Realizing a Low-carbon Society

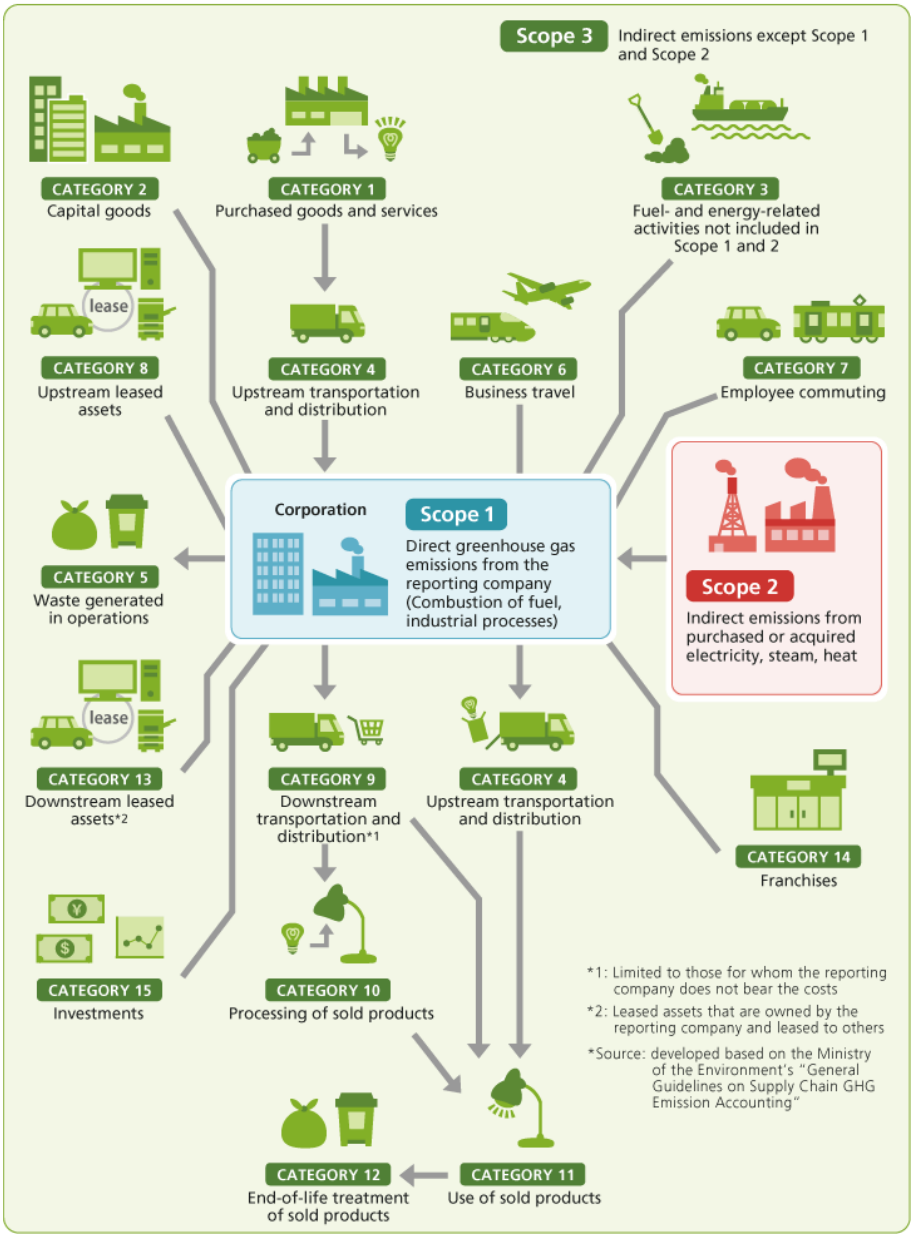
The Nikon Group is formulating measures in each stage of the product life cycle to reduce CO_2 emissions as we recognize the importance of reducing CO_2 throughout the entire supply chain.

Initiatives to Reduce CO_2 Throughout the Entire Supply Chain

The Nikon Group recognizes that initiatives not only by the Group itself but also throughout the entire supply chain are indispensable for realizing a low-carbon society. Therefore, we evaluate our overall environmental impact, consider measures and implement them to reduce the impact.

In addition to current direct emissions (Scope 1*1) and indirect emissions from energy consumption (Scope 2*2), we calculate indirect greenhouse gas emissions related to business activities in the supply chain (Scope 3*3).

Image of Scope 1, Scope 2, and Scope 3



*1 Scope 1
Direct greenhouse gas emissions due to the use of fuel on site

*2 Scope 2
Indirect greenhouse gas emissions from consumption of purchased electricity, heat or steam

*3 Scope 3
Indirect greenhouse gas emissions related to business activities in the supply chain (except those of Scope 1 and 2)

Understanding Scope 3 Emissions

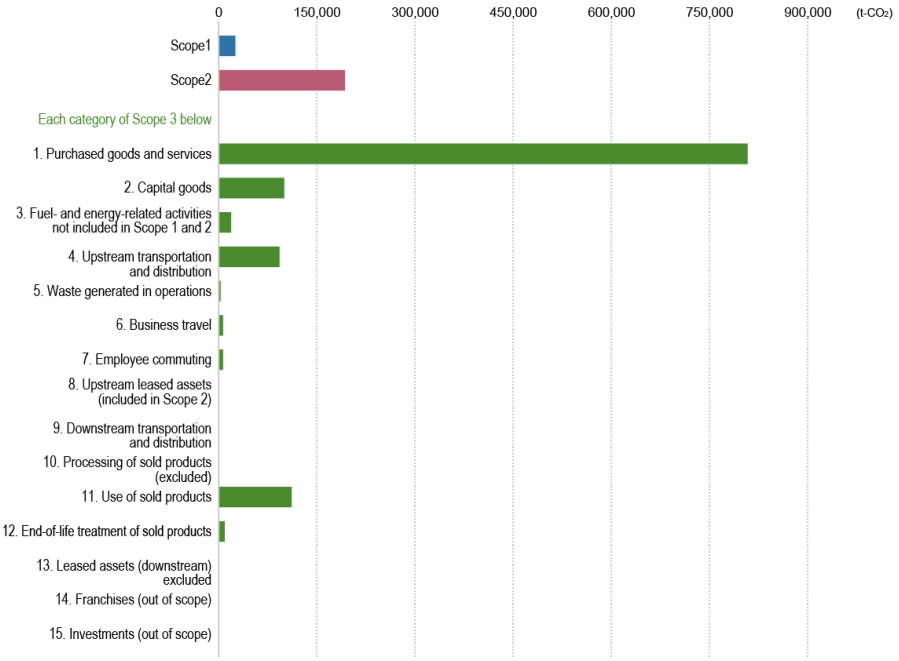
We participated in a project supported by the Ministry of the Environment*. The project was aiming to help companies understand their supply chain emissions. We calculated our Scope 3 emissions and found out that Category 1 (purchased goods and services) has the largest emissions in our supply chain.

*Project supported by the Ministry of the Environment
One of the projects that the Ministry of the Environment introduced to support understanding and managing supply chain emissions in each stage of the supply chain such as raw material procurement, logistics and disposal.

CO_2 Emissions List Breakdown by Scope and Category

Scope/Category	t-CO_2	Boundary
Scope 1	24,210	Nikon Corporation Group companies in Japan Group manufacturing companies outside Japan
Scope 2	191,865	Nikon Corporation Group companies in Japan Group manufacturing companies outside Japan
Each category of Scope 3 below		
1. Purchased goods and services	806,989	Nikon Group (excluding Instruments Business and Other Businesses)
2. Capital goods	100,276	The entire Nikon Group
3. Fuel- and energy-related activities not included in Scope 1 and 2	17,344	Nikon Corporation Group companies in Japan Group manufacturing companies outside Japan
4. Upstream transportation and distribution	93,220	The entire Nikon Group
5. Waste generated in operations	3,182	Nikon Corporation (excluding Head office) Group manufacturing companies in Japan Group manufacturing companies outside Japan
6. Business travel	6,115	Nikon Corporation
7. Employee commuting	5,171	Nikon Corporation
8. Upstream leased assets (included in Scope 2)	-	Calculation included in Scope 2
9. Downstream transportation and distribution	-	Not calculated (because the amount is very small)
10. Processing of sold products (excluded)	-	Not calculated (because the amount is very small)
11. Use of sold products	110,761	Nikon Group (excluding Instruments Business and Other Businesses)
12. End-of-life treatment of sold products	6,797	Nikon Group (excluding Instruments Business and Other Businesses)
13. Leased assets (downstream) excluded	-	Not calculated (because the amount is very small)
14. Franchises (out of scope)	-	There are no relevant activities
15. Investments (out of scope)	-	Not applicable (because we are neither an investment company nor a company that provides financial services)

CO_2 Emissions by Scope and Category

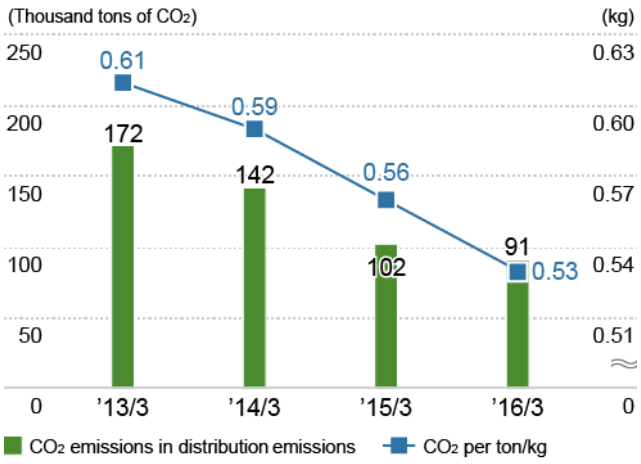


Reducing CO_2 Emissions in Distribution (Scope 3) (P76)
Initiatives to Reduce CO_2 at Our Facilities (Scope 1, 2) (P78)

Reducing CO_2 Emissions in Distribution

As the products of Nikon Group are manufactured in facilities located mainly in Asia and distributed worldwide, we identified the distribution routes, including those used by Group manufacturing companies in Japan, and obtained numerical data on transportation volumes and CO_2 emissions and works to reduce CO_2 emissions during transport. We calculate CO_2 emissions resulting from distribution by using the Mobile Combustion GHG Emissions Calculation Tool (Greenhouse Gas (GHG) Protocol).
CO_2 emissions amounted to 1,073 tons for distribution in Japan and 91 thousand tons for international distribution in the year ended March 2016. We started to collect and analyze the related information in order to calculate CO_2 emissions for inter-American distribution in the year ended March 2016. In the year ending March 2017, we will expand the scope of visualization of CO_2 emissions from transportation and improve the loading ratio, modal shifts, and direct delivery.

CO_2 Emissions from Nikon Group Distribution



Promotion of Modal Shifts

The Nikon Group promotes modal shifts* in order to reduce environmental impact. We are shifting the mode of delivery from airplane to ship, and from truck to railway.
Each business unit is working intensively to shift the mode of delivery and procurement to low impact transportation, starting with what is possible.
We have tested rail shipment from China to Europe as a trial for realizing regular rail shipment for our Imaging Business Unit products. CO_2 emissions were reduced to roughly 70th part of previous levels by shifting shipment from airplane to railway. Although rail shipment is not possible during the winter due to the climate condition, we are actively working on shifting the mode of transportation not only from airplane to ship, but also from airplane to railway. At the same time, we are shifting the mode not only for the delivery of products, but also for packaging materials to procurement partners, returning delivery boxes and the tools for delivery. We strive to promote modal shifts continuously while maintaining the quality of distribution.

* Modal shifts
To switch the mode of transporting products to one which have less environmental impact.

Introducing Eco-friendly Vehicles and Improving Transportation Efficiency

The Nikon Group is gradually replacing its company vehicles and freight trucks with fuel-efficient models, and is promoting the introduction of eco-friendly vehicles.
We are also working to improve transportation efficiency. For transportation between Nikon Corporation's Kumagaya Plant and Narita International Airport, we shifted from "as-needed" to regular transportation, thereby greatly increasing transport efficiency. We are also shortening transport distances by reviewing international distribution routes (direct delivery).
At the same time, we try to implement eco-friendly distribution from many aspects, such as revising the size of the presentation case for digital cameras to be able to load products more efficiently, and eliminating the exterior boxes by switching from container transport to pallet transport.

Environmental-friendliness During Standby and Transport

Nikon Business Service Co., Ltd., which oversees the transportation of goods for the Nikon Group, is promoting stop idling and eco-driving. When transporting IC steppers and scanners by road, it is necessary to strictly control the cargo room temperature with the use of in-vehicle air-conditioning equipment. For which purpose, engine used to be kept running even while the vehicle was parked. However, there is no longer any need for idling within the premises of our plants where we have introduced measures to power the equipment by the use of external sources. It leads to the reduction of about 9kg of CO_2 each hour per vehicle. This external power system has been implemented into all vehicles that we own.
Furthermore, we have installed digital tachographs and drive recorders in all of our large-goods vehicles to record, manage, and evaluate information such as the route, time of departure, maximum speed, sudden starts, sudden acceleration, the number of times of sudden braking, and the rest time. We aim to further improve fuel efficiency and raise safety awareness among our drivers through these measures. In addition, all drivers periodically attend eco-driving workshops.

Drive recorders inside vehicles

Initiatives to Reduce CO_2 at Our Facilities

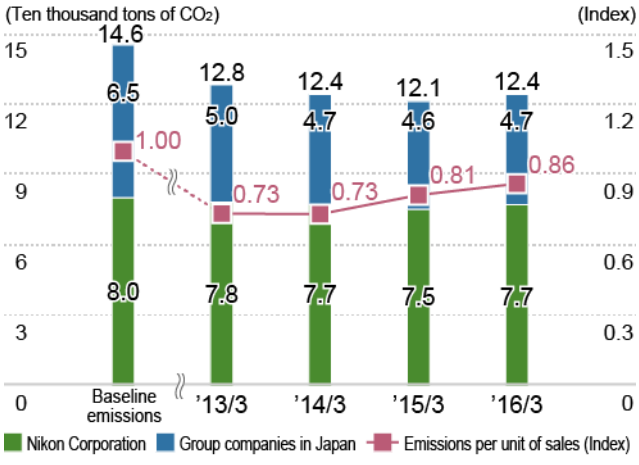
The Nikon Group is committed to realizing a low-carbon society in order to pass on a healthy global environment to future generations.
Each plant of Nikon and every Nikon Group company set CO_2 reduction targets as an action plan under the Operating Environmental Subcommittee which formulates, executes and assesses environmental activities at Group's facilities.
We promote visualization of our energy use in order to achieve the targets. For this purpose, we revise our environmental data collection and management system and try to increase the number of facilities using this system. We are also working continuously to reduce our CO_2 emissions by implementing measures such as introduction of highly efficient devices in each department, increasing the efficiency of HVAC and lighting equipment, improving production activities, managing the use of HVAC, lighting, and OA devices, and making more use of renewable energy.
In addition, we promote diversified activities for each department such as educational activities for our employees.

CO_2 Emissions from Nikon and Group Companies in Japan

In the year ended March 31, 2016, the total CO_2 emissions of Nikon Corporation and Group companies in Japan came to 124 thousand tons, meaning we achieved our target of 133 thousand tons.

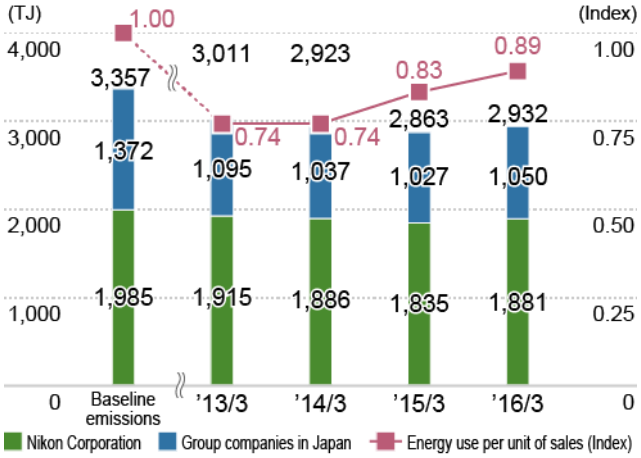
CO_2 Emissions from Nikon Corporation and Group Companies in Japan

(Calculated by fixing the CO_2 emissions factors for the use in the Action Plan)



* Boundaries (in and outside Japan) was expanded from '16/3.
* The values above are aggregated the results of CO_2 emissions from energy use.
* The baseline emission is the average value between the year ended March 31, 2006 and the year ended March 31, 2008
The CO_2 emission factors are the weighted average values of the actual emission factors between the year ended March 31, 2006 and the year ended 31, 2008 (fixed for the entire period).
The CO_2 emissions are calculated using the following unit heating values:
City gas: Specific value of each gas company
Other fuels: Values contained in the Manual for Calculating and Reporting Greenhouse Gas Emissions for the baseline emission calculation

Energy Use by Nikon Corporation and Group Companies in Japan



* Boundaries (in and outside Japan) expanded from '16/3.
* The baseline use is the average value between the year ended March 31, 2006 and the year ended March 31, 2008
The energy use is calculated using the following unit heating values:
Electricity: Specific value of each electricity company
City gas: Specific value of each gas company
Other fuels: Values contained in the Manual for Calculating and Reporting Greenhouse Gas Emissions to calculate the energy use in each fiscal year

Since almost all of greenhouse gas emissions from Nikon Corporation and the Group companies in Japan are in the form of CO_2 from energy consumption and the ratio of other greenhouse gases* is 0.7%, greenhouse gas emission reduction targets and measures in the Nikon Group are implemented based on CO_2 emissions from energy consumption.

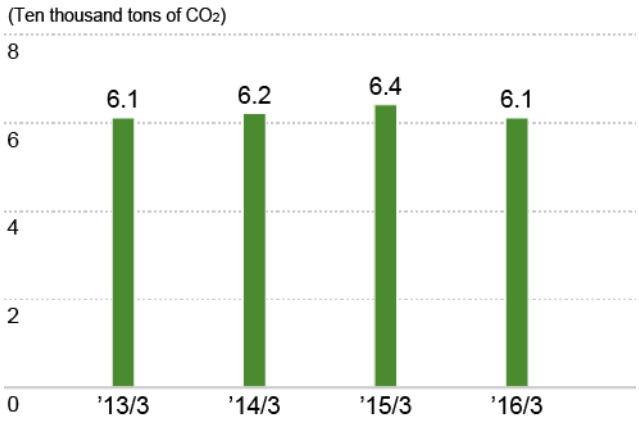
* Other greenhouse gas
Greenhouse gases excluding CO_2 from energy sources. Specifically, it refers to CH_4, N_2O, HFC compounds, PFC compounds, SF6, NF3 and non-energy CO_2 emissions.

CO_2 Emissions from Group Companies Outside Japan*

The CO_2 emissions from our Group Companies outside Japan was 61,385 tons in the year ended March 31, 2016.

* This covers Group Companies outside Japan (Ⅲ) on the boundary list.

CO_2 Emissions from Group Companies Outside Japan



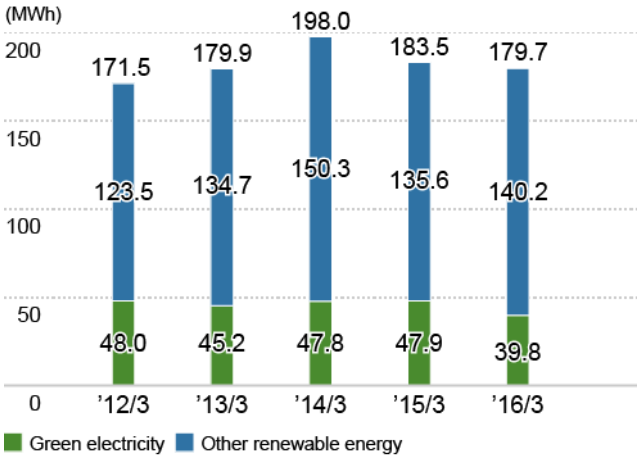
* The CO_2 emission factors are International Energy Agency (IEA) factors by country in the year ended March 31, 2011.

Utilizing Renewable Energy

The Nikon Group is actively furthering the use of renewable energy. Nikon Corporation's Kumagaya Plant has been operating a solar power generation system at full capacity since January of 2010. The system generates at least 100,000 kWh of power per year, which results in a reduction of CO_2 emissions of about 50 tons per year. Nikon Corporation's Yokohama Plant has installed solar power equipment on the walls of Building No. 502 completed in April 2013 and the equipment generates approximately 26,000 kWh per year with a CO_2 reduction effect of approximately 10 tons per year. The plant also cosponsors Yokohama City's project for wind power generation as a Y (Yokohama) Green Partner Company.

Nikon Imaging (China) Co., Ltd. is also introducing LED lighting with solar panels for the outdoor lights on the factory premises.

Renewable Energy Use by Nikon



Monitor showing the amount of power generated in real time at Kumagaya Plant

Solar power generation panel at Kumagaya Plant

Yokohama Plant's certificate for green power


LED outdoor lighting with solar panel at Nikon Imaging (China) Co., Ltd.

Examples of CO_2 Emissions Reduction Measures by the Nikon Group

Examples of CO_2 Emissions Reduction Measures Using Steam

Nikon Imaging (China) Co., Ltd. uses steam which is the by-product of power generation during the winter season (from November to March) to purify RO water*. This conserves roughly 600,000 kWh of electricity throughout the year.


Steam pipes running inside the premises at Nikon Imaging (China) Co., Ltd

* RO water

RO water refers to pure water removing impurity through Reverse Osmosis (RO).

Improving Operating Controls for Boilers

Tochigi Nikon Precision Co., Ltd. uses steam for some of its manufacturing processes. The company has succeeded in minimizing the frequency of switching between operation and stoppage by establishing the optimal conditions for boiler operation in line with the pressure required for the supply destination of the steam. As a result, the company has reduced CO_2 emissions by more than 400 tons a year.

Energy Saving from Effective Use of Workplace

Kurobane Nikon Co., Ltd. contributed greatly to energy conservation by improving its operational efficiency. This was achieved by reducing the number of lens processing working places from five to three and by the elimination and consolidation of equipment used in the cleaning process.

Eco Building at the Yokohama Plant

Completed in April 2013, Building No. 502 at the Yokohama Plant incorporates various eco-friendly measures such as insulation in the exterior walls, green curtains, a green rooftop, efficient air conditioning, LED lighting as well as a system for solar power generation.

Building No.502 at the Yokohama Plant

Highly Efficient Lighting

Nikon Imaging (China) Co., Ltd. is trying to reduce energy use by various measures such as thinning the florescent lights (removed approx. 5,000) within the plant to transition to LED lights and implementing LEDs with motion sensors to turn off the lights when no one is present. The amount of electricity used was reduced 30% thanks to the introduction of those motion sensors.

Fluorescent-style LED lighting in common areas at Nikon Imaging (China) Co., Ltd

Expanding Energy Conservation Efforts

The CO_2 Committee Group, whose members are the in-house environmental officers, conducts energy conservation patrol at Nikon (Thailand) Co., Ltd. As well as making frequent checks of the temperature controls and lighting on their patrols, they also work toward the proper management of air conditioners and lighting.

A monthly energy-conservation patrol of the entire plant is also conducted at Nikon Imaging (China) Co., Ltd. They strive to reduce the use of lighting and to effect proper management of air conditioning and exhaust equipment. They also work on energy-saving activities such as the monthly check of compressed-air leakage.

Energy conservation patrol at Nikon (Thailand) Co., Ltd.

Display calling for energy conservation posted near light switches at Nikon (Thailand) Co., Ltd.

Conserving Energy at Offices

All facilities are switching to highly efficient lighting, introducing sensor-equipped lighting, and promoting efficiency for air conditioning equipment and office machinery.

Nikon AG (Switzerland) has improved insulation of the building by installing an automated curtain on the exterior of the office building. Nikon Australia Pty Ltd has installed the main control panel for managing lighting of all areas of the office. It is located at the main entrance to allow staff to check if the lights have been left on in areas that are not in use.

In Nikon India Private Limited (India), we have been taking action to improve lighting efficiency and extinction of the lights, and to reduce electricity use in PC's and air conditioners. In the year ended March 2015, we changed almost all the office lighting from fluorescent lights to LED. The high luminance of LED allowed a decrease in the amount of lighting, and led to a major energy consumption reduction. A branch of the Tochigi Office of Nikon Staff Service Corporation has installed a green curtain by the window by planting cucumber, bitter gourds and water melon. This mitigates the temperature rise inside the office during the summer.

All offices strive to conserve energy in their daily operations with appropriate temperature settings on the air conditioning, timers to manage lighting, and a reduction of standby power etc.

The Nikon AG office building with its exterior automated curtain

Main control panel for lighting at Nikon Australia Pty Ltd

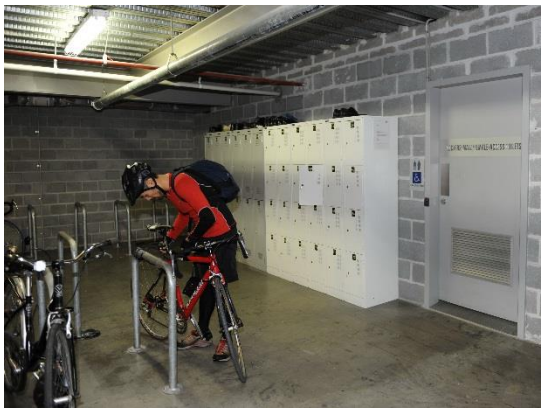
In Nikon India Private Limited almost all of the lightings are LED

The green curtain at the staff placement branch of the Tochigi Office of Nikon Staff Service Corporation.

Efforts for Commuting and Commercial Vehicles

All offices are making efforts to introduce eco-friendly cars, hybrid cars or other fuel-efficient vehicles of company cars. Some offices are also encouraging commuting with low environmental impact.

For example, Nikon Australia Pty Ltd has provided bicycle parking and shower facilities for employees who commute by bicycle, and is also calling on employees to car pool or use public transportation for their commute instead of the private cars.



The bicycle parking at Nikon Australia Pty Ltd