CSR Report of Shinshiro Plant

Shinshiro Plant

Business activities:	Production of tires for passenger cars and light-duty trucks
Total site area:	221,000 m²
Number of employees:	900 (as of March 2010)
Location:	1 Furuyashiki, Noda-Aza, Shinshiro City, Aichi 441-1343, JAPAN Tel: +81-536-22-2251

Shinshiro-Minami Plant

Business activities:	Production of tires for passenger cars and light-duty trucks
Total site area:	88,300 m²
Number of employees:	327 (as of March 2010)
Location:	10-24 Oiri, Hitokuwada-Aza, Shinshiro City, Aichi 441-1338, JAPAN

Technical Contact: Administration Section, Shinshiro Plant Tel: +81-536-22-2251

Shinshiro Plant

Shinshiro-Minami Plant

Message from the General Manager

Mitsuo Sakurai

The Shinshiro Plant comprises the Main Plant and the Minami Plant (South Plant) across the Toyo River, and produces primarily high-performance radial tires for passenger cars. As a core production site committed to asserting world-class strengths in technologies for protecting the environment, we are determined to be a leader and are striving to bring environmentally sound products to market, and to eliminate wasteful uses of resources and conserve energy in all phases of tire production. To this end, we boosted production of the ADVAN dB Ultimate Comfort Tire in FY2009 and commenced production of an all-new noise-absorbing material called Silent Ring as well as the Air Lock emergency puncture repair kit for passenger vehicles. We are steadily converting factory lighting systems to LED to reduce energy consumption. Under the YOKOHAMA Forever Forest project, we are promoting tree planting activities not only at our factory but also in the local region. Already we have donated some 6,000 seedlings raised here at the Shinshiro Plant to companies, government bodies, schools and community groups, mainly in the local area. In FY2010, we registered as a participating emergency facility under the provisions of the Emergency Countermeasures for Photochemical Smog in Aichi Prefecture and worked to reduce both CO_2 emissions and energy consumption levels by upgrading to more energy-efficient equipment. FY2010 also sees the second phase of planting in the Forever Forest project. We plan to donate more seedlings to the local community and assist with planting if required. In this way, the Shinshiro Plant is committed to playing an active role in the city of Shinshiro, winner of the Japan Top Eco-City Contest (category III).

Environmental Initiatives

Environmental Policy in FY 2010

As a core plant for Yokohama Rubber in asserting "world-class technologies for protecting the environment," the Shinshiro Plant is determined to be a leader.

(1) As part of our social responsibility, we enrich people's lives and contribute to their greater happiness and well-being by devoting our wholehearted and continually making improvements so as to contribute to the environment and prevent environmental risk.
(2) In order to realize sustainable environmental management, all business units and associated companies making up the Shinshiro Plant establish their own procedures according to their environmental management plans, and maintain and improve them.
(3) We observe applicable laws and regulations, and agreements, and carry out environmental preservation activities accordingly.
(4) To protect limited global resources, including energy, raw materials and water, we act to prevent the wasting of them as a part of waste-reduction (MD) activities, and promote the 3Rs (Reduce, reuse, recycle).
(5) In order to embody this policy, being aware that the original activities of the plant indeed had environmental consequences, we have defined an environmental purpose, set environmental targets, which will be regularly reviewed, formulated an environmental plan, and are implementing it.
(6) We educate and enlighten all employees and individuals at the Shinshiro Plant so that they fully understand the policy, and to improve their own awareness and actions.
(7) We strive to contribute to the prosperity of, and live together with, the local community, in harmony and in fusion with nature – the abundant greenery amid the rushing waters of the Toyo River through YOKOHAMA Forever Forest project activities.
(8) This commitment has been declared to the public.

Commendation for environmental and social contribution activities

In November 27, 2009, the Shinshiro Plant was presented with the Eco-Ship Award from the Ministry of Land, Infrastructure, Transport and Tourism in recognition of our efforts to implement a modal shift from road transport to coastal shipping.

PRTR substances

(Unit: tons /year)

Shinshiro Plant (main building)

Designated No.	Specified chemical substance	Amount to treat*1	Emission *2	Transfer *3	Safety Evaluation: VIII-5 Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosystem)	Annual Converted Emissions (effect on ecosystem)
100	Cobalt and its compounds	16.60	0.000	0.373				
115	N-cyclohexyl-2-benzothiazolesulfenamide	504.58	0.000	3.327				
198	Hexamethylenetetramine	47.12	0.000	0.210				
282	N-(tert-butyl)-2-benzothiazolesulfenamide	176.92	0.000	0.566				
310	Formaldehyde	13.23	0.000	4.476				
	Total	758.45	0.000	8.952				

(Unit: tons /year)

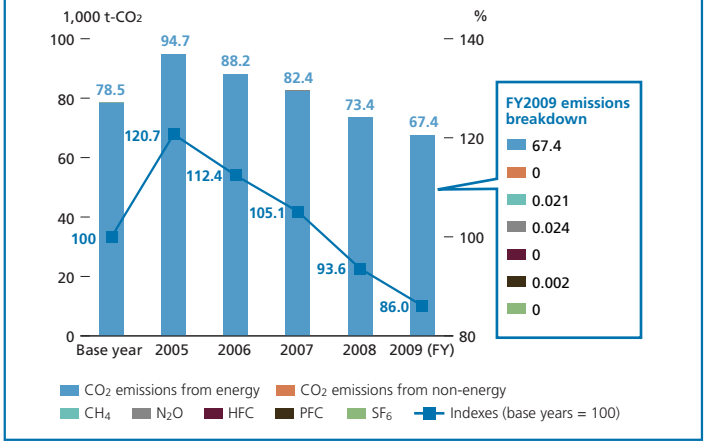
Shinshiro Plant (new factory TNP)

Designated No.	Specified chemical substance	Amount to treat*1	Emission *2	Transfer *3	Safety Evaluation: VIII-5 Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosystem)	Annual Converted Emissions (effect on ecosystem)
100	Cobalt and its compounds	15.601	0.000	0.038				
115	N-cyclohexyl-2-benzothiazolesulfenamide	73.644	0.000	0.473				
198	Hexamethylenetetramine	4.296	0.000	0.034				
282	N-(tert-butyl)-2-benzothiazolesulfenamide	28.967	0.000	0.189				
	Total	122.509	0.000	0.733				

*1: Amounts of 1 ton or more are listed (excluding dioxin). As for substances designated as Class 1 Specified Chemicals such as benzene, amounts of 0.5 tons or more are listed.
*2: Emission = Air + public water + soil
*3: Transfer = Waste + public sewage

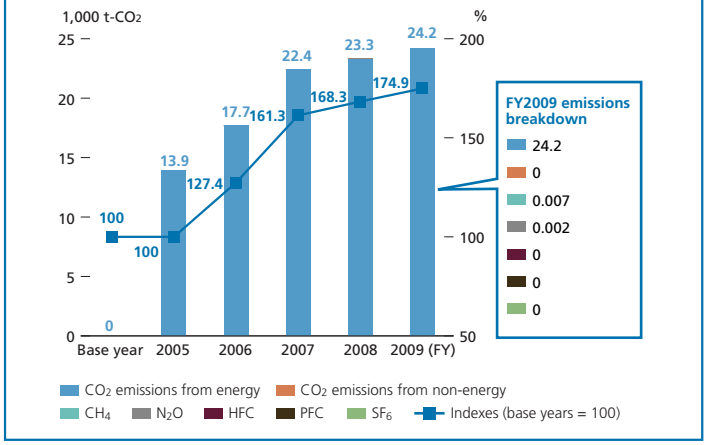
Combined greenhouse gas emissions and their indices (base years = 100)

Shinshiro Plant (main building) (14% reduction relative to base year)



* Base year is defined as 1990 except for HFC, PFC and SF6, where the base year is 1995 as per the Kyoto Protocol.
* Greenhouse gases (GHG) calculated in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions (Ministry of the Environment, Ministry of the Economy, Trade and Industry). Note that GHG emissions associated with purchased power in FY2009 were calculated using the table of Emission Coefficients by Power Company (Ministry of the Environment). Calorific heating values and emission coefficients have been revised in accordance with March 31, 2010 amendments to the Act on the Promotion of Global Warming Countermeasures.

Shinshiro Plant (Minami Plant) (increase in emissions due to commencement of operations at new facility)



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* The plant was built in FY2005

Water-quality-related data (major facilities)

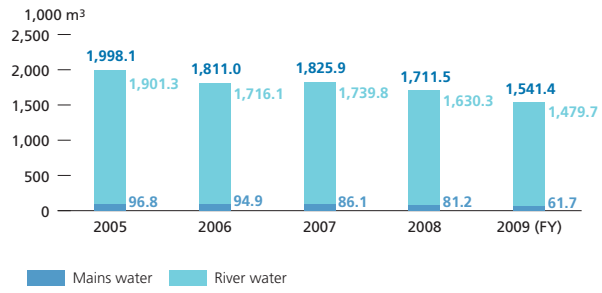
Water quality satisfies regulatory requirements as well as our own internal standards.

Drain	Substance	Regulation	Self-imposed control value	FY2009 result Average	Maximum	Minimum
Shinshiro Plant Drain 1	PH	5.8 - 8.6	6.5 – 8.0	7.4	7.8	7.2
	BOD density (mg/l)	20	up to 14.0	1.5	3.2	0.5
	COD density (mg/l)	20	up to 14.0	3.0	4.4	1.8
	SS density (mg/l)	20	up to 14.0	3.0	10.0	1.0
	Oil density (mg/l)	10	up to 5.0	0.5	0.5	0.5
Shinshiro Plant Drain 2	PH	5.8 - 8.6	6.5 – 8.0	7.6	7.8	7.3
	BOD density (mg/l)	20	up to 14.0	1.6	3.6	0.5
	COD density (mg/l)	20	up to 14.0	2.5	4.1	1.1
	SS density (mg/l)	20	up to 14.0	1.0	4.0	1.0
	Oil density (mg/l)	10	up to 5.0	0.5	0.5	0.5
Shinshiro-Minami Plant	PH	5.8 - 8.6	6.5 – 8.0	7.7	7.8	7.5
	BOD density (mg/l)	20	up to 14.0	4.2	7.5	2.0
	COD density (mg/l)	20	up to 14.0	6.0	8.2	3.4
	SS density (mg/l)	20	up to 14.0	2.0	5.0	1.0
	Oil density (mg/l)	10	up to 5.0	0.5	0.5	0.5
Shinshiro-Minami Plant Drain 2	PH	5.8 - 8.6	6.5 – 8.0	7.5	7.8	7.3
	BOD density (mg/l)	20	up to 14.0	3.5	5.4	1.4
	COD density (mg/l)	20	up to 14.0	4.2	6.1	2.6
	SS density (mg/l)	20	up to 14.0	2.0	9.0	1.0
	Oil density (mg/l)	10	up to 5.0	0.5	0.5	0.5

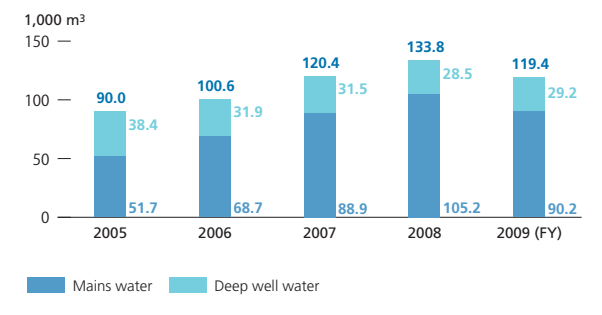
* According to Aichi Prefectural regulations and the Environmental Pollution Prevention Agreement with Shinshiro City.

Use of water

Shinshiro Plant (main building)



Shinshiro-Minami Plant



Air-quality-related data (major facilities)

Air quality satisfies regulatory requirements as well as our own internal standards.

Additional boilers (Boilers 1 and 2) were installed at Shinshiro-Minami Plant during FY2009.

Shinshiro Plant

Facility	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Shinshiro Plant Boiler 1	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0	Less than 0.003	0.003	Less than 0.002
	Nitrogen oxide density (ppm)	130	100	71	92	50
	Soot and dusts density (g/m³N)	0.1	0.1	Less than 0.001	Less than 0.001	Less than 0.001
Shinshiro Plant Boiler 2	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0	Less than 0.002	Less than 0.002	Less than 0.002
	Nitrogen oxide density (ppm)	130	100	75	99	51
	Soot and dusts density (g/m³N)	0.1	0.1	Less than 0.001	Less than 0.001	Less than 0.001
Shinshiro Plant Cogeneration	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0	Less than 0.25	Less than 0.3	Less than 0.2
	Nitrogen oxide density (ppm)	100	80	57	72	45
	Soot and dusts density (g/m³N)	0.05	0.05	Less than 0.004	Less than 0.006	Less than 0.003
Shinshiro Plant Warm-water Boiler A	Nitrogen oxide density (ppm)	150	50	38	38	38
	Soot and dusts density (g/m³N)	0.1	0	Less than 0.004	Less than 0.004	Less than 0.004
Shinshiro Plant Warm-water Boiler B	Nitrogen oxide density (ppm)	150	50	38	39	37
	Soot and dusts density (g/m³N)	0.1	0	Less than 0.004	Less than 0.004	Less than 0.004
Shinshiro Plant Dipping machine	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.0034	0.002	0.003	0.001
	Nitrogen oxide density (ppm)	250	150	16	19	13
	Soot and dusts density (g/m³N)	0.15	0.1	0.012	0.018	0.005

* According to the Air Pollution Prevention Law, Aichi Prefectural regulations, and the Environmental Pollution Prevention Agreement with Shinshiro City.

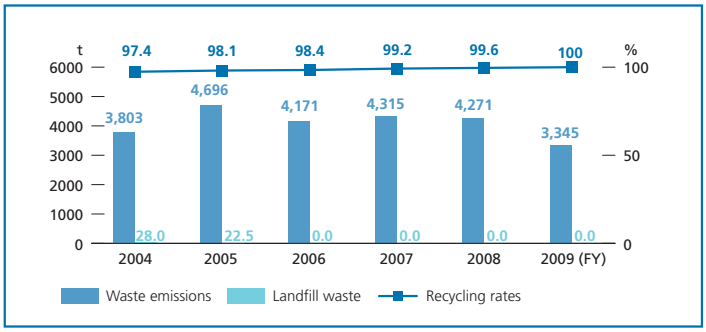
Shinshiro Plant (new factory TNP)

Facility	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Shinshiro-Minami Plant High-pressure Boiler 1	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.01	0.014	0.005
	Nitrogen oxide density (ppm)	180	150	64	81	46
	Soot and dusts density (g/m³N)	0.25	0.1	0.013	0.019	0.007
Shinshiro-Minami Plant High-pressure Boiler 2	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.013	0.016	0.009
	Nitrogen oxide density (ppm)	180	150	64	81	47
	Soot and dusts density (g/m³N)	0.25	0.1	0.012	0.015	0.009
Shinshiro-Minami Plant High-pressure Boiler 3	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.023	0.041	0.004
	Nitrogen oxide density (ppm)	180	150	81	85	76
	Soot and dusts density (g/m³N)	0.25	0.1	0.006	0.007	0.004
Shinshiro-Minami Plant High-pressure Boiler 4	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.045	0.074	0.015
	Nitrogen oxide density (ppm)	180	150	85	89	81
	Soot and dusts density (g/m³N)	0.25	0.1	0.004	0.005	0.003
Shinshiro-Minami Plant High-pressure Boiler 5	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.049	0.067	0.03
	Nitrogen oxide density (ppm)	180	150	80	94	65
	Soot and dusts density (g/m³N)	0.25	0.1	0.002	0.002	0.002
Shinshiro-Minami Plant High-pressure Boiler 6	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.03	0.036	0.024
	Nitrogen oxide density (ppm)	180	150	72	86	57
	Soot and dusts density (g/m³N)	0.25	0.1	0.005	0.005	0.005
Shinshiro-Minami Plant Low-pressure Boiler 1	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.02	0.021	0.011
	Nitrogen oxide density (ppm)	180	150	83	86	80
	Soot and dusts density (g/m³N)	0.25	0.1	0.010	0.011	0.009
Shinshiro-Minami Plant Low-pressure Boiler 2	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.021	0.027	0.015
	Nitrogen oxide density (ppm)	180	150	69	88	50
	Soot and dusts density (g/m³N)	0.25	0.1	0.007	0.012	0.001
Shinshiro-Minami Plant 4t Boiler 1	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.032	0.047	0.017
	Nitrogen oxide density (ppm)	180	150	96	120	71
	Soot and dusts density (g/m³N)	0.3	0.1	0.004	0.006	0.002
Shinshiro-Minami Plant 4t Boiler 2	Sulfur oxide emissions (m³N/h)	Regulations in Article 3	0.08	0.041	0.063	0.019
	Nitrogen oxide density (ppm)	180	150	93	120	65
	Soot and dusts density (g/m³N)	0.3	0.1	0.004	0.005	0.002

* Environmental Conservation Agreement with the City of Shinshiro as required under the Air Pollution Prevention Law and the City of Shinshiro Pollution Prevention Agreement.

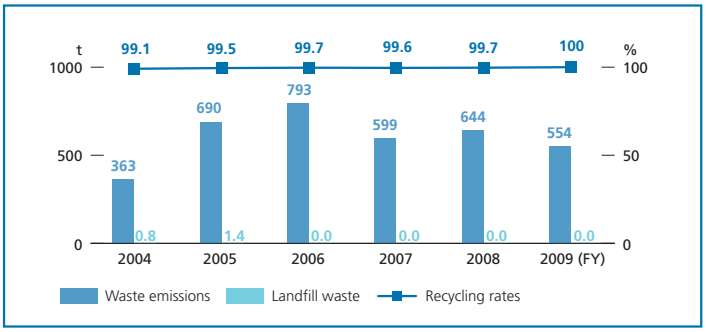
Waste output (including Hamatite)

Shinshiro Plant



* Total Zero Emissions in waste output has been maintained since FY2006.
* 100% recycling and reuse of resources was attained in FY2009.

Shinshiro-Minami Plant



* Total Zero Emissions in waste output has been maintained since FY2006.
* 100% recycling and reuse of resources was attained.

Safety Initiatives

Safety Policy in FY2010

Basic policy

We strive to provide a good working environment with zero workplace incidents by eliminating all forms of danger and hazards, in line with the fundamental principle of corporate operations regarding the health and safety of all employees and other workers on site. To this end, we use the Occupational Safety and Health Management System (OSHMS) to ensure that every worker appreciates the primary importance of safety above all else, and we encourage strong leadership from managers and supervisors.

Health and safety principles

(1) Each and every employee is expected to assign top priority to safety above all else. We strive to promote safety programs predicated on the participation, involvement and cooperation of employees and managers of every rank and level.
(2) Managers, supervisors and others in leadership positions are expected to serve as role models in maintaining a neat, clean and orderly workplace and demonstrating the importance of discipline.
(3) We work to reduce risks on an ongoing basis by eliminating latent hazards in processes and equipment using the PDCA cycle in the Occupational Safety and Health Management System (OSHMS).
(4) We strive to promote good communication through initiatives such as factory managers talking directly with operators and one-on-one training sessions.
(5) We are committed to worker safety in accordance with the Industrial Safety and Health Law and other applicable laws and regulations as well as company rules and standards.
(6) We strive to provide a pleasant and comfortable workplace environment designed to minimize employee fatigue and stress.
(7) We use health and safety training programs and other initiatives to boost awareness of health and safety issues, and we encourage compliance with this Health and Safety Policy among our affiliated and partner companies.
(8) This Policy is made available in the public domain.

Employee training and drills

(1) Occupational Safety and Health Management System (OSHMS)
- OSHMS certification and internal auditor training program
- Safety audit and associated follow-up activities

(2) Equipment safety
- Hands-on training in risk assessment procedures (twice per month)
- Risk assessment of process equipment and procedures
- Identifying and rectifying tip guidance processes
- Near-miss solutions (one proposal per worker per month)
- Eliminating short stoppages and adjustments

(3) Safety awareness
- Hazard prediction training (KYT)
- Workshop-based skills training and exercise sessions (twice per year for all employees)
- Promoting safety awareness, creating a safety culture
- Stop, Call, Wait campaign and one-on-one safety training program
- Health and safety training for new employees
- Safety qualifications and certificates
- Boosting safety awareness and promoting shared safety awareness through OPL and associated training programs
- Actively assisting with disaster prevention programs run by environmental and safety subcommittees at affiliated companies

(4) Improving the workplace environment
- Monitoring and implementing improvements to the workplace environment

(5) Mental health
- Mental health care programs

(6) Traffic safety
- Providing traffic safety guidance at the factory gates and joining in municipal traffic safety programs (640 participants)

Emergency response

- In the event of an incident at the plant, a safety evacuation will be ordered. Information about the cause of the incident and associated countermeasures will be shared and implemented on other processes where relevant.
- The Health and Safety Committee will monitor the implementation of countermeasures in response to the incident.
- Incident reports will be distributed throughout the plant and sent to other plants. Where similar equipment or procedures can be identified, action is taken to identify and eliminate potential hazards.

Joint emergency response drills were conducted in September 2009 in conjunction with the Shinshiro Fire Department. The drills, designed to reduce the impact of a disaster such as earthquake or fire, were conducted five times at the Shinshiro Plant.

Four drills based on the scenario of an oil spill in the Nodagawa River were conducted in May 2009.

Working with Local Communities

Factory tours and discussion meetings

On June 30, 2009, the Shinshiro Plant hosted 12 heads from nearby ward associations on a tour of the facility followed by a discussion session. During FY2009 we also conducted factory tours for 148 students from three elementary schools, including question and answer sessions on tire production.

Factor tour applications

To apply for a tour of the Shinshiro Plant, contact the Administration Section on +81-536-22-2251 (Japan).

Beautification campaigns

Some 320 employees from the Shinshiro Plant joined local residents in the Shinshiro Clean Festa (hosted by Shinshiro City) held on two occasions in June and October 2009. In addition, a total of 595 employees took part in 11 separate clean-up days in the area around the plant.

Community feedback and the Company's response

Complaint

On October 9, 2009, a resident from the western side of the plant complained that carbon had entered his home and settled on the floor, soiling his socks as he walked around.

Response

The bucket transport inspection window on the Banbury mixer had come loose during the typhoon on the previous day. As a result, carbon had escaped from the inspection window and been carried west by the wind. We decided to supplement the ordinary daily inspections with a special inspection to be performed at startup following a typhoon or other emergency type situation. We also replaced the bucket feed system with a pneumatic feed in mid October.

Shinshiro Plant management apologized to the complainant for the incident. We explained the problem and the steps we had taken to resolve it, and he was satisfied with our explanation.

Sporting and other events

The Shinshiro Plant sponsored and/or provided support for a number of local events including the Shinshiro Summer Fireworks Festival in August 2009, the Shinshiro Rally in September 2009, the Shinshiro Marathon in January 2010 and various local festivals in the immediate area.

In January 2010, our fire brigade represented Shinshiro Plant in the Shinshiro New Year Fire Brigade Parade.

TOYOTA Forever Forest Project

Some 12,756 seedlings were planted in the first phase of planting at the Shinshiro Plant on May 23, followed by another 3,248 seedlings at the Shinshiro-Minami Plant on November 14. The two events attracted a total of 1,400 participants. During FY2010, we will be holding another planting at Shinshiro Plant on May 22 and Shinshiro-Minami Plant in July. A total of 65 employees volunteered for four different planting d ays, such as one held at Toei-cho Tobu Elementary School for the first Aichi Tree Planting Relay. In total, we donated approximately 6,000 seedlings to local government bodies and private-sector organizations during FY2009.

Employee perspective: Masaru Naito

So far, I've participated in 11 tree-planting events. Before I started, I left environmental activities up to other people, but now my attitude has changed to wanting to do what I can. Why not try planting just one tree yourself? It's fun!

From the Project Office: Eiji Fujisawa

This project involves everyone giving up their precious time at work on endless preparations for planting, and at one stage I began to wonder if I was expecting too much. But then one day, I saw one of the workers who had just completed a night-shift happily tending to the seedlings and he told me to let him know if I needed a helping hand. That made me realize that it was all worthwhile. I hope that our planting project will one day develop into much more than just beautification of the factory area, by creating strong and lasting ties with the local community.

Certificate of Appreciation received from the Mayor of Togocho for donation of seedlings and volunteer contributions to the 2nd Aichi Tree Planting Relay.