

“Tokyu Corporation Eco Up Program”

Company-wide Initiatives

The Tokyu Corporation Eco Up Program is this company's unique environmental management system, which sets out environmental objectives that correspond to the form of our operations, based on data from a study of our environmental impacts. As a part of this, each part of our company sets out its environmental targets for the localities where they are based, and tackles these.

It was introduced in fiscal 1999 as the first step towards the company-wide creation of an environmental management system based on ISO 14001, and in fiscal 2000, 253 targets had been identified and were being tackled at 184 of our business locations.

Initiatives were successively introduced at each location, starting with such basic activities as reducing the quantity of paper used, and conserving electricity and water, etc.

To promote these activities, a model workplace was chosen for each area of business and measures that emphasized educational activities were put into effect, such as inspections by the chairpersons, etc. of committee of environmental activities.



Acquisition of ISO 14001 Certification by Departments at the Headquarters

In November 2000, the departments based in our Headquarters acquired certification. The Headquarters office consists of a general management department and management departments for six areas of business. It is an organization undertaking the planning, design, construction and running of our business activities, and is tackling environmental conservation activities as the decision-making hub of Tokyu Corporation and the group's various businesses. The following are set out as priorities in our Headquarters' environmental policy:

“Green purchasing”, which gives priority to purchasing environmentally friendly goods

The recycling of construction wastes and others, and the reduction and correct disposal of waste materials

Energy conservation activities, such as the efficient use of electricity in the running of trains and trams

The reduction of the environmental impacts by prior evaluation of the effect of new projects and large-scale construction work on the environment

Initiatives Closer to Home

In addition to being thorough about switching lights off during the lunch break and halving the number of elevators in operation outside business hours, in order to achieve the target of a 2% reduction in the quantity of electricity used, we are promoting Wednesdays as “Energy Conservation and Families Day”, with the aim of eliminating

the practice of working overtime on that day. Furthermore, in order to promote the recycling of resources, waste products are separated into 11 categories for recycling; these categories include printer and copier paper, newspaper, magazines, and advertising leaflets.

Spreading ISO 14001 Techniques in the Workplace

Techniques, such as the environmental impact assessments introduced at the Headquarters have been introduced into model workplaces from fiscal 2001, and these will be successively implemented in our offices, eventually covering all of them.

Implementing Education Programs for Employees

In fiscal 2000, in addition to implementing the education of around 1,200 employees at the Headquarters with regard to global environmental problems and ISO 14001, we trained 20 people as internal environmental auditors.

Establishing the New Tokyu Environmental Awards System

In order to raise our employees' consciousness of environmental problems, we established a new awards system, which began soliciting applications from fiscal 2000. The awards will be distributed in June each year.



Certification by Departments at the Headquarters

Examples of Initiatives at the Headquarters and Model Workplaces in Fiscal 2001

Name of department	Environmental objective	Environmental target for fiscal
General Affairs Division	Promotion of green purchasing	A 5% improvement in the proportion of eco goods among furniture and office supplies
Finance & Accounting Division	Promotion of environmental communication	Collection of information from financial institutions and distribution of our company's environmental report
Vehicle Inspection Section	Reduction of noise and dust pollution	Reduction of early morning and late night noise levels by 2% (compared with fiscal 2000 levels)
Building Management Division	Separation of wastes and reduction of waste levels	Requests for the cooperation of tenants, development of facilities for the separation of wastes
Real Estate Development Division	Recycling construction wastes	Maintain the improvement in the recycling rate (91% in 2000)
Hotel Operations	Reduction of wastes	Recycling 100% of guests' feather quilt stuffing
Resort Division	Reduction in the quantity of energy and water used	5% reduction (compared with fiscal 2000 levels)

Environmental Accounting (fiscal 2000)

This is summary data based on “the Guideline on the Evaluation and Publication of Environmental Protection Costs,2000” by the Environmental Agency of Japan.

Environmental Conservation costs (Investment)	: ¥ 2,618 million
(Expenses)	: ¥ 582 million
Benefits of environmental conservation	: ¥ 33 million

Environmental Data(fiscal 2000)

CO2 emissions from energy use in our business	: 58,857 tons (carbon equivalent)
Water consumption	: 3,131 km ³
Wastes discharged	: 10,998 tons
Waste recycling ratio	: 33.1%

History of Our Environmental Activities

1972	Toyku Greening Campaign “Green Present” began
1974	Tokyu Foundation for Better Environment established
1980	Lightweight stainless steel Type-8090 rolling stock introduced
1989	“Tama Den - en Toshi”(Tama Garden City)receives the Japanese Prime Minister's “Green City Prize”
1997	The “Tokyu Group Philosophy System” is decided upon and its new slogan “Toward a Beautiful Age - the Tokyu Group” established
1998	Environmental Activities Committee inaugurated
1999	“Tokyu Corporation Eco Policy” decided upon Nagatsuta Rolling Stock Maintenance-CENTER acquires ISO 14001 certification Tokyu Corporation Eco Up Programme introduced

(Highlighting fiscal 2000)

August 2000	Establishment of the Environmental Policy of Tokyu Corporation Headquarters
November	Headquaters departments acquire ISO 14001 certification
December	First Tokyu Corporation (Commemoration in 5th June)Environmental Award Scheme established

Company Outline (As of 31st March,2001)

Head Office	: 5-6, Nampoedai-cho, Shibuya-ku, Tokyo, Japan 150-8511
Telephone	: 81-3-3477-6662
Facsimile	: 81-3-3461-0404
Date of establishment	: 2nd September,1922
Capital	: ¥ 107,542 million
Revenue from operations	: ¥ 292,499 million
Number of Employees	: 4,241
Stock Listing	: Tokyo Stock Exchange

Other publications

Tokyu Corporation Annual Report 2001

Editing/Publication: Tokyu Corporation / Corporate Headquarters

The Tokyu Group (English version)

Editing/Publication: Tokyu Public Relations Committee



Aiming for harmony with the natural environment

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2001 EDITION

Aiming for harmony with the natural environment



August 2001



TOKYU CORPORATION



In September 1997, the Tokyu Group established its group philosophy system, which places value on “beauty”. Within that management policy system, the idea of “harmony with the natural environment” is declared. In order to promote this policy and environmental conservation activities, this company has established a department to handle environmental issues. It sets up the “Tokyu Corporation Eco Policy”, a management policy relating to the environment; it introduced the “Tokyu Corporation Eco Up Program”, a unique environmental management system to reduce environmental impact throughout our business. Moreover, in order to improve the quality of our environmental conservation activities, we emphasize raising the environmental consciousness of our employees, so we established a company-wide awards scheme for environmental-related proposals and business activities and also we introduced environmental education programs for our employees. Furthermore, the departments of the Headquarters that have decision-making functions have acquired ISO 14001 certification. Through the

spread of ISO management techniques throughout the company, we intend to improve the quality of our environmental activities even further. Thus far, this company's initiatives have placed considerable emphasis on the provision of a “comfortable and convenient life”, however, we are additionally required to provide a “sustainable life style that protects the environment”. For example, train and tram transport, which is at the heart of our business, is an energy-efficient transport system, so we believe that promoting a switch to train and tram from other forms of transport will be useful in reducing the environmental impact on the whole of society. In addition to striving for service improvements, we will actively take steps to harmonize our activities with the environment throughout our business area. Moreover, in our real estate development activities, until now we have aimed for development that takes the natural environment into consideration to a great degree. In the future, from the view point of the lifecycle cost analysis, we will raise proposals for the way of life which reduces environmental impact as a whole. In addition, in our hotel, resort and other ancillary businesses, we have initial model projects aimed at reducing the environmental impact that our operations impose in each site. We will build upon these and undertake cross-sectional activities. In the future, while actively tackling environmental activities, we wish to make concerted efforts to disclose as much information as possible about the content of these activities.

August 2001

Kiyofumi Kamijo

Kiyofumi Kamijo
President and representative director Tokyu Corporation

Tokyu Corporation Eco Policy

Environment-Related Management Policy

We recognize our status as an interested party in the issue of worsening global environmental problems and will try to minimize the natural environmental impact imposed by our business activities. Furthermore, in order to aim for the realization of a sustainable development of society and contribute to our surrounding community, we will be conscious of our social responsibilities as a corporate citizen and the whole company will undertake environmental activities through the following policy.

1. We will strive for the efficient use of resources and energy and undertake projects that give consideration to lessening the impact on the environment.
2. We will place a high value on our relationships with the people of the areas where we do business and contribute to the local community through the provision of a pleasant and comfortable living environment.
3. With regard to environmental problems, we will raise the consciousness of each and every employee through environmental activities at the localities where they are based.

Railway



Type 3000 Vehicle

Outline of Tokyu's Train Network

Train lines: 7 lines (Toyoko Line, Meguro Line, Oimachi Line, Den-en Toshi Line, Tokyu Tamagawa Line, Ikegami Line, Kodomo-no-kuni Line)

Tram lines: 1 line (Setagaya Line)
 Number of stations: 100 (90 railway stations, 10 tram stations)
 Distance covered: 102.1 km
 Number of passengers: 946.85 million people (fiscal 2000)

Consideration for the Environment in Our Operations

Improvement in the efficiency of electricity consumption (tackling global warming)

In fiscal 2000, 349 million kwh of electricity was consumed in the running of our railway operations (a 3.7% increase on the previous year), accounting for 77% of the total amount of electricity consumed by the company. 279 million kwh was used for powering the trains and trams (a 2.8% increase), while 70 million kwh was used in incidental facilities, such as stations (a 7.2% increase). This tendency toward an increase in consumption arises from progress in recent years on construction work aimed at service improvements, for example, the increase of passenger capacity. However, the following initiatives are being undertaken, with the aim of controlling global warming.

Energy-conserving rolling stock

We have made progress with the introduction of VVVF (variable voltage, variable frequency) controls and regenerative brake equipment, not only to conserve energy, but also with the aim of making maintenance more efficient. The environment was taken into consideration in the design concept of the Type-3000 rolling stock that was introduced in April 1999 - it consumes 1.7 kwh of electricity per kilometer, a reduction of over 30% compared with the vehicles used until now.

Electricity conservation by members of the train crew

In addition to making efforts to improve drivers' skills, as well as making use of coasting and improving the precision of stopping positions, we are tackling the conservation of electricity by such means as the appropriate use of air conditioning facilities. Furthermore, in fiscal 2000, we implemented environmental education program for all train crew and are striving to raise employees' environmental consciousness.



The experimental installation of solar power generation

Energy-conserving station facilities

In fiscal 2000, we installed nine sensor-activated escalators at Tamagawa and Aobadai stations and we are working to improve the efficiency of electricity consumption. Moreover, we are also undertaking inspections and examinations relating to the introduction of new technologies, such as the experimental installation of solar power generation at Minami Machida Station. (In fiscal 2000, 2,101 kwh of electricity was generated by means of solar power at Minami Machida)

Improving the recycling rate of waste products (forming a recycling-based society)

As an important environmental aspect of our train operations, waste products are generated in stations, and through maintenance and improvement work. We collect the waste disposed of at our stations by passengers. In fiscal 2000, this waste amounted to 4,539 tons. Before being collected, waste is separated into three types - paper, cans and bottles, and general waste; the recycling rate is 52.2% (an improvement of 15.7% on the previous year). Furthermore, from this fiscal years, ordinary



Tripartite Recycling container

Energy - conserving rolling stock

carriage type	regenerative brake equipment	VVVF		
16 leading companies	65.7% (64.4%)	11,139 (10,894)	25.7% (24.3%)	4,352 (4,103)
Tokyu Corporation	100% 98.7% (98.3%)	1,102 1,048 (1,036)	38.7% 32.1% (31.8%)	427 341 (329)

VVVF: This is a kind of electricity-conserving rolling stock in which direct current from a Van Der Graaff generator is converted into alternating current by means of a VVVF inverter, and this drives an alternating current motor.

train tickets will be recycled as toilet paper for use in station toilets, while plastic train passes will be used as a reducing agent in shaft furnaces. Rolling stock that has been replaced because it is decrepit, trolley lines and concrete sleepers are recycled as metallic materials such as stainless steel and copper, or as macadam.

Control of noise and vibration, etc. (coexistence with the surrounding communities)

As our company's lines pass through crowded urban areas, we are tackling issues relating to environmental conservation and coexistence with these areas, such as measures to deal with noise and vibration, from first principles. Currently, in addition to undertaking studies that should reveal noise and vibration levels, we are continuously implementing measures, such as the laying of long rails, heavier rails, anti-vibration rails, and macadam to act as a silencer; the installation of high sections (silencing walls); the laying of low-noise points; and the introduction of low-noise rolling stock, where these are needed.

The beautification of the environment along the railway lines

We are promoting the beautification and afforestation of stations sites beside our railway line through the planting of flowers. In fiscal 2001, the "flowering" (beautification through the planting of flowers) of sites along the Setagaya Line will be undertaken by volunteers from among our employees.

Town Planning

Outline of Our Operations

Real estate sale operations: Have completed the development of 3,572 ha of land (as of 31st March 2001)

Land readjustment, development of housing and land for single family house, sale of commercial real estate, sale of multiple dwelling

Real estate usage operations: Development and management of shopping centers covers a floor area of 26,000 square meters
 Land use consulting, lease of buildings and land lease for commercial use

Real estate leasing operations: Area of buildings leased - 554,000 square meters (as of 31st March 2001)

Consideration for the Environment in Our Operations

Environmental symbiosis initiatives in our housing

Those sold in fiscal 2000 (22 houses in the Aoba-ku area of Yokohama)
 Making buildings airtight and well-insulated (by making insulating material thicker and eliminating gaps, we are making it more difficult for hot or cold air



Environmental symbiosis initiatives in our housing

to escape)
 Total enthalpy-type 24 hour ventilation system (this system does not just pump in air directly from outside the building, but adjusts the temperature of the air to the temperature inside the room, making heaters and air conditioners more efficient)
 Double-glazing all windows (this has about double the insulating effect, making heaters and air conditioners more efficient)
 Solar power generators (generates electricity via panels installed on the roof)
 Heat pump water-heating systems that utilize waste heat from air conditioners (when the air-conditioning is switched on, the heat disposed of via the external machine is recycled and used to heat water)
 Concrete structures that store heat (radiate heat at night time that has been stored in concrete structures during the day)

Pavements that allow the permeation of water (controls the heat island phenomenon by returning rainwater underground)
 The installation of rainwater collection tanks (saves rainwater in a water storage tower for later use in sprinkling, watering plants, etc.)
 Roller awnings (more effective in providing shade from the sun than curtains or blinds)

Environmental symbiosis initiatives in our multiple dwelling (Idios Azamino)

Those sold in fiscal 2000 (13 buildings 3-story reinforced concrete structures in the Aoba-ku area of Yokohama

The use of concrete that will last 100 years
 By making the frame of the building more durable, thereby giving it a longer life, we are striving to reduce the quantities of resources consumed and wastes generated through the rebuilding and replacement of buildings.
 Skeleton Infill (SI) housing
 We are responding to people's long-term lifestyles with these structures that separate the frame of the building from the facilities and interior decoration and, through the concentration of external space for vertical pipes, make changes to the plans of the house, including changes to the location of sinks, relatively simple.

Environmental symbiosis initiatives in our construction operations

In addition to the use of earth left over from construction at other construction sites, thereby achieving in-house recycling and reducing the quantity of left-over earth by 8,332 tons, we are tackling the recycling of construction wastes.

Consideration for the environment at Cerulean Tower

Cerulean Tower, a multi-story building (6 underground floors, 41 above-ground floors, floor area of 106,000 square meters), comprising a hotel and offices, started

operation in April 2001 in Tokyo's Shibuya Ward in fiscal 2000.

The environment was taken into consideration in a variety of ways during the planning stage, and the following facilities were introduced:

Peak cuts in daytime electric power have been achieved through an Ice thermal storage system, which has allowed 3,175,000 kcal (or, 3 hours worth) of the peak load of 8,165 kcal of power to be derived from the radiation of stored heat
 Use of HCFC (hydrochlorofluorocarbons) (R123), which has low ozone destruction and global warming coefficients, in new-refrigerant freezers
 The re-use of waste water from rain and baths to flush toilets, via a reclaimed water storage capable of supplying 250 cubic meters of reclaimed water.
 The efficient use of energy via co-generation facilities (800kw gas engines, 2 units)
 The reduction of nearby obstacles to television reception through the use of electric wave-absorbing materials
 The introduction of a food waste disposal machine that reduces waste to one-tenth of its original quantity by means of microbial decomposition, and the use of the resulting compost as fertilizer



Idios Azamino

Results of Green Purchasing and Waste Recycling in Fiscal 2000

	Green Purchasing		Waste Recycling		(Unit: tons)
	Recycled asphalt	Recycled macadam	Concrete/asphalt aggregate	Other	
Development work on housing sites		231	2,508	53	
Readjustment work	120	5,027	475	27	
Construction of new multiple dwelling		2,294	0	174	
Total	120	7,552	2,983	254	

In addition, in the construction of new multiple dwelling, 177 tons of recycled steel frames and iron bars is used.

Hotel and Resort Operations

Outline of Our Operations

The Tokyu Inn chain of hotels 45 hotels across the country (36 directly-run), 9,893 guest rooms (as of the end of March 2001)

"Grand Deco Hotel and Resort"
 Timeshare resort "Bigweek"
 Management of golf courses (8 courses in Japan)
 Swimming clubs, sports clubs, etc.

consecutive nights at our hotels hang a "green card" on the doorknob of their room, the hotel staff will make the bed without actually putting new sheets on it or replacing the guest's cotton kimono. Through this, we are reducing the environmental impacts imposed by dirty water emissions from laundry. Furthermore, at the Hotel Grand Deco, we have been promoting the spread of this system through the awarding of coupons to guests who participate in it.

Consideration for the Environment in Our Operations

Introduction of "green cards" in our Tokyu Inn Chain

A system has been introduced at our directly-run hotels whereby, if guests staying



green card

Environmental Activities Within the Tokyu Group

Tokyu Foundation for Better Environment

This was established in 1974, to promote the cleaning-up of the environment in the Tama River and the surrounding river basin. Every year, the foundation invites the submission of research projects that would be useful in the environmental purification of the Tama River; by the end of fiscal 2000, the foundation had granted a total of ¥1.05 billion to 388 research topics.



Surveying on The Tama River

ISO 14001 Certification Acquisition Results of the Tokyu Group

Nagoya Plant, Shiroki Corporation	February 1998
Faculty of Environmental and Information Studies, Musashi Institute of Technology	October 1998
Fujisawa Plant, Shiroki Corporation	December 1998
Nagatsuta Rolling Stock Maintenance -CENTER, Tokyu Corporation	March 1999
Technology Research Institute, Tokyu Construction Co., Ltd.	September 1999
Head Office and Tokyo Branch, Tokyu Construction Co., Ltd.	March 2000
Yoga Branch, Tokyu Community Co., Ltd.	March 2000
Headquarters, Tokyu Corporation	November 2000
Head Office and all branches, Tokyu Construction Co., Ltd.	March 2001
Kimi-no-mori Golf Club, Tokyu Resort Service Kanto Co., Ltd.	March 2001
Nagoya Tokyu Hotel, Tokyu Hotel Chain Co., Ltd.	March 2001



Cerulean Tower