔍 **Link** Page_32 Material Issue 4: Initiatives to Conserve the Global Environment
Eco-efforts in procurement	5	Has the organization formulated, with a view to energy-saving, procurement standards for ICT devices and data centers? Does procurement conform to the established standards?	KDDI conducts its procurement activities in accordance with the KDDI Green Procurement Guidelines. 🔍 **Link** Page_103 Promoting Green Procurement
	6	Does the organization procure office supplies and other goods as well as logistics service in an energy-saving manner (Green purchasing, etc.)?	KDDI promotes green purchasing under the KDDI CSR Procurement Policy. 🔍 **Link** Page_76 Supply Chain Management

Environmental Management

		Evaluation item	If implemented, description of actions taken
Promotional system for eco-efforts	7	Is there an assigned group or personnel in charge of CO_2 emission reduction actions?	The CSR & Environment Management Department is established as the internal organization responsible for CO_2 emission reduction efforts.
	8	Does the organization have a system for appropriately monitoring and checking the status of implementation and the achievement level of targets given in the voluntary environmental action plan as well as for conducting internal audits?	KDDI monitors the status of implementation and the achievement level and conducts inspections and improvements through internal audits, both of which are realized through the ISO Environmental Management System.
Other eco-efforts	9	Does the organization undertake eco-friendly actions beside energy- saving efforts?	The promotion of 3R (Reduce, Reuse, Recycle) is also a core KDDI challenge, and the following goals are pursued: ・Promotion of recycling communications equipment; Improvements in recovering resources; ・Promotion of recycling used mobile phones; Improvements in recovering resources ・Reduction in paper resource use via"Green by ICT" (Bill on WEB, KDDI paperless fax service, slimmed-down au mobile phone manual, compact individual packaging, etc.); ・Reduction in office waste and improvements in recovering resources. KDDI is also engaged in improving the supply chain through Scope 3 and LCA efforts, and support for Biodiversity. Link Page_111 Environmental Performance (Low-Carbon society) Link Page_112 Environmental Performance (Recycling-Oriented society) Link Page_114 Environmental Performance (Biodiversity)
	10	Does the organization perform activities for environmental conservation in collaboration with the community?	KDDI implements forest conservation activities in which employees and customers work together across the country. Link Page_115 Environmental Conservation Activities by Employees

Environmental Management

Policy | KDDI Group

Environmental Accounting

KDDI has implemented environmental accounting since 2010 as a powerful system to quantitatively evaluate environmental activity costs and effects.

We analyze calculated costs and effects and utilize them toward more efficient environmental management.

[Scope of Environmental Accounting]

・Period: April 1, 2016 to March 31, 2017

・Scope of calculation: 30 KDDI Group companies*

・Calculation standard: Ministry of Environment "Environmental Accounting Guidelines 2005" and "KDDI Environmental Accounting Guidelines"

Environmental Protection Costs		Transaction Examples	FY2015 (Millions of Yen)		FY2016 (Millions of Yen)		Change from Previous Year (Millions of Yen)	
			Investment	Cost	Investment	Cost	Investment	Cost
Business area costs	Pollution prevention costs	Pollution prevention costs stipulated by law, costs for proper disposal of PCB, etc.	0	43	0	0	0	△43
	Global environmental protection costs	Power-saving wireless equipment for mobile base stations (Investment amount is calculated proportionally based on the power-saving effect.)	9,512	23,202	2,509	23,764	△7,002	562
	Resource recycling costs	Reduction of paper resources, processing and disposal of waste products	0	560	0	823	0	263
Upstream/downstream costs		Collection, recycling, and reuse of merchandise and products	0	1,281	0	1,396	0	115
Administrative costs		Operation and updating of environmental ISO standards, disclosure of environmental information	0	134	0	122	0	△12
R&D costs		R&D of technology, equipment, handsets, products, services, and other items conducive to reducing the environmental burden	0	340	0	108	0	△232
Social activity costs		Donations and support for forest conservation activities and to environmental protection groups	0	56	0	50	0	△6
Environmental damage restoration costs		Measures for prevention of asbestos spraying, restoration of polluted soil	0	0	0	0	0	0
Total			9,512	25,616	2,509	26,263	△7,002	647

* KDDI Web Communications Inc., mediba Inc., KDDI Research, Inc., KDDI Engineering Corporation, KDDI Evolva Okinawa Corporation, KDDI Challenged Corporation, KDDI Technology Corporation, WebMoney Corporation, KDDI MATOMETE OFFICE CORPORATION, KDDI MATOMETE OFFICE HIGASHINIHON CORPORATION, KDDI MATOMETE OFFICE CHUBU CORPORATION, KDDI MATOMETE OFFICE KANSAI CORPORATION, KDDI MATOMETE OFFICE NISHINIHON CORPORATION, Okinawa Cellular Telephone Company, KDDI Evolva Inc., Japan Telecommunication Engineering Service Co., Ltd., Chubu Telecommunications Co., Inc., Kokusai Cable Ship Co., Ltd, TELEHOUSE International Corp. of Europe Ltd. (UK), TELEHOUSE International Corp. of Europe Ltd. (France), TELEHOUSE International Corp. of America. (US), TELEHOUSE Deutschland GmbH (Frankfurt), HKCOLO.NET LTD. (Hong Kong), TELEHOUSE Beijing Co., Ltd (Beijing), TELEHOUSE BEIJING BDA Co., Ltd (Beijing), TELEHOUSE Shanghai Co., Ltd (Shanghai), KDDI Korea Corporation (Seoul), KDDI Singapore Pte Ltd. (Singapore), TELEHOUSE International Corp. of Vietnam (Hanoi)

| Disclosure of CSR Information | Top Message | KDDI Business and Strategies | KDDI's CSR | KDDI Code of Business Conduct | CSR Promotion Framework | Stakeholder Engagement | Four Material CSR Issues | Material Issues - Highlights | CSR Initiatives Through Business | CSR Initiatives Supporting Operations | External Assessment | CSR Data |

Environmental Management

1. Environmental Protection Benefits (Physical)		Indicator Category (Unit)	FY2015	FY2016	Change from Previous Year
(1) Benefits derived from business area	1) Benefits related to resources invested in business activities	Power consumption (MWh)	2,438,952	2,440,582	1,629
		Paper usage (t)	12,047	9,800	△2,247
		Paper reduced by Bill on WEB (t)	3,834	3,892	58
	2) Benefits related to environmental burden and waste products discharged from business activities	Greenhouse gas emissions (t-CO_2) *	1,392,753	1,277,094	△115,659
		Industrial waste emissions related to telecommunications facilities and buildings (t)	5,298	5,820	521
(2) Benefits derived from upstream/downstream costs	Benefits related to goods and services produced by business activities	Number of used mobile phones and other devices collected (10,000 units)	348	359	11

2. Economic Benefits of Environmental Protection Measures (Yen)	Substantive Benefits (Major Effects)	FY2015 (Millions of yen)	FY2016 (Millions of yen)	Change from Previous Year
Revenues	Revenues from sales through disposal of telecommunications facilities and buildings	333	150	△182
Costs reductions	Reduction in energy costs by adopting the use of low-pollution vehicles	12	15	3
	Reduction in costs of new purchases by reusing disposed of telecommunications facilities	3,879	4,083	203
Total		4,224	4,248	24

* Emission coefficient used per telecommunications operator

Environmental Performance

Activity and Results

KDDI

Environmental Impact of Business Activities

Most input energy is electric power for telecommunications facilities. Heavy oil, light oil, heating oil and other fuels are input when test running emergency power generation facilities. Most water usage is generated by everyday business activities in the offices. Greenhouse gas emissions were calculated in three areas, Scope 1, Scope 2 and Scope 3 (all items), and third-party verification was received.

Environmental Impact of FY2016 Business Activities (Coverage: KDDI)

- Resource
- Energy

- Power consumption 1,915,383MWh
  For telecommunications facilities 1,895,367 MWh
  Offices 20,017 MWh
- Paper usage 9,691 t
- Water usage 1,223 thousand m³

- Fuel consumption 338 kℓ[1]
  Heavy oil 138 kℓ
  Light oil 6 kℓ
  Heating oil 195 kℓ

- Power

Input

Manufacturers — Delivery → Telecommunications facilities / Offices — Sale → Customers

Designing The Future KDDI

Use

Emissions

- Industrial waste 643 t
- Greenhouse gas emissions (CO_2 equivalent) (Scope 1)[2]
  Telecommunications facilities fuel 5,357 t
- Greenhouse gas emissions (CO_2 equivalent) (Scope 2)[2]
  Telecommunications facilities power 1,051,928 t
  Office consumed power 11,109 t
- Greenhouse gas emissions (CO_2 equivalent) (Scope 3)[3]
  Supply chain emissions 4,697,389 t

- Industrial waste

Recycling resources

Recycling

- Number of collected mobile phones
  Handsets 1,480,000
  Batteries 1,460,000
  Chargers 660,000
- Amount of collected waste paper and similar materials 1,205 t

Collections of mobile phones and waste paper

[1] Used for air conditioning of telecommunications facilities and for emergency generators.
[2] CO_2 emissions are calculated using a conversion coefficient of 0.555kg-CO_2/kWh for the power consumption and the emission coefficients for fuel consumption applied to the calculation, reporting, and disclosure systems based on the "Act on Promotion of Global Warming Countermeasures."
[3] CO_2 emissions are calculated using emission factors indicated in the Ministry of the Environment's "Overview of Basic Conversion Guidelines Related to the Calculation of the Greenhouse Effect through the Supply Chain."

Environmental Performance

Activity and Results   KDDI

Understanding Environmental Impact

In order to quantitatively understand and share information about our environmental impact, KDDI has calculated our supply chain greenhouse gas emissions (Scopes 1, 2, and 3) in adherence with various guidelines [1] since FY2012.

In our FY2016 business activities, Scope 3 accounted for 81.47% of total greenhouse gas emissions (Scopes 1, 2, and 3). When viewed by category, the percentages of Categories 1 and 2 have continued to grow since the previous fiscal year. Additionally, in order to ensure the reliability of calculations, the results of Scopes 1 and 2 were subjected to independent third party verification by Lloyd's Register Quality Assurance Limited, while the results of Scope 3 were subjected to third party verification by Waseda Environmental Institute Co.,Ltd.

KDDI also conducts life-cycle assessments (LCA) to evaluate the environmental impact by calculating CO_2 emissions in every step in the life of its products and services, from manufacturing to use, disposal, and recycling [2], as well as conducting regular LCA for "au HIKARI" and "au".
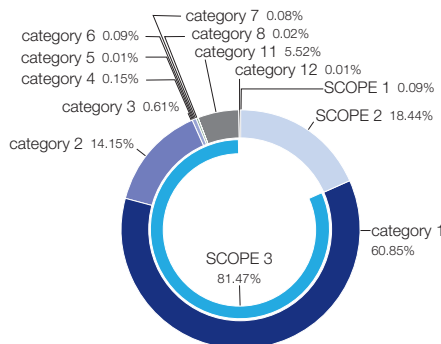
[1] Green Value Chain Platform
[2] Environmental load at the disposal and recycling stage includes environmental load at the manufacturing stage.

GHG Emissions and the Proportions of Each Category

Category			FY2012		FY2013		FY2014		FY2015		FY2016	
			$t\text{-}CO_2$	%	$t\text{-}CO_2$	%	$t\text{-}CO_2$	%	$t\text{-}CO_2$	%	$t\text{-}CO_2$	%
SCOPE 1		All direct GHG emissions	2,857	0.05	3,505	0.06	4,680	0.08	5,344	0.10	5,357	0.09
SCOPE 2		Indirect GHG emissions from consumption of purchased electricity, heat or steam	1,046,565	20.08	935,996	16.08	1,039,677	17.97	1,076,209	19.54	1,063,038	18.44
SCOPE 3	category 1	Purchased goods and services	2,733,364	52.45	3,343,506	57.44	3,306,863	57.16	3,236,999	58.78	3,507,745	60.85
	category 2	Capital goods	952,799	18.28	1,093,184	18.78	1,053,203	18.21	776,711	14.10	815,893	14.15
	category 3	Fuel- and energy-related activities	34,439	0.66	31,480	0.54	34,967	0.60	35,379	0.64	34,913	0.61
	category 4	Upstream transportation and distribution	8,261	0.16	4,994	0.09	7,003	0.12	7,370	0.13	8,706	0.15
	category 5	Waste generated in operations	921	0.02	588	0.01	500	0.01	681	0.01	583	0.01
	category 6	Business travel	5,154	0.10	5,080	0.09	4,590	0.08	4,831	0.09	5,314	0.09
	category 7	Employee commuting	3,497	0.07	2,671	0.05	5,031	0.09	4,574	0.08	4,642	0.08
	category 8	Upstream leased assets	1,751	0.03	1,519	0.03	1,367	0.02	1,309	0.02	1,209	0.02
	category 9	Downstream transportation and distribution	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	category 10	Processing of sold products	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	category 11	Use of sold products	419,922	8.06	397,324	6.83	325,364	5.62	356,359	6.47	318,023	5.52
	category 12	End-of-life treatment of sold products	1,451	0.03	819	0.01	1,606	0.03	886	0.02	363	0.01
	category 13	Downstream leased assets	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	category 14	Franchises	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	category 15	Investments	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
			4,161,559	79.86	4,881,165	83.86	4,740,493	81.95	4,425,098	80.36	4,697,389	81.47
TOTAL			5,210,981	100.00	5,820,666	100.00	5,784,851	100.00	5,506,651	100.00	5,765,785	100.00

* CO_2 emissions are calculated using a conversion coefficient of 0.555 kg-CO_2/kWh for the power consumption and the emission coefficients for fuel consumption applied to the calculation, reporting, and disclosure systems based on the "Act on Promotion of Global Warming Countermeasures."

Comparison of GHG Emission Ratio of Each Category (FY2016)

category 7 0.08%
category 8 0.02%
category 6 0.09%
category 11 5.52%
category 5 0.01%
category 12 0.01%
category 4 0.15%
SCOPE 1 0.09%
category 3 0.61%
SCOPE 2 18.44%
category 2 14.15%
category 1 60.85%
SCOPE 3 81.47%

| Disclosure of CSR Information | Top Message | KDDI Business and Strategies | KDDI's CSR | KDDI Code of Business Conduct | CSR Promotion Framework | Stakeholder Engagement | Four Material CSR Issues | Material Issues - Highlights | CSR Initiatives Through Business | CSR Initiatives Supporting Operations | External Assessment | CSR Data |

Environmental Performance

Activity and Results

Environmental Impact Data

		FY2012	FY2013	FY2014	FY2015	FY2016
Greenhouse gas emissions (CO_2 equivalent; unit: t) *		5,210,981	5,820,666	5,784,851	5,506,651	5,765,785
Electric power consumption (unit: MWh)		1,885,703	1,686,480	1,873,293	1,939,115	1,915,383
Electric power consumption per subscriber (unit: MWh)		464.7	385.4	398.9	390.4	363.5
Fuel consumption (unit: kℓ)		308	260	254	258	338
Paper usage (unit: t)		17,924.0	43,429.2	13,303.0	11,853.0	9,691.1
Water usage (unit: 1,000m³)		1,638	1,864	2,206	2,159	1,223
Industrial waste emissions (unit: t)		1,401.1	1,445.7	1,283.0	1,399.0	643.1
Number of mobile phones and other devices collected by KDDI (unit: 10,000 devices)	Mobile phones	181	154	163	141	148
	Batteries	182	161	182	143	146
	Chargers	83	72	79	65	66
Amount of waste paper and similar materials collected for recycling (unit: t)		2,394	2,235	2,531	1,695	1,205
Equipment-related energy usage at centers (unit: MWh)		685,885	664,798	747,016	779,504	778,224

* CO_2 emissions are calculated using a conversion coefficient of 0.555 kg-CO_2/kWh for the power consumption and the emission coefficients for fuel consumption applied to the calculation, reporting, and disclosure systems based on the "Act on Promotion of Global Warming Countermeasures."
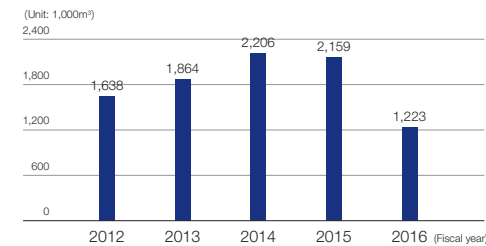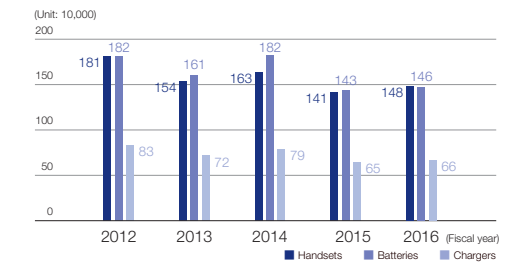
Greenhouse Gas Emissions
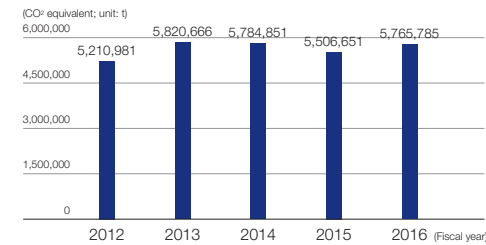
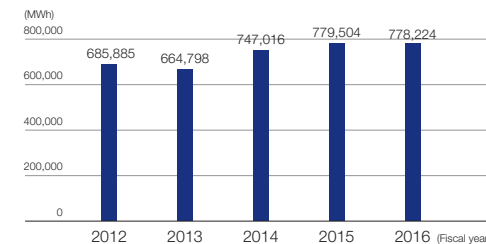### Electricity Consumption and Electricity Consumption per Subscriber
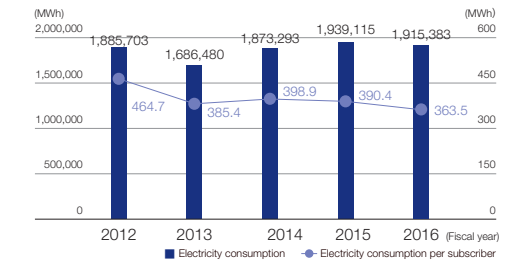
Water Usage

Number of Mobile Phones Collected by KDDI

Equipment-Related Energy Usage at Centers

Environmental Performance

Policy — KDDI Group

KDDI's Approach (Low-Carbon Society)

Greenhouse gas emissions, which are considered a cause of global warming, are increasing year-by-year, and reducing them has become a social issue shared by all humankind.

The utilization of ICT leads to greater efficiency of business activities such as production and consumption, and is expected to contribute to the reduction of customers' CO_2 emission. In addition to expanding utilization, there are fears of an increase in environmental impact caused by the data center and base stations, so that consideration for energy use with regards to the development and introduction of facilities and devices has become an issue.

In order to actualize an affluent low carbon society, KDDI is providing new ICT services to contribute to the reduction of CO_2 emissions in society.

Activity — KDDI Group

Green by ICT

The Environmental Eco Label is provided to services that contribute to reducing the environmental impact of customers and society (reducing CO_2 emissions) through the use of ICT services offered by KDDI.

■ KDDI Cloud Platform Service

KDDI conducts the operation and maintenance of the platform through "KDDI Cloud Platform Service", enabling customers to increase and decrease server capacity remotely from their own office, without having to travel to the data center where the servers are located.

Furthermore, customers can reduce the amount of CO_2 that they generate by moving the servers that they install, operate, and maintain by themselves (on-premises environment) to the "KDDI Cloud Platform Service".

With the "KDDI Cloud Platform Service", server operations are performed with an economy of scale unique to a telecommunications carrier, enabling an approximately 38% reduction in CO_2 emissions per server per year in comparison to when customers operate their servers individually.

■ TELEHOUSE Data Center Services

The TELEHOUSE data centers provided by KDDI are located in 48 bases in 24 cities around the world, including in Japan. They are equipped with high-capacity electric power and incorporate the latest in energy- saving facilities, such as highly efficient and reliable power supply equipment, energy-efficient air conditioning, LED illumination, and outdoor lighting that uses wind and solar power, in an effort to reduce power consumption, achieve low PUE*, and provide significantly lower CO_2 emissions than conventional data centers.

The TELEHOUSE LONDON Docklands North Two fully opened in November 2016, and adopts an indirect external air cooling system and other cutting-edge environmental technologies to achieve PUE 1.16, the highest-level energy efficiency for a data center operator. In Japan, TELEHOUSE TOKYO tama3 also employs the latest in energy-saving facilities and LED illumination, achieving PUE of 1.31 (design value).

TELEHOUSE LONDON Docklands North Two was recognized for achieving highest-level energy efficiency in the 2017 Data Centre Solution Awards.

* PUE is an index representing the energy efficiency of data centers and other IT facilities. It is calculated from average power consumption and design values.

■ FY2016 Products "MATOMETE KURUMATICS"

"MATOMETE KURUMATICS" is a next generation vehicle operation management service that combines telecommunications that enable checking operating conditions in real time with cloud technologies.

Link Website — MATOMETE KURUMATICS (Japanese)

■ Other Eco-Efforts

Initiatives	Details
Participate in the project to achieve an energy-saving society with active robot and drones	Develop an operation management system that utilizes drones for security and operation management functions
Participate in Ministry of Economy, Trade and Industry's virtual power plant launch test project	Promote initiatives for management of power supply and demand utilizing storage batteries for ordinary households and IoT Link Page_52 — Virtual Power Plant Construction and Demonstration Project
Provide KDDI IoT Cloud ~Toilet Water-Saving Management~	Monitor water data in each restroom utilizing IoT to reduce water use by between 40 and 50%* Link Page_53 — Other Exemples of Environment Innovation

* Expected values calculated from performance values of bulb manufacturer

Environmental Performance

Green of ICT

■ Reducing Power Consumption in Base Stations and Undertaking Disaster Measure Initiatives

The au mobile phone base stations account for 60% of the total energy consumed by KDDI, reducing the power that base stations consume, which is one of our topmost priorities. Furthermore, 77% of the base stations that ceased to operate in the aftermath of the Great East Japan Earthquake that struck in 2011 did so because of power outages. This shows that disaster preparedness measures that address power outages are a pressing topic.

In regard to these issues, KDDI has promoted Tribrid Base Station initiatives* and extending the life of base station batteries to 24 hours.

* Base stations utilizing tribrid electric power control technology to efficiently supply three kinds of electric power: ordinary commercial power, power generated by solar panels, and midnight power saved in storage batteries

	Numbers as of the end of March 2017
Tribrid base stations	100 stations in Japan
Extending life of base station batteries to 24 hours	Around 2,200 stations in Japan

<Portable Batteries>

In FY2013, KDDI introduced and utilizes portable batteries with reduced environmental impact at 5 maintenance bases throughout Japan as a substitute for the mobile power supply vehicles used in the past to power mobile phone base stations during electricity outages.

Portable Battery Trial Test Results (FY2012)

Mobile power supply vehicles	8.2 L diesel fuel consumed per time	CO_2 emissions: 21.5 kg
Portable batteries	10 kWh of power consumed per time	CO_2 emissions: 4.1kg

A reduction of 17.4 kg of CO_2 emissions per time
* With an approximately 10-hour base station power outage and 1 kW wireless device power consumption

■ Renewable Energy (Internal use)

In order to actualize even better energy conservation and CO_2 emissions cuts at KDDI, a portion of the electric power used at large scale communications stations and tribrid base stations are utilizing natural energy sources such as solar power. In addition, almost all electrical power at eight mobile telephone base stations in Japan come from natural energy sources.

The amount of natural energy produced by each Tribrid Base Station is approximately 4.2 kWh per day*, accounting for 18% of the power used by every device. Furthermore, by utilizing midnight power, we predict that CO_2 emissions will be reduced 20 to 30%.

* Includes values researched by KDDI where average energy production is predicted from 6 solar batteries installed in test stations during clear skies

■ Renewable Energy (solar power generation business)

KDDI launched its solar power generation business in November 2013 with the aim of contributing to reduction of CO_2 emissions. We constructed solar power generation facilities on idle land owned by KDDI in three locations around Japan, and we sell the power generated to electric power companies based on the Feed-in Tariff Scheme for Renewable Energy.

Unit: MWh

	FY2013	FY2014	FY2015	FY2016
Total Power Generated (Total Generated Power Sold)	3,034	14,403	13,674	14,288

External Assessment

Link Page_117   Winner of the Minister of the Environment Gold Award in Low Carbon Cup 2017

KDDI's Approach (Recycling-Oriented Society)

In order to reduce our environmental impact from waste produced through business activities, we effectively utilize our resources to contribute to the formation of a recycling-orientated society.

Reducing Waste and Promoting Recycling

KDDI promotes reuse activities that regenerate and effectively employ retired telecommunication facilities. We also use material recycling to effectively employ equipment, components and materials that have become unnecessary.

In FY2016, KDDI recycled a total of 2,400.8 tons of the materials in old deteriorated rechargeable batteries installed in telephone exchange stations used in test environments, to effectively utilize their resources. We will continue to make proactive efforts to reuse and

Environmental Performance

recycle the retired equipment generated during regular upgrades of communications equipment for base stations and other facilities in the future.

Activity and Results — KDDI

Promotion of Mobile Phone Recycling

Used mobile phone handsets that have been collected from customers at au shops are manually disassembled, separating out substrates, displays, cameras, plastics, screws, iron, antennas, motors, speakers and other items, in a secured room. Gold, silver, copper, palladium and other resources are extracted from the substrates, while screws and antennas are recycled into steel products and plastics are recycled into plastic products. When a machine is used to disassemble a mobile phone, plastics are burned up in the incineration process and so cannot be used as a recycled resource. In addition, recycling eliminates the need to conduct new mining and refining of mineral resources such as oil, iron, gold, silver, and copper, while also reducing the amount of carbon dioxide that is generated through the mining and refining processes. KDDI performs all disassembly manually to prevent recyclable resources from being wasted.

Performance in FY2016

Collection Performance*	Recycling Rate
3.59 million	99.8%

* Includes main body, batteries, and chargers

Link Website	au shop Locator (Japanese)
Link Page_80	Expanding Employment Opportunities and Advancement of Persons with Disabilities

Activity and Results — KDDI

Reduction of Paper Resources

Initiatives	FY2016 Result
Reduction of paper by putting bills on the Web	3,892 t

Basic flow for Recycling of Mobile Phones

Turned into next products and provided to customers → Customers

Used mobile phone handsets

1. Personal information leakage prevention through formatting and circuit board destruction using specialized machines.

2. Disassembly conducted by hand to facilitate material recycling.

Different recycling processes employed for different materials.

Iron products — Aluminum products — Copper products — Plastic products

Domestic steelmakers ← Iron
Domestic producers of non-ferrous metals ← Non-ferrous metals (copper/aluminum)
Recycling plant ← Plastic

To KDDI-designated recycling plant

KDDI Challenged and other recycling plants

To promote material recycling, disassembly is performed by hand in secure rooms at KDDI Challenged and other recycling plants

Environmental Performance

Policy   **KDDI**

Approach to Water Use

There are fears of losing water resources from population increase on a global scale and the reduction of useable water caused by climate change. Disputes concerning water distribution and pollution have broken out in various locations around the world, making efficient water use an issue. KDDI is making efforts to provide products and services to reduce water use from business activities and contribute to efficient water use.

■ **Providing KDDI IoT Cloud ~Toilet Water-Saving Management~**
In office and public restrooms, toilets with only one setting when flushing are usual, leading to excessive water use. "KDDI IoT Cloud ~ Toilet Water-Saving Management~" detects users with a sensor set in toilet stalls, optimizing control of the amount of toilet water while the user is present.

Furthermore, by understanding the water amount data in individual stalls utilizing IoT, we can monitor and remotely maintain precise water amounts, saving 40 to 50%* water and reducing costs compared to before.

* Expected values calculated from performance values of bulb manufacturer. Value may be lower depending on the location installed.

Policy   **KDDI**

KDDI's Approach (Biodiversity)

KDDI has established the KDDI Action Guidelines on the Preservation of Biodiversity to multilaterally assess our contributions toward the preservation of biodiversity. In these guidelines, we defined the 3 principles of Preserving Diversity in Business Activities, Collaboration and Cooperation with Related Organizations, and Promoting Recycling of Resources. Using this policy, we pinpoint various opportunities to promote activities.

KDDI Action Guidelines on the Preservation of Biodiversity

Preserving Diversity in Business Activities
When formulating business plans, we take into consideration the impact on the related ecosystems and local community.
Collaboration and Cooperation with Related Organizations
We strengthen collaboration and cooperation with administrative authorities, NPOs and other organizations, and undertake CSR activities using ICT.
Promoting Recycling of Resources
To prevent the depletion of bioresources and minimize degradation of the natural environment, we continuously and proactively engage in recycling of resources.

Policy   **KDDI**

Biodiversity Consideration for Building Base Stations

KDDI is also taking biodiversity into consideration when constructing base stations. This includes cooperation with local governments and environmental conservation associations to delay construction when it falls during nest building and egg laying periods of the Northern Goshawk and the Oriental Stork. Another example is the transplanting and afforestation of rare plants that exist on sites with guidance from the Ministry of the Environment. Furthermore, we select construction methods that do not produce pile driving noise so that the delivery, breeding, and milking of race horses and dairy cattle are not affected by construction noise. Although we have their understanding on the necessity for base station construction, we take great efforts to build reliable relationships with local governments and residents by minimizing the effect that base station construction has on the environment.

Activity   **KDDI Group**

Research on Behavior of Endangered Ganges River Dolphins

KDDI Research utilizes the acoustic technology cultivated by underwater robots that maintain and inspect submarine cables that connect continents and collaborates with the Institute of Industrial Science, The University of Tokyo, the Kyushu Institute of Technology, the Indian Institute of Technology Delhi, and WWF-India to observe the ecology of the endangered Ganges River dolphin.

The researchers catch the ultrasonic waves these dolphins emit to determine their surrounding environment through murky waters using underwater microphones in hopes of surveying the dolphins' behavior underwater. One advantage of using this method is that it enables the

Environmental Performance

observation of large numbers of dolphins without having any effect on their behavior because it does not physically touch the dolphins.

This initiative won the Fujisankei Group Award at the 25th Global Environment Awards.

| Activity and Results | KDDI |

Green Road Project

■ Participation in Volunteer Survey of Manazuru Forest Reserve of Uotsuki

KDDI participated in the volunteer survey of the Forest Reserve of Uotsuki located in the Manazuru Peninsula. This activity is carried out with the objective of permanently preserving the Forest Reserve of Uotsuki formed from black pines afforested in the Edo period. It forms a part of the Forest Reserve of Uotsuki Conservation Project executed in collaboration between the town of Manazuru and OISCA International. Utilizing tablets loaned out by KDDI and the "G Suite Basic(TM)*" solution service, we cooperated with the citizens of Manazuru to survey the degree of growth of the trees.

* A cloud groupware service that can be used online or offline on smartphone and tablet apps

■ Environmental Conservation Activities by Employees

In FY2016, as in previous years, KDDI conducted environmental conservation activities in regions across Japan. Employees and their families participated in volunteer activities in a variety of settings in each region, ranging from mountains to rivers and beaches.

Environmental conservation activity execution	Total participants
122 times	4,529

Hokkaido Branch
· Countermeasures against forest damage from deer reforestation activities

Northern Kanto Branch
· Conservation activities in Musenyama, KDDI's Forest, a Green Trust conservation location

Hokuriku Branch
· Participation in cleaning activities held by Committee to Beautify Asano River
· Participation in the Greenery and Satoyama Conservation Forest Tree Raising Activities 2016 held by OISCA

Chugoku Branch
· Participation in Daisen Fullscale Fall Cleaning held by the town of Daisen
· Participated in forest conservation activities held by the Hiroshima Afforestation Forum

Kyushu Branch
· Participation in Patchwork Reforestation held by the city of Yame

Shikoku Branch
· Participation in forest conservation activities of the Shoyo Forest Reforestation held by the town of Uchiko
· Participation in Onoseyama afforestation activities held by OISCA

Tohoku Branch
· Planting planted maple saplings as part of satoyama conservation activities

Head Office/Southern Kanto Branch
· Employees and their families participate in thinning pines and cypresses on Mount Takao

Head Office
· Participation in Mount Fuji Reforestation held by OISCA
· Tree growth survey held by the town of Manazuru as a part of the Forest Reserve of Uotsuki Conservation Project

Chubu Branch
· Participation in the Nagano Adopt-a-Forest Promotion for forest conservatio
· Held cleanup activities in Omotehama Network's loggerhead sea turtle nesting grounds

Kansai Branch
· Logging of chinquapin trees to beautify Mount Tennozan