Environmental efforts within the diverse businesses of our group companies

The JR East group is active in a wide variety of businesses, such as transport, shopping centers, retailing, real estate, cleaning, and facility maintenance.

Each group company is working to satisfy both "business and protection of the environment", while utilizing the characteristics of their own businesses.

In this section, we introduce the efforts at four group companies and JR East Station Building Committee as revealed during a round-table discussion with representatives of the companies and the Committee.

Greening building rooftops

Coordinator: I have heard that JR East Consultants Company is promoting "rooftop afforestation" to reduce the environmental burden of facilities.

Mr.Oguchi: Yes, we began this initiative in 2004. At present,



Promotion of rooftop afforestation on a station building (Lumine Kitasenju store)

Mr. Yutaka Oguchi, Planning Department Manager, JR East Consultants Company

rooftop afforestation has been introduced at 11 locations such as station buildings and the offices of our group companies. In recent years, awareness of the heat-island phenomenon as an environmental issue in urban areas has intensified. We decided that the JR East group could adopt rooftopafforestation as one of its environmental activities and also that it could form one of the

services we offer as a construction consulting company. Right from the start, JR East Group already had many "candidate sites" for rooftop afforestation, station buildings especially.

Coordinator: Have you seen any benefits from this rooftop afforestation?

Mr.Oguchi: Yes. We first gained energy savings from air conditioning because the vegetated area works as an effective heat insulator for buildings. In addition, the greenery enhances the aesthetics of buildings for recreation and relaxation. I should also point out that by using a special soil mix, which is lighter than water, afforestation can be achieved without needing to reinforce building structures.

Coordinator: Was there any trouble in introducing rooftop greening to the 11 locations?

Mr.Oguchi: Yes. Since each station building company had to bear the cost of the afforestation, we needed to visit them several times and explain the plan thoroughly to gain acceptance. However, since the Lumine Company agreed with the introduction at an early stage, we were more successful in promoting the idea to other companies.

In the future, we plan to propose eco-stations that have a lower burden on the environment.

From plastic bag to "eco-bag"

Coordinator: Many companies in the JR East Group are in the distribution and retail industries, so reduction of waste must be an important issue. Please tell us about initiatives being undertaken at East Japan Kiosk Co., Ltd. (now JR East Retail Net Co., Ltd.).

Mr.Yamamoto: At NEWDAYS, which is a convenience store chain with locations in our stations, we rolled out the "Suica Eco-Bag Campaign" as an event to mark the 5th anniversary of this business.

The aim is to reduce the number of plastic bags we use. It is said that 30 billion of them are disposed of every year in Japan. Based on the concept of reducing waste, we provided eco-bags made of cloth, which can be washed and used repeatedly. We also carried out follow-up campaigns to give discount points to those who used the eco-bags when making purchases.

Coordinator: So NEWDAYS is actively engaged in down-to-earth activities for the environment, isn 't it?

Mr.Yamamoto: Yes, we are working on down-to-earth environmental activities. They are really tiny ideas, such as putting reflective plates inside electric advertising displays to create the same brightness with half the number of fluorescent bulbs. We have reduced the thickness of plastic bags by a matter of microns. In addition, we have begun to look at the recycling of

foods. In our offices too, we are working to "eliminate excess and waste", save energy, and reduce waste.



Mr. Shinya Yamamoto, Corporate Planning Department Manager, East Japan Kiosk Co., Ltd. (now JR East Retail Net Co., Ltd.)

Grass-roots environmental management

Coordinator: JR Utsunomiya Planning & Development Co., Ltd. involves all employees in "environmental management".

Mr.Sekiya: Taking "JR East Eco Activities" *as our reference, thinking about what we could do was a stimulus to drive our environmental initiatives. Our company operates retail outlets inside station premises in the Omiya and Utsunomiya areas. We wan-



Mr. Hiroshi Sekiya, Administrative Manager, JR Utsunomiya Planning & Development Co., Ltd.

ted to take some proposals, such as brownouts, reusing copy paper, and separation of waste to our retail outlets. But before taking them to the retailers, we first tested the proposals in our offices. Based on our experiences, we then created A4-size information bulletins introducing the target objectives, messages, and outstanding environmental activities. These low-profile efforts



leading to the achievement of numerical targets raised the motivation of all employees. In 2005, "environmental initiatives" were decided at a board meeting. We decided to proceed with environmental activities with set targets at all outlets.

As a result, the various outlets started to cooperate with each other by holding voluntary study sessions to share information about methods to handle leftover food and to dispose of oil waste. Part-time workers started to separate waste completely, even in their own households. We started to hear about these good flow-on effects here and there. Topics for the information bulletin rapidly started to increase and now we publish the bulletin three to four times a month.

*JR East Eco Activities are environmental activities promoted at each work place. The aim is for each employee to become aware of environmental issues and to work on reducing their environmental footprint in any way they can.

Balancing cleanliness of rolling stock with preservation of the environment

Coordinator: JR Technoservice Sendai Co., Ltd. is in charge of cleaning and maintaining rolling stock in the Sendai region. I heard that you were successful in developing and introducing a detergent that is safer for the environment.

Mr.Sakiyama: Yes. Strong detergents clean better, it's true. However, thinking about the effects of such chemicals on the environment and on the health of our cleaning crews, we thought that it was necessary to improve the detergent we use. Oxalic acid is an ingredient in the strong detergents that places considerable stress on the environment. We worked with a detergent manufacturer to reduce the oxalic acid content of the detergent as much as possible while utilizing natural ingredients to maintain cleaning efficacy.

Coordinator: In the process, you repeated the testing.

Mr. Sakiyama: Yes. In the early stages of testing the new detergent did not rinse well and did not wash evenly. With trial and error, we repeated the manufacturing and testing cycle and steadily kept improving the production prototype. As a result, we were able to create a safe and highly practical detergent. I am glad that in the end JR East recommended this cleaner and it is now used for rolling stock in each region.



Reduction of chemicals in detergent used on rolling stock

Future "recycling of food waste"

Coordinator: Lastly, I would like to ask about the new initiatives taken by the JR East Station Building Committee in "recycling of food waste"

Mr. Kobayashi: JR East Station Building Committee, which is comprised of the station building companies of the JR East Group, works on issues of common interest to all members. Preservation of the environment is one of the major issues addressed. In particular, since we operate food businesses in our station buildings, the recycling of food waste has captured our attention. However, since there are many kinds of restaurants in the station buildings, the food waste generated from them also varies widely. Some include non-food waste or are too hard to be crushed easily. With this background, we focused our attention



Mr. Shigemitsu Kobayashi, Project General Manager, JR East Station Building Committee, Food recycle investigation group (Research and Development Deputy General Manager, JR East Urban Development Corporation) on a new type of equipment cal led "a bio-composite food waste processor" and began some trial introductions in 2004.

Coordinator: I have heard that with this processor, separation of waste is rarely needed.

Mr.Kobayashi: That's right.This processor can process not only food scraps but also pieces of plastic or styrofoam trays with food scraps. The processed food waste becomes "charcoal" and can be supplied to JR East Group companies and to other companies as fuel.

Previously, food waste was mainly recycled to produce animal feed and fertilizer, and it can be difficult to find enough end-users for such products. For this reason, this processor can be regarded as something of a revolution. In the future, with this technology as acenterpiece, we would like to establish and expand an eco system in partnership with our group companies and localities.

Coordinator: This is a good idea. Fortunately, the JR East Group contains many related companies. We have a strong base for using teamwork to promote the 3Rs of reduce, reuse, and recycle. In other words, we can use our group's economy of scale to produce successful environmental activities. We strongly hope to lead these "buds" of synergy within our group companies to larger successes in the future. Thank you very much for joining the round-table discussion today.

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Coordinator:Mr. Tadami Tsuchiya, Director of Environmental Management, Corporate Planning Headquarters, JR East (now Branch Manager, Mito Branch Office, JR East)