

New Base for Challenges, Creation, and Contribution We Plan to Move Forward in Step with this Forest

The Sanden Forest, which is based on the concept of "Symbiosis between Nature and Industry," is located on a 641,000m² tract of land (about 15 times the size of the Tokyo Dome baseball field) on the southern slopes of Mt. Akagi in Gunma Prefecture. It is the first site in Japan where the "manufacturing close to nature" concept has been realized. The Akagi Plant—our principal factory for manufacturing vending machines and retail store systems—is located within the Sanden Forest, and this plant incorporates systems that use the latest technologies to respond to the needs of customers around the world.

Designed to be a 21st century model for the harmonious coexistence of manufacturing plants and the natural environment, the Sanden Forest was developed from the early stages based on due concern for the environment. With the guidance of C.W. Nichols and Professor Shubun Fukudome, well-known naturalists in Japan, we conducted environmental assessments on our own initiative prior to beginning development. Rare plants that were discovered in the forest area were transplanted under the guidance of specialists and are now carefully protected. We periodically re-survey to update the assessments conducted when development began and are monitoring the habitats of diverse plants and animals.

Since April 2008, we have been conducting our fourth natural environment survey in the forest, which is scheduled to be completed in April 2009. The following section is a report on the preliminary results of this survey regarding changes in

the forest's plant and animal habitats.

■Preliminary Results of 2008 Sanden Forest Natural Environment Survey

Regarding vegetation, we have found that numbers of all tree species have increased since the forest was landscaped. The biotope pond has developed a grove of Japanese fantail willow (*Salix sachalinensis*), and other additional natural vegetation proliferation has been confirmed. Moreover, the sustained implementation of thinning, undergrowth removal, and other forest maintenance work has improved sunlight penetration to the forest floor, promoting the appearance of ferns and additional forest-floor plant species. We have confirmed that undergrowth clearing promotes the growth of such meadow plant species as three-leaved ladybells (*Adenophora triphylla*) and thistles. These trends were confirmed during the survey in April 2008.

Regarding birds, the number of confirmed species in the forest has tended to increase each year, and currently include such duck species at the biotope pond as mallards (*Anas platyrhynchos*) and teal (*Anas crecca*). Compared with the previous survey at the same time of year, the April 2008 survey found such additional species as the tufted duck (*Aythya fuligula*), hawfinch (*Coccothraustes coccothraustes*), and white-cheeked starling (*Sturnus cineraceus*).

A large increase was also noted in butterflies and dragonflies. Many species were found in diverse habitats. These included black-winged damselflies (*Calopteryx atrata*) living

by flowing water, monosashi tonbo damselflies (*Platycnemidinae*) in semi-sunlit waterside areas, and scarlet skimmers (*Crocothemis servilia mariannae*) above water amid such long-stemmed plants as cattail (*Typha latifolia*).

The Sanden Forest also serves as a site for environmental education that draws on the rich natural environment of the area, and many other activities and events are conducted there to help spread information about the Mt. Akagi region.

■Nature Experience Education for Primary and Middle-School Students

Besides making the Sanden Forest available for comprehensive nature experience educational programs for primary and middle-school students, we have arranged for the forest to be a venue for diverse other environmental preservation and nature experience programs. Since the forest was established, a total of approximately 19,000 people have participated in these programs.

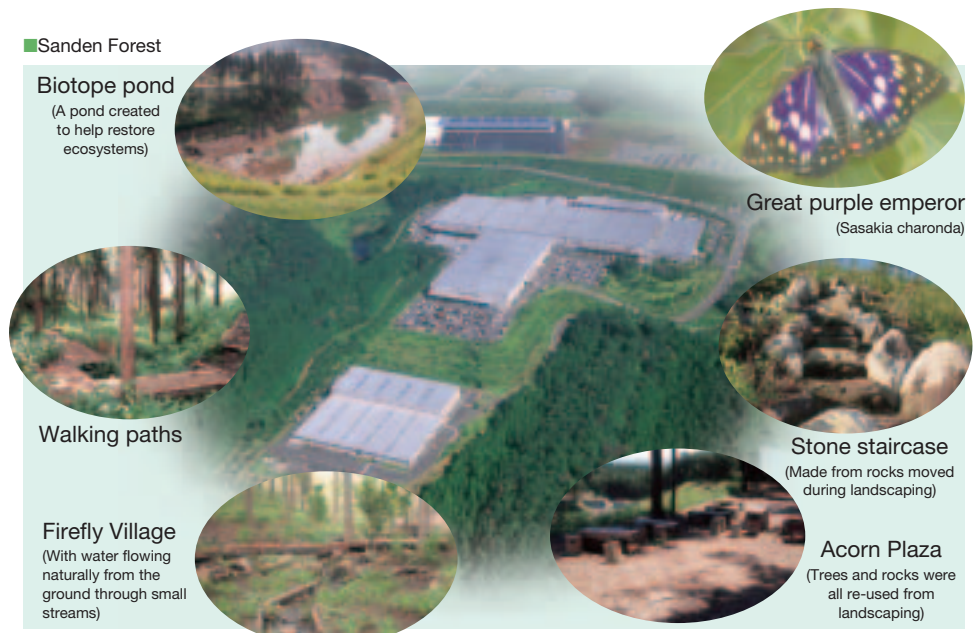
■Akagi Club Non-Profit Organization

Reflecting our desire to promote the Sanden Forest's use for teaching children good values, we organize various kinds of "Forest Kids" nature experience activities at the forest. Designed to make good use of the abundant natural environment of the forest, "Forest Kids" activities help teach children diverse ways of relating to the natural environment.

■Natural Environment Survey Results

	1998 <small>(before landscaping)</small>	2002	2004
Plant species	366	317	347
Mammal species	7	7	8
Bird species	54	38	46
Amphibian/ reptile species	10	7	6
Butterfly/ dragonfly species	—	32	50

■Sanden Forest



Biotope pond
(A pond created to help restore ecosystems)

Walking paths

Firefly Village
(With water flowing naturally from the ground through small streams)

Great purple emperor
(*Sasakia charonda*)

Stone staircase
(Made from rocks moved during landscaping)

Acorn Plaza
(Trees and rocks were all re-used from landscaping)

■Attainment of Excellent Stage 3 of the Social and Environmental Green Evaluation System (SEGES)

In fiscal 2008, the Sanden Forest and Akagi Plant were certified to have attained Excellent Stage 3 for SEGES 2008 by the SEGES Evaluation Committee, which is presided over by Japan's Ministry of Land, Infrastructure, Transport and Tourism and run by the Urban Greenery Foundation.

SEGES was begun from fiscal 2005 to evaluate and recognize contributions made by private corporations and others through activities to create and preserve a greenery-rich society. SEGES has five levels of recognition, ranging from the Green Stage, through Excellent Stages 1 to 3, to the Superlative Stage, which is attainable through a high level of contribution maintained for many years. The Excellent Stage 3 attained by Sanden Corporation is the highest of the Excellent Stages, recognizing an extremely high level of contributions to society and the environment through green and forested areas.

The review of the Sanden Forest and Akagi Plant involved interviews about Sanden's social and environmental contribution philosophy, green area development and maintenance policies, and vision for the future, as well as a tour around the Sanden Forest walkways. It required a full day to complete.

The Excellent Stage 3 certification reflected the SEGES Evaluation Committee's high appraisal of Sanden's employment of expert advisors from the Sanden Forest's and Akagi Plant's initial creation stages; efficient and comprehensive management of a large area of greenery; undertaking of improvements and preservation work based on feedback from environmental monitoring survey results; and development, promotion, and provision of nature experience and environmental education programs in cooperation with the local community.

Going forward, Sanden plans to continue using the Sanden Forest to make a broad range of contributions to society and the environment through green-

■The five levels of SEGES



ery maintenance and management activities, new tree-planting programs, the provision of support for programs of nonprofit organizations, and the hosting of schools' educational programs and other environmental study programs.

Environmental Activities
The Sanden Forest

SEGES 2008 Evaluation Results

Overall Evaluation		Evaluations by Item		Evaluations by Principle			
Labeling	Points	Vision (5 points)	Front-runner (5 points)	Fundamental	Principle 1 Land use Persistence (5points)	Principle 2 Greenery Management (5points)	Principle 3 Greenery Functional development (10points)
Excellent Stage 3	30/30	Posture and way of thinking about "greenification" activities	Pioneering of contribution activities	Principle	Principle 1: Greenery appraisal	Principle 4: Establishment of greenery management systems	Principle 6: Development of existing functions
				Principle	Principle 2: Greenery safety	Principle 5: Use of greenery for external communication	Principle 7: Development of coordination functions
		5/5	5/5	Evaluation	A	A	A
				Point	5/5	5/5	10/10