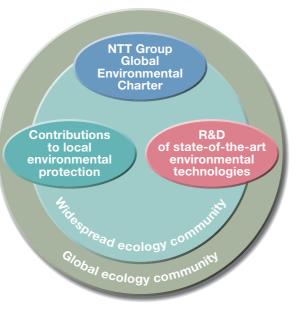
"NTT Group Ecology Program 21" Links Business Management and Environment

Environmental considerations are designing the corporate management of the future.

http://www.ntt.co.jp/kankyo/e/2002report/qa/chapter1/q04_2.html

The global environmental issues we now face are believed to be the result of our social systems. We hold ourselves accountable for the business activities associated with these problems. By recognizing and understanding these issues and their causes, we seek to achieve complete compatibility between our business activities and environmental protection toward supporting a sustainable society with less pollution for generations to come. Our basic approach for protecting the environment is expressed in the "NTT Group Ecology Program 21," which presents the Group's environmental protection activities and contributes to the broader dissemination of environmental information.



NTT Group Global Environmental Charter

We need to recognize the extent and gravity of current environmental issues, including global warming, ozone laver depletion, destruction of the tropical rain forests, desertification, acid rain, and contamination of the oceans. We must also recognize the degree to which these issues are the direct result of current societal systems, which are intimately linked to corporate activities

As a business enterorise, we have a responsibility to dedicate ourselves to harmonizing our business activities with global efforts to protect the environment in order to realize sustainable growth and to eliminate problems for future generations. Based on this fundamental recognition, we here establish the NTT Group Global Environmental Charter to clarify our basic policies and actions concerning these issues.

Basic Principle

To ensure the harmonious co-existence of people with nature and to achieve sustainable growth, we will do our utmost to protect the global environment in all our corporate activities.

Basic Policies

1. Compliance with laws and regulations and fulfillment of social responsibilities To observe all laws and regulations regarding environmental protection issues and to carry out our responsibilities as global corporate citizens. 2. Reducing environmental loads To establish action plans for energy conservation (reduction of greenhouse gas emissions), resource conservation (conservation of materials such as paper) and waste reduction, and to strive to make continuous improvements. 3. Establishing and maintaining environmental management systems To establish an environmental management system enabling each business unit to pursue voluntary environmental protection activities. 4. Developing environmental technologies To contribute to the reduction of environmental load through various areas of research and development, including multimedia services. 5. Social contribution efforts To promote daily environmental protection efforts in coordination with citizens and government agencies. 6. Disclosure of environmental information To enhance both internal and external communications through the disclosure of environmental information.

Long–Term Targets (2010)

Reduce virgin pulp consumption by at least 20% of 1990 levels Reduce CO₂ emissions below 1990 levels

ion of global warming

Reduce the volume of waste by at least 85% of 1990 levels

NTT Group Global Environmental Charter

http://www.ntt.co.jp/kankyo/e/2002report/ga/chapter1/g04_1.html

The NTT Group Global Environmental Charter affirms the Group's earnest responsibility and commitment to global environmental issues, and is a first pillar of the "NTT Group Ecology Program 21" together with the "Contributions to Local Environmental Protection" and "Research and Development of State-of-the-Art Environmental Technologies." The policies of the charter govern detailed plans, including reductions in environmental loads and the establishment and maintenance of

Contributions to Local Environmental Protection http://www.ntt.co.jp/kankyo/e/2002report/ga/chapter1/g07_1.htm

We believe it is important to develop environmental protection activities on a global scale and to start these activities locally. Therefore we have positioned "Research and Development of State-of-the-Art Environmental Technologies" as the second pillar of the "NTT Group Ecology Program 21" and will focus on environmental protection activities though projects deployed in communities. Some of the leading activities are the cleaning volunteer activities which have been continuing in each region since 1985, and the "Ecology Community Plaza" established for the purpose of developing solidarity within the local community.

Ecology Community Plaza

In the "Ecology Community Plaza," the NTT Group has built a network to study global environmental conservation and to provide and exchange information with people in the community. For example, NTT EAST lwate Branch and NTT WEST Shiga Branch opened plazas as model branches, and NTT EAST Aomori Branch set up a plaza on the Internet. These plazas are engaged in community-based activities for environmental protection in cooperation with local governments. Building on the results of the model branches activities, we are planning to develop the plaza nationwide.

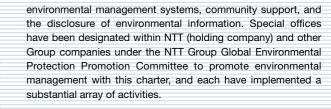
To celebrate the opening of the Ecology Community Plaza, we launched "NTT WEST Operation Clean Environment 2001 in



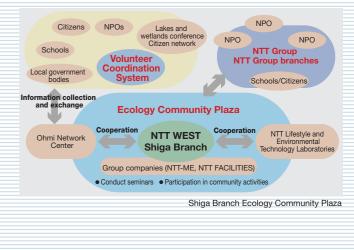
Research and Development of State-of-the-Art Environmental Technologies

http://www.ntt.co.jp/kankyo/e/2002report/ga/chapter3/g05 1.html

The NTT Group considers "Research and Development of State-of-the-Art Environmental Technologies" as the third pillar of the "NTT Group Ecology Program 21," because environmental technology R&D is a vital component in resolving global environmental problems. Among our group companies, NTT Lifestyle and Environmental Technology Laboratories and NTT Telecommunications Energy Laboratories are core research groups taking initiatives in these areas.



Shiga," with the goal of protecting Lake Biwa. As a part of the Ecology Community Plaza, NTT EAST lwate Branch and NTT Lifestyle and Environmental Technology Laboratories hosted a workshop, providing an opportunity for exchanging ideas aiming to promote and establish an environmental education. The enriching dialogue that took place from four different locations within the prefecture was broadcasted through a TV conference system connected to the information highway.



Main issues of environmental research and development are (1) structuring a system to achieve the development of a sustainable society by the use of IT, a roadway environmental assessment system, a digital testing system, and an electronic voting system; (2) development of fuel cells, a recycling-system for discarded optical cables and a fuel reforming machine for diesel engines.

(Details of these technologies are provided on pages 13-16.)