Protecting our planet to pass on to future generations

The Nitto Group implements environmental management through two approaches: “minimizing the negative environmental impact of our businesses;” and “providing a positive impact through our products and services.”

Protecting Our Planet for Future Generations – The Nitto Group’s Environmental Policy

On April 1, 2014, we reassessed the Nitto Group’s Environmental Policy.

The Nitto Group’s Environmental Policy

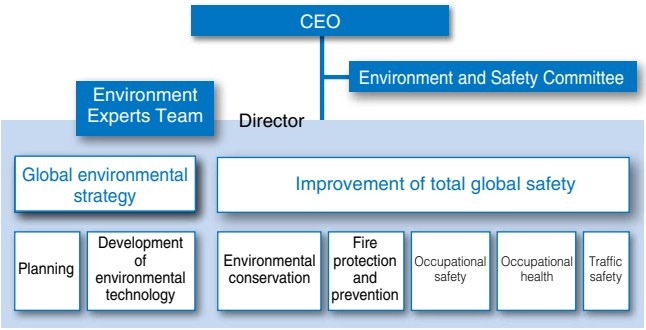
We contribute to the development of a sustainable society by minimizing the negative environmental impact of our businesses and providing a positive impact through our products and services.

Our environmental policy for business activities:

- Integrity with a commitment to environmental preservation both locally and globally
- Helping to create a sustainable society by offering products and services
- Compliance with laws in letter and spirit

Organization for Environmental Management

We have an expert team in order to promote environmental management across the entire Nitto Group. The head of the team is a representative director.



Further Promotion of Environmental Management – Doubling Environmental Efficiency by 2015

In order to evaluate the status of environmental management of the entire Group, we use an index of Environmental Impact Value-Added Productivity. The Nitto Group has set fiscal 2005 as the base year and aims to double the index (Index=200) by 2015.

$$\text{Environmental impact value-added productivity} = \frac{\text{Added value (million yen)}}{\text{Environmental Impact (in } CO_2 \text{ equivalent)}}$$

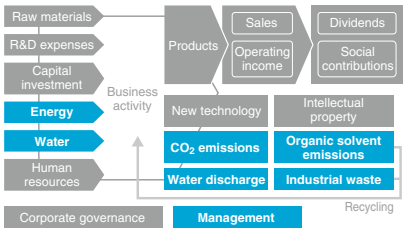
What Was Learned from the Environmental Impact Value-Added Productivity Index

The Environmental Impact Value-Added Productivity Index is an index which indicates the added value (after eliminating material and other costs from revenue) created from corporate activity divided by the negative environmental impact from that activity. A higher index indicates the same added value has been created with a lower negative environmental impact.

The Three Major Factors in the Negative Environmental Impact of the Nitto Group and our Approach to Reducing Them

We expend a lot of energy in our business activities and use raw materials containing chemical substances such as organic solvents. As there is a possibility that could have an impact on climate change and air pollution, the Nitto Group manages the three major factors of negative environmental impact, along with industrial waste, and is working towards a reduction of them.

Three Major Factors in Negative Environmental Impact	Approaches to Reduction
Amount of Energy Consumed	• Reduction in energy consumed in production through modification of production processes and conditions • Promotion of energy saving activities
Amount of Industrial Waste Generated	• Reduction of loss by utilizing MFCA* methods • Conversion to valuable resources with a change of waste form
Amount of Organic Solvents Used	• Development of adhesives without the use of organic solvents • Reduction of amount of organic solvents used through change of production process



Creating Added Value by Providing Products and Services Contributing to Environmental Conservation

To improve the Environmental Impact Value-Added Productivity Index, we work towards creating more added value as well as a reduction of negative environmental impact. One way is by providing sustainable products contributing to environmental conservation.

• Providing products and services useful to solving global environmental problems

By setting a new theme concerning the growing fields of "Green (environment)" and "Clean (new energy)," we engage in research and development aimed at the industrialization of those fields, as well as improving existing business.

• Providing sustainable products in our existing business

In our existing business, we also improve the development and refinement of products contributing to environmental conservation. We will continue to improve products contributing to negative environmental impact in our customers' production processes.

* MFCA (Material Flow Cost Accounting): One method of environmental accounting. By focusing on the loss of resources and energy in the production process, we can visualize waste from both physical and monetary sides. Yoshikuni Furukawa, belonging to Nitto's Sustainability Promotion Group, works in the diffusion of MFCA and had it ISO 14051 in 2011.

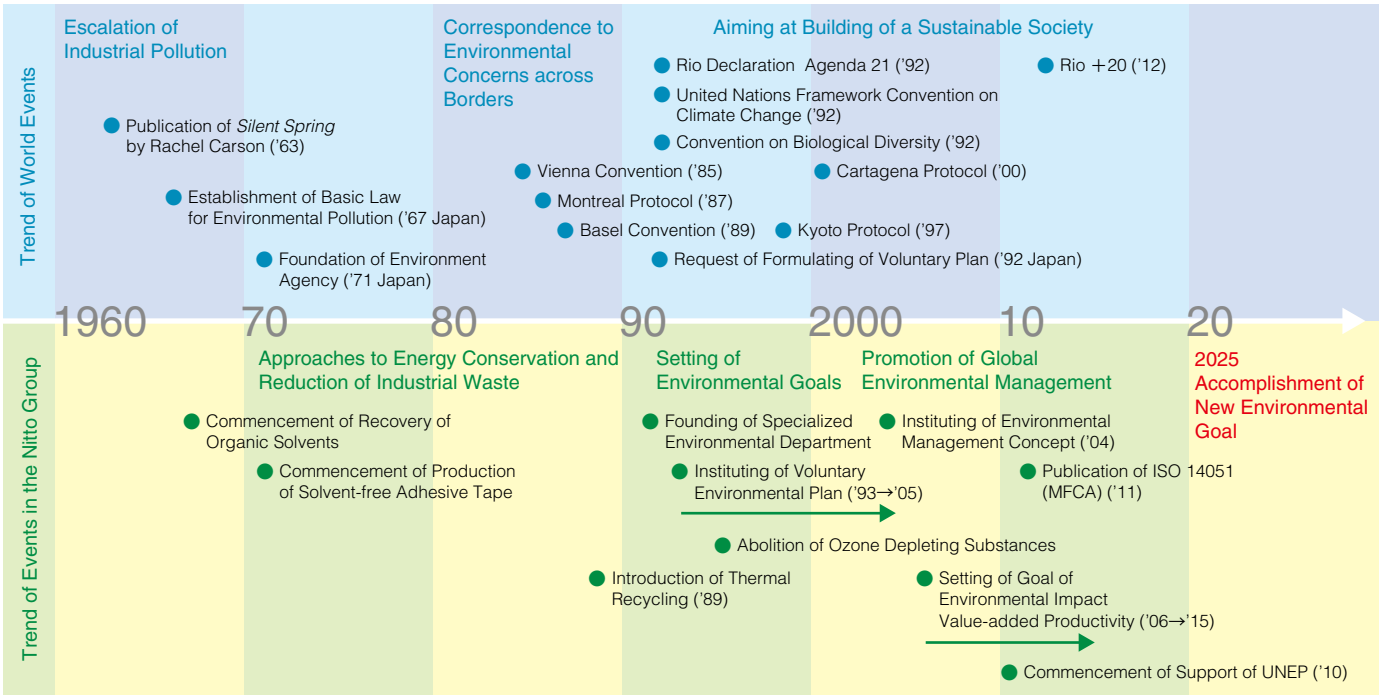
The Next 10 Years

Since 1993, we have been promoting environmental conservation activities by setting goals every 10 years. In 2015, a milestone of the present active period will be reached. However, it will be difficult for us to accomplish our goal of doubling the Environmental Impact Value-Added Productivity Index. Though we have steadily implemented activities to reduce negative environmental impact, production volumes have increased in response to changes in business circumstances. (Refer to next page) We consider that not having been able to create added-value consistent with the change has been a factor in the lack of improvement in the Environmental Impact Value-Added Productivity Index.

In the next decade, by making use of methods improving resource efficiency and management efficiency, such as Material Flow Cost Accounting (MFCA), we will continue to reduce the three aspects of negative environmental impact: the "amount of energy used," the "amount of industrial waste generated;" and the "amount of organic solvents used." Furthermore, we aim for minimization of environmental impact in not only within the Group, but also across whole supply chains. In addition, in order to increase added value, we will construct a mechanism for promoting the provision of products and services contributing to environmental conservation.

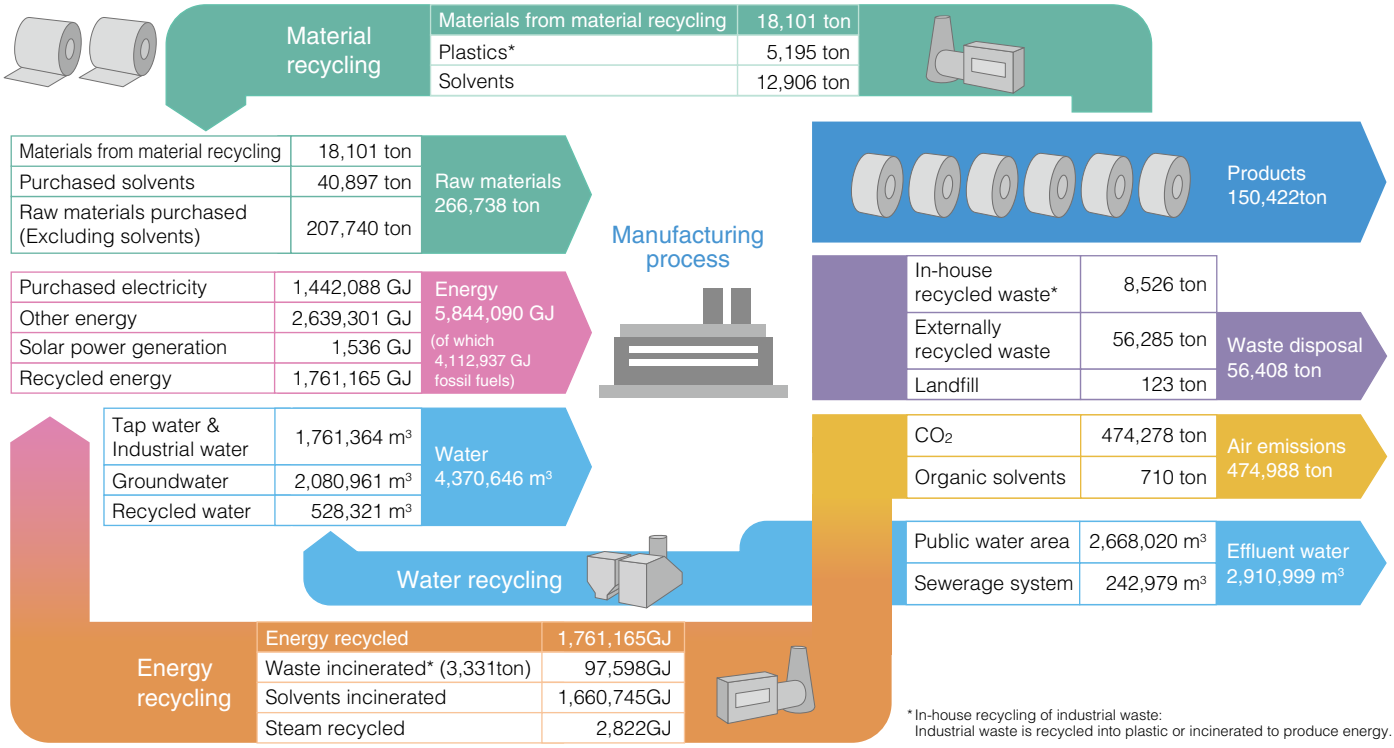
Aiming to contribute to the realization of a sustainable society, we will embark on a new theme from 2015.

Topics related to environmental conservation and trend of events of the Nitto Group



Environmental Conservation Activities

Environmental Impact of Our Business Activities – Material Flow of Business Activities (non-consolidated)



*In-house recycling of industrial waste:
Industrial waste is recycled into plastic or incinerated to produce energy.

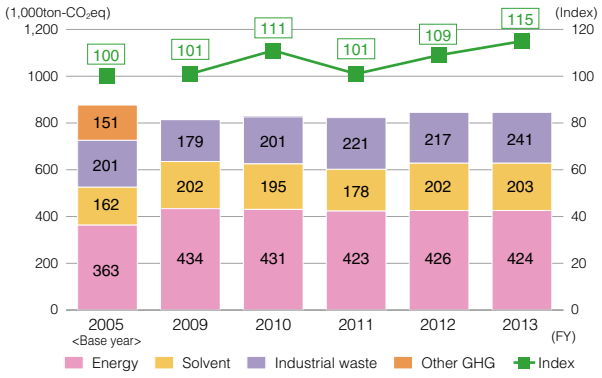
Environmental Impact Value-Added Productivity

Environmental Impact Value-Added Productivity in fiscal 2013

0.418 million yen/ton-CO_2eq Index*: 115

In fiscal 2013, the Environmental Impact Value-Added Productivity Index rose to its highest level of the past five years. This result was achieved because we were able to more than offset an increase in Environmental Impact (converting energy consumed, industrial waste generated and organic solvents used into CO_2 equivalent) in fiscal 2013 with greater Added Value.

Environmental Impact Value-added Productivity (Environmental impact and Relative index) (consolidated)



However, an index reading of 115 still seems a long way removed from our target of 200, or a doubling of the index by 2015. In order to achieve our goals, more reductions in Environmental Impact and greater generation of Added Value will be necessary.

For some years, our priority has been to reduce Environmental Impact, which has been increasing year by year. A reduction in the amount of energy used is the key to dealing with climate change, one of the major environmental issues. We will implement further reductions of energy used with a focus on changing of production processes, and an improvement in energy-saving activities.

* Index shows variation in Environmental Impact Value-Added Productivity by setting the index at 100 as of fiscal 2005.

Environmental Impact Value-Added Productivity (consolidated)

FY	2005	2009	2010	2011	2012	2013
Added Value (million yen)	318,098	298,890	332,153	300,365	332,860	362,594
Environmental Impact (ton-CO_2eq)	876,846	814,210	826,178	822,979	845,349	867,878
Productivity	0.363	0.367	0.402	0.365	0.394	0.418
Relative Index	100	101	111	101	109	115

Our Approach to Climate Change Issues

Our Policy on Climate Change

We are implementing reductions in CO_2 emissions in conformity with our Environmental Policy: “Helping to create a sustainable society by offering products and services.”

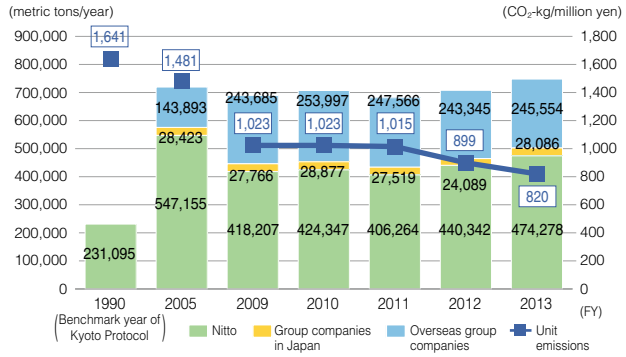
CO_2 Emissions (Scopes1+2)

Total CO_2 emissions in fiscal 2013:
747,918 metric tons (consolidated)

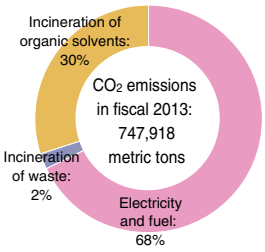
In fiscal 2013, our unit CO_2 emissions (CO_2 emissions per 1 million yen of production output) decreased to 820 CO_2-kg/million yen compared to the previous year, whereas total CO_2 emissions increased. Total CO_2 emissions increased mainly because the amount of energy used, which accounts for 68% of CO_2 emissions, did not decline.

In the future, we will implement the development of products and processes which are energy-efficient at the time of manufacture.

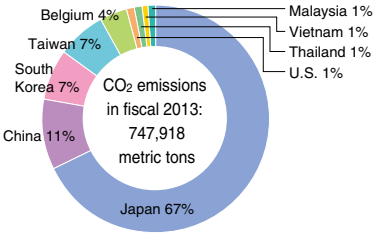
Total and Unit CO_2 Emissions (Scopes 1+2) (consolidated)



CO_2 Emissions by Source (consolidated)



CO_2 Emissions by Country (consolidated)



Scopes 1 and 2 described on this page indicate the scope of the GHG Protocol.
The Nitto Group releases information on climate change through the CDP.

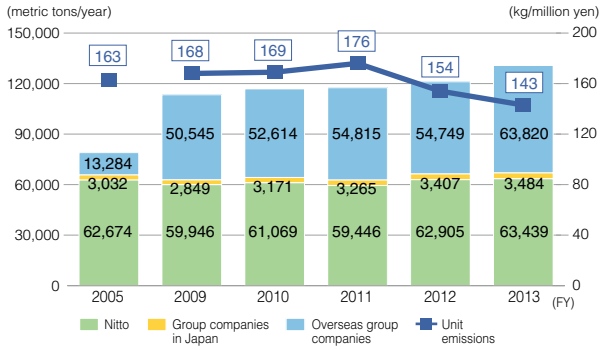
Amount of Waste* Generated

Unit generation of waste in fiscal 2013:
143kg/million yen (consolidated)

Waste is generated from corporate activity. Waste within the Nitto Group is mainly log roll edges of tape and offcuts of film generated from the cutting process. We try to reduce such loss through changing the production process. Furthermore, we recycle as much waste generated as possible.

*Waste: Total of industrial waste, general waste and scrap materials.

Total and Unit Generation of Waste (consolidated)

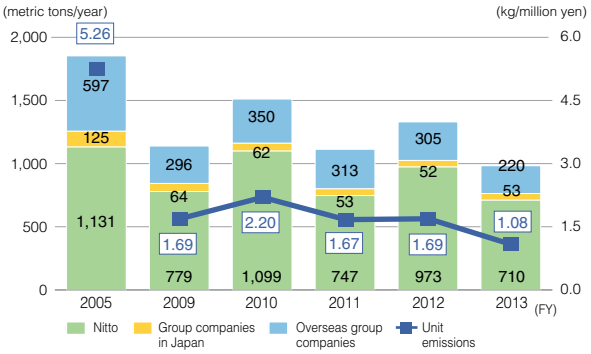


Amount of Organic Solvent Emissions

Amount of organic solvent emissions in fiscal 2013:
983 metric tons (consolidated)

Large amounts of organic solvents are used in the production of tape and adhesives. In order to reduce our environmental impact, we install incineration equipment used for solvent gasses or solvent recovery units, on every line as needed. In addition, we are engaged in developing adhesives without the use of organic solvents and in modifying the production process.

Total and Unit Organic Solvent Emissions (consolidated)



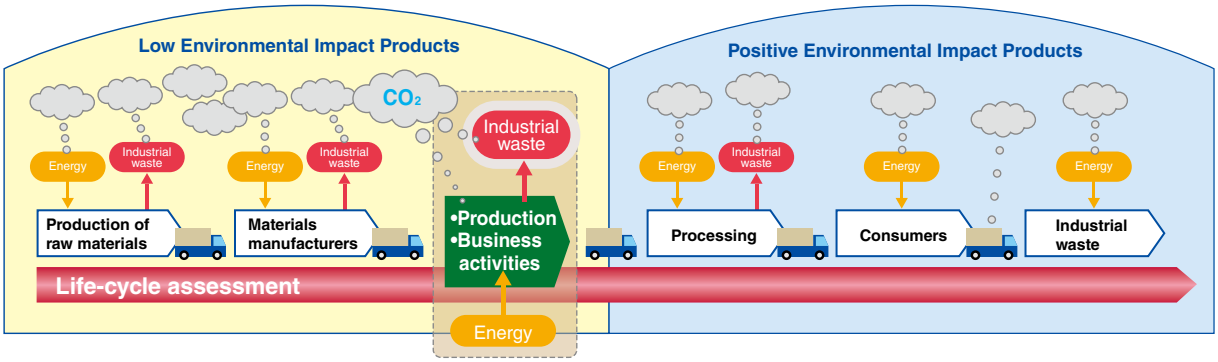
Environmental Conservation Activities

Contribution by Sustainable Products

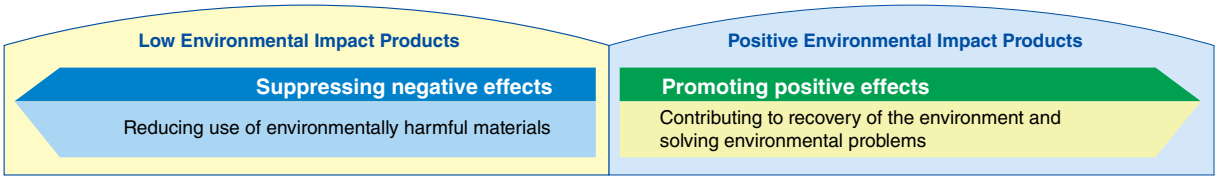
Products contributing to environmental conservation are referred to as “sustainable products” in the Nitto Group. We implement the development and provision of them.

By evaluating products according to the two criteria of “effectively utilizing resources throughout the life-cycle of products” and “being useful for solving global environmental problems,” we classify our products as “low environmental impact products” or “positive environmental impact products,” using our unique definition.

1 Life Cycle Assessment

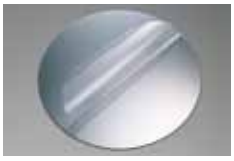


2 Global Environmental Problems



Examples of Sustainable Products


Brightness enhancing system for LCDs


Cleaning wafer


Polyimide seamless belt


Energy-saving desalination membrane for seawater and brine water


Highly-functional damping material


Halogen-free FPC


Non-halogen & non-phosphorous sealing foam


Non-halogen adhesive vinyl tape


Low-VOC, solvent-free, double-sided tape

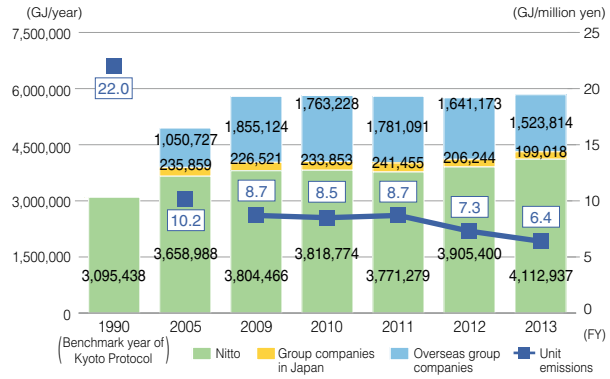

Double-faced adhesive tape with removability

Effective Utilization of Fossil Fuels

Amount of energy from fossil fuels used in fiscal 2013:
5,835,769 GJ (consolidated)

The exhaustion of fossil fuels used as raw materials or energy in business activity is a serious problem. With the aim of sustainable development, we put effort into the effective utilization of materials and energy by means of saving energy and reducing waste. In addition, we promote the introduction of raw materials from non-fossil fuels and renewable energy.

Total and Unit Fossil Fuels Used (consolidated)



Biodiversity Conservation

In order to contribute towards a sustainable society, Nitto has been involved in biodiversity conservation activities as a driving partner of Declaration of Biodiversity by Nippon Keidanren since 1997.

In conformity with the basic standpoint of this declaration, we approach business activities with due consideration to biodiversity.

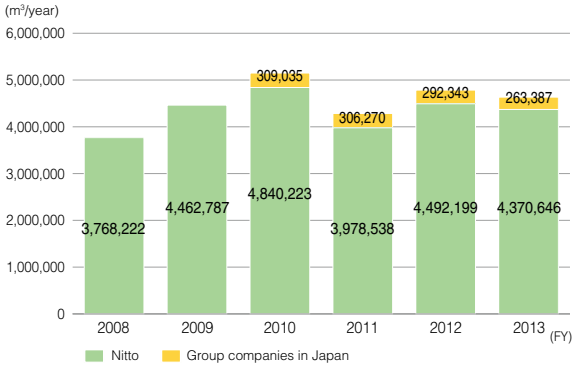
An entry in the Environment Photo Exhibition, Green Design Action 2013

Management of Water Resources

Amount of water consumption in fiscal 2013:
4,634,033 m^3 (domestic bases)

Large amounts of water are used in the production of display materials and electronic devices. We tackle the effective utilization of water resources by utilizing our membrane products and recycling drainage water. As much water is necessary in the production process, we do not manufacture our products in areas that suffer from physical and economic water scarcity (where consumption exceeds 75% of water resources). In discharging water used in the production process, we adequately process then drain it before it is released into the environment.

Water Consumption (including water recycled at bases in Japan)



Supporting UNEP Activities

The Nitto Group cooperates with the United Nations Environment Programme (UNEP) in playing an active role to realize a sustainable society and has been a supporting company since fiscal 2010. We support the publication and distribution of the Japanese version of *Our Planet* and *TUNZA*, which are official UNEP magazines.

Aiming at sustainable society

We support the work of UNEP