1 Major action goals and achievements

This chapter describes the goals to be met by fiscal 2000, as established in 1991, as well as recent data on paper resource management, prevention of global warming, waste management, and ozone layer protection. The figures provided in this chapter have been taken from the former NTT, prior to its reorganization. Data for CO_2 emissions include figures for NTT DoCoMo and NTT Data.

◆*Paper resource management*

Over 95% of paper resource consumption at NTT Group is accounted for by telephone directories. The paper resource management for telephone directories is carried out primarily by increasing the ratio of recycled paper. The ratio in fiscal 1990 was 34%, increasing to 48% in fiscal 1998. Despite the technical difficulty, it has become feasible to increase the recycle paper rate for extremely thin paper, as in Telephone directries. It is due to the cooperative efforts of paper manufacturers. In 2001, we plan to introduce a closed loop system that will produce new telephone directories from used directories. We are also working on reducing office paper consumption (primarily copying paper) by promoting a paperless environment (e,g,relying on projectors at conferences and e-mail) and by using both sides of copy paper, reducing paper consumption to one fourth of 1990 levels. Total pulp consumption has been reduced about 20% since fiscal 1990, achieving the target set in 1991.

(For more information, please refer to p.14.)

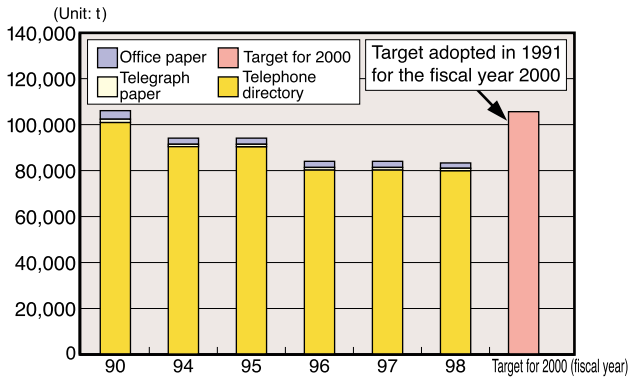

Fig. 2.1-1: Historical development of pure pulp consumption

◆*Preventing global warming*

Approximately 80% of CO_2 emissions attributed to the NTT Group comes from consumption of electricity purchased from electric power companies. Most power consumption occurs at telecommunications facilities, such as switchboards. To cope with the rapid increase in demand for cellular phones and internet access, we are currently involved in significant upgrades of our telecommunications facilities. We successfully reduced CO_2 emissions by some 6,000 t in fiscal 1995 through energy conservation campaigns and other efforts. From 1997, Group-wide initiatives including Total Power Revolution, which encourage the development of energy-efficient equipment from early R&D stages, have hold CO_2 emission increases to minimum levels, as indicated in *Fig. 2.1-2.* About 5% of CO_2 emissions derive from 40,000 company vehicles. These levels have been reduced 15% from 1990 levels.

Fig. 2.1-3 shows the level of energy conservation (CO_2 emission/sales). Energy consumption per sales exhibits a decreasing trend, demonstrating the progress of energy conservation actions.

The target figure adopted in 1991 was to reduce emissions below 1990 levels by 2000. Rapidly increasing telecommunications demands has made achieving this goal fairly difficult, but we continue to strive for meeting this target by the next fiscal year.

(For more information, please refer to p.17.)

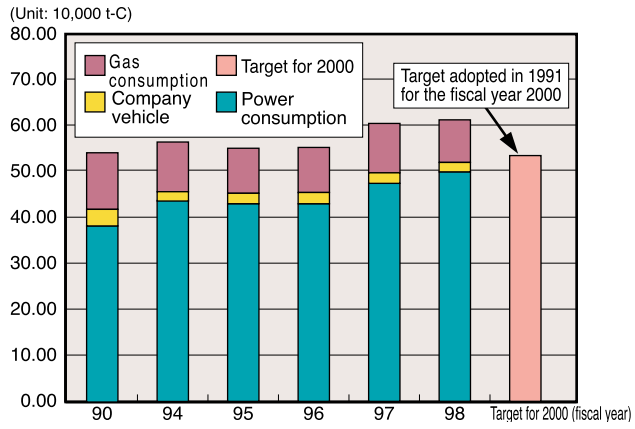

Fig. 2.1-2: Historical development of CO_2 emissions

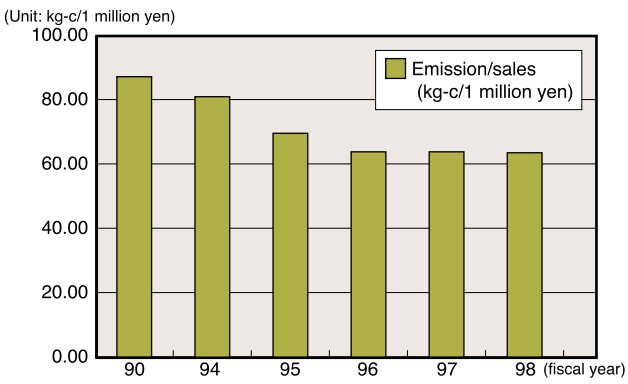

Fig. 2.1-3: energy consumption per sales

◆*Waste management*

Industrial wastes generated by NTT Group operations mainly originated from communication facilities and equipment, civil engineering projects, construction projects, and offices. Industrial post-recycling wastes that require final disposal amount to about 120,000t. As indicated in *Fig.2.1-4*, over 70% of this waste is made up of material from civil engineering and construction projects. Including these figures, the volume requiring final disposal has been reduced to 27% of 1990 levels, due to improved recycling ratios and other factors. This achievement exceeds the target adopted in 1991 by a factor of nearly three. *(For more information, please refer to pp.20 and 25.)*

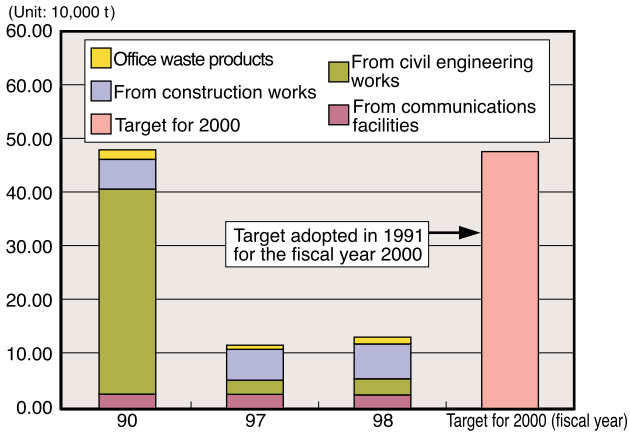

Fig. 2.1-4:
Historical development of waste products put in final disposal

◆*Protecting the ozone layer*

In order to realize the complete elimination of first-time use of ozone depleting substances such as CFCs, as prescribed in the Montreal Protocol, we have ceased the use of CFCs for the detection of cable gas leakage, washing crossbar switch contacts, and washing semiconductors. By the end of fiscal 1994, we achieved complete termination of first-time CFC use. We are currently working for further reduction of CFC use by replacing CFC-reliant turbo refrigerators. *(For more information, please refer to p.28.)*