

Supply Chain Approach

Activity and Results


Response to Scope 1, 2, and 3 Emissions


KDDI conducts periodic life-cycle assessments (LCA),^[1] which assess environmental load, by calculating CO₂ emissions in every step of its products and services from manufacturing to use, disposal, and recycling. KDDI uses these assessments to quantitatively determine and disclose its environmental load. In recent years, the movement for the visualization (determining and disclosing of management and information) of emissions from the supply chain of telecommunications carriers has intensified, and KDDI has established guidelines^[2] to respond to this need. Using these guidelines, we have calculated greenhouse gas emissions of the supply chain since FY2012. For FY2015 business activities, Scope 3 accounted for 80.36% of total greenhouse gas emissions (Scope 1, 2 and 3), and when looking at individual categories, we saw that Category 1 and Category 2 continued to account for a large percentage of emissions but were lower than in the previous fiscal year. We will continue analyzing these key categories and promote initiatives to reducing their emissions. The Scope 1 and 2 calculations were subjected to independent third party verification by Lloyd's Register Quality Assurance Limited. In addition, to enhance the reliability of the Scope 3 calculations, the results were subjected to third party verification by Waseda Environmental Institute Co.,Ltd..

KDDI plans to continue its efforts to determine its Scope 1, 2, and 3 emissions and reduce its environmental load.

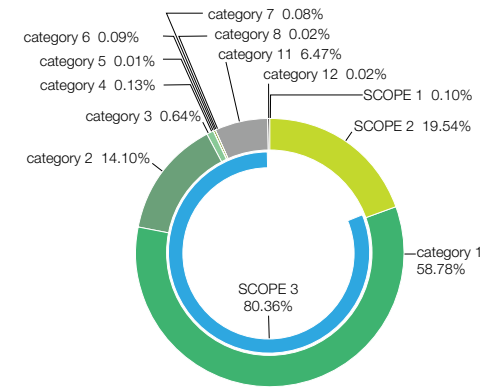
[1] Environmental load at the disposal and recycling stage includes environmental load at the manufacturing stage.

[2] Green Value Chain Platform

 Scope 1 and Scope 2 FY2014 Greenhouse Gas Emission Verification Statement
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 Scope 3 FY2015 Greenhouse Gas Emission Verification Report
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Comparison of GHG emission ratio of each categories (FY2015)



GHG emissions and the proportions of each categories

Category		FY2012		FY2013		FY2014		FY2015	
		t-CO ₂	%	t-CO ₂	%	t-CO ₂	%	t-CO ₂	%
Scope 1	All direct GHG emissions	2,857	0.05	3,505	0.06	4,680	0.08	5,344	0.10
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
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
	category 2 Capital goods	952,799	18.28	1,093,184	18.78	1,053,203	18.21	776,711	14.10
	category 3 Fuel- and energy-related activities	34,439	0.66	31,480	0.54	34,967	0.60	35,379	0.64
	category 4 Upstream transportation and distribution	8,261	0.16	4,994	0.09	7,003	0.12	7,370	0.13
	category 5 Waste generated in operations	921	0.02	588	0.01	500	0.01	681	0.01
	category 6 Business travel	5,154	0.10	5,080	0.09	4,590	0.08	4,831	0.09
	category 7 Employee commuting	3,497	0.07	2,671	0.05	5,031	0.09	4,574	0.08
	category 8 Upstream leased assets	1,751	0.03	1,519	0.03	1,367	0.02	1,309	0.02
	category 9 Downstream transportation and distribution	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
	category 11 Use of sold products	419,922	8.06	397,324	6.83	325,364	5.62	356,359	6.47
	category 12 End-of-life treatment of sold products	1,451	0.03	819	0.01	1,606	0.03	886	0.02
	category 13 Downstream leased assets	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
	category 15 Investments	0	0.00	0	0.00	0	0.00	0	0.00
TOTAL		4,161,559	79.86	4,881,165	83.86	4,740,493	81.95	4,425,098	80.36

* CO₂ emissions are calculated using a conversion coefficient of 0.555 kg-CO₂/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."

Supply Chain Approach

System

LCA Initiatives

KDDI conducts life-cycle assessments (LCA) to quantitatively assess and show the environmental load, by calculating CO₂ emissions in every step in the life of its products and services, from manufacturing to use, disposal, and recycling*.

In FY2015, KDDI conducted LCA for “au HIKARI” and “au” as a follow-up to the LCA conducted in FY2008 and FY2012. (Calculated by KDDI Research Institute, Inc.)

The environmental load of “au HIKARI” increased slightly as a result of the manufacturing costs and power consumption of computers, and improvements to network equipment. As for the environmental load of “au”, although there was a decrease due to the reduced size and power consumption of base stations, there was also an increase due

to a rise in manufacturing resulting from the spread of smartphones, resulting in a slight overall increase in the environmental load. Moving forward, KDDI will continue to periodically conduct LCA activities.

* The environmental load at the disposal and recycling stage is included in the environmental load at the manufacturing stage.

Policy and System

Promoting Green Procurement

KDDI formulated “KDDI Green Procurement Guidelines” to promote purchasing of more environment-friendly products, and since April 2010 we have procured business equipment (communications devices, air conditioning systems, power supply facilities, etc.) with high energy-saving performance. The Guidelines set standards for 29 kinds of equipment, of which the standards for 15 kinds of equipment

are based on guidelines specified by the ICT Ecology Guideline Council, while those for the remaining 14 are based on KDDI's own standards set with reference to public standards in Japan and abroad (Top Runner Standards, ATIS [USA], CoC [Europe], etc.).

Furthermore, in FY2015, we implemented a CSR procurement survey for business partners, and obtained responses from nearly 100% of our business partners.

Conservation of the Global Environment
ICT Ecology Guideline Council

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KDDI Green Procurement Guidelines (Japanese)

[Link](#) Website

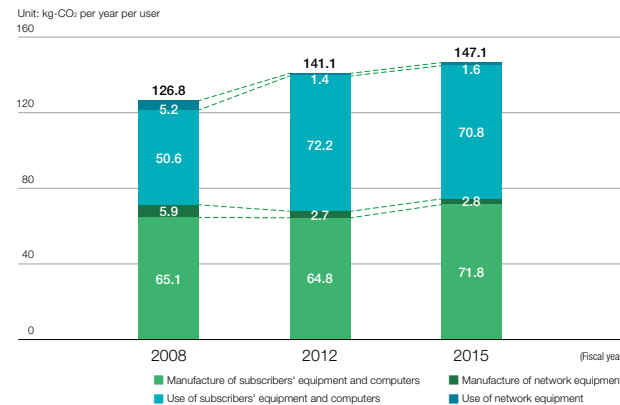
Activity and Results

Cooperation with Suppliers

KDDI aims to reduce its environmental load and is making efforts to make its base stations lighter and more energy efficient, among other efforts. In FY2014, KDDI worked with its base station equipment suppliers to develop equipment that is lighter and consumes less power (approximately 45% lighter and approximately 22% less power consumption than previous base station equipment). In FY2015, KDDI continued working to reduce the environmental load by implementing this equipment.

KDDI will continue promoting approaches to suppliers and work with suppliers to reduce its environmental load.

Environmental Load of au HIKARI



Environmental Load of au

