



# Environmental Conservation Activities

## Reducing Environmental Impacts of Logistics

Roughly spoken, logistics has two environmental impacts: the environmental impact from packaging, and the environmental impact from transport. Oki Logistics, Co., Ltd., a group company engaged in logistics, is working to reduce these environmental impacts from logistics.

### Efforts Related to Packaging

Environmental impacts of packaging are, for example, the consumption of resources for the packaging material or the emission of packaging material waste. To reduce these impacts, we are striving to design packaging in consideration of the 3R keywords "reduce, reuse and recycling", as well as to replace packaging materials with ones that are more eco-friendly.

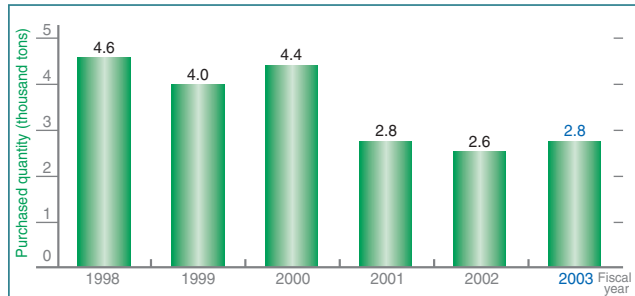
#### Promotion of Resource-saving Packaging

To reduce the quantity of packaging material, we work for resource-saving packaging. The "simple packaging method", for example, means that products are packed into only a polyethylene bag to shut out dust. During transport, we affix protective materials to the products to prevent scratches. This way, we can maintain a transport quality of the same level as for products packed in corrugated boxes.



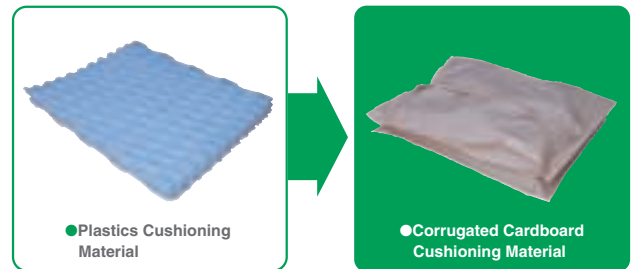
● Simple Packaging of an ATM (Automated Teller Machine)

#### Transition in the Quantity of Purchased Packaging Materials



#### Switchover to Eco-friendly Packaging Materials

We are promoting the replacement of polystyrene foam and other plastic cushioning materials with cushioning materials containing recycled paper, such as cushioning material made of corrugated cardboard.



#### Utilization of Palettes made of Corrugated Cardboard

Palettes are platforms to load things on for transport with forklifts, etc. The wooden palettes we used before were heavy and inconvenient to handle. Recycling these palettes was also difficult. To substitute these palettes, we are promoting the employment of palettes made of corrugated cardboard.



● Palette Made of Corrugated Cardboard

### Efforts Related to Transport

Environmental impacts of transport are, for example, the consumption of fossil fuels such as the diesel oil used by trucks, or the emission of CO<sub>2</sub>, NO<sub>x</sub> or SO<sub>x</sub> in the exhaust gas. As measures to reduce these impacts, we are, for example, switching over to low-pollution alternative fuel, or implementing "eco-driving" by eliminating idling. We are further promoting a modal shift to railroads and sea transport, as well as logistics reforms such as an improvement of loading efficiency or the operation of consolidated cargo delivery services.

#### Reducing CO<sub>2</sub> Emissions with a Modal Shift

The main environmental impact in logistics in the Oki group in Japan is from truck transport. Oki Logistics Co., Ltd. has for a long time been promoting the introduction of a modal shift from truck transport to railroad transport, which has less impact on the environment. For transports from the Kanto region, where the manufacturing sites are located, to the distant regions Hokkaido, Tohoku, Chugoku, Shikoku and Kyushu, the modal shift is already completed. Now, we are working on the Chubu and Kansai regions. As for truck transport, we organize social gatherings with our transport outsourcing partners, trying to bring our awareness with respect to enforcing the use of eco-friendly cars and zero idling to the same level to promote ecological driving.

#### Reduction of CO<sub>2</sub> Emissions through Shortening of Air Transport Routes

The semiconductor sections have a relatively high portion of overseas production. Semiconductor products produced in and outside of Japan used to be collected at the logistics base in Hachioji, Tokyo and then transported to locations in and outside of Japan. With the recent increase in overseas sales, the waste of time and logistics cost as well as the environmental impacts became too big. For this reason, we established logistics points within each overseas production plant, changing logistics routes so that products are now sent from the production plants directly to customers all over the world. This helped to shorten the air transport distance, and thus to reduce CO<sub>2</sub> emissions.

#### Transition of CO<sub>2</sub> Emissions from Transport

