


Environmentally Conscious Distribution

1 Environmental Activities at Distribution Sites

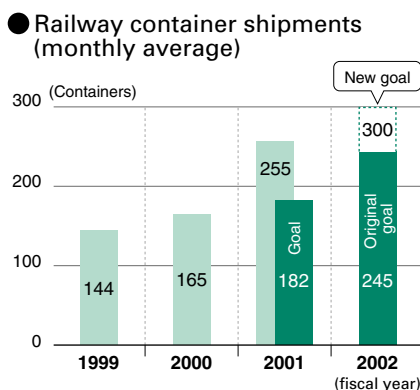
Objectives/ Plan	◎ Fiscal year 2001, shift to railway containers in Japan, goal: 182 containers*/month (110% compared to previous year) * 5-ton shipping container
	
Promotional Measures/Achievement	◎ Fiscal year 2001 achievement: 255 containers/month (140.1% of goal, 154.5% compared to previous year) * The goal for fiscal year 2002 was achieved ahead of schedule.

① Changing Modes of Transport

Sharp is currently pursuing a shift away from conventional truck freight to the more efficient railway container shipping, especially on its long-distance transportation routes. Since the goal for this shift in transportation method for fiscal year 2002 was achieved in 2001, we have set a new goal for fiscal year 2002. At the East Japan Logistics Center of the Domestic Sales and Marketing Group Distribution Center, our proactive approach to this shift in transportation modes earned Sharp a First Place Award at the “Second Railway Freight Promotion Awards” sponsored by the Japan Rail Freight Research Center, Limited.



Second Railway Freight Promotion Awards



② Eliminating Engine Idling

We have almost entirely eliminated engine idling by using stickers placed in vehicles, as well as signs and posters, to encourage drivers to turn off their engines while waiting to load or unload. As a result, we are reducing CO₂ emissions by the equivalent of 66 tons and saving 23 kl of fuel per month. This amount of fuel is enough to power a single truck a distance of 90,000 km, twice around the Earth.



A “No engine idling” sticker

③ Reducing Buffer and Packaging Materials Waste

Concentrating mostly on import/export containers, Sharp has switched to use of reusable airbags for its buffer materials, and has succeeded in reducing use of cardboard by 15 tons/month and expanded polystyrene by 144 m³/month in Japan. We are also making efforts to reduce waste by reusing packaging materials used for shipping small products and by repairing wooden palettes instead of disposing of them.

④ Introducing Low-Pollution Vehicles

Our goal is a 100% switchover rate to electric forklifts in our distribution centers in Japan by fiscal year 2003. Electric forklifts result in lower emissions of CO₂ than gasoline forklifts and they can be powered at a nighttime discount charge. In fiscal year 2001 we switched 7 forklift units to electric power, resulting in a reduction of CO₂ emissions by 21.2 tons. At present, the switchover is 98% complete.



Electric forklift

⑤ Efforts for Reducing Total Transport

At present Sharp is undertaking efforts to identify the total amount of transport involved in shipping our products, and is publicly disclosing this information. Our total transport level for fiscal year 2001 was 149 million ton kilometers (t x km) in Japan. In order to alleviate the burden of our transport on the environment, we are working to improve our distribution efficiency by 1) improving loading efficiency and 2) increasing the amount of direct-from-factory shipping.

2 Efforts for Containers and Packaging Materials

Objectives/ Plan	<ul style="list-style-type: none"> ○ Cease use of expanded polystyrene for products weighing less than 5 kg. ○ Cease use of expanded polystyrene for products weighing less than 10 kg by March 2003. ○ Reduce use of expanded polystyrene for products weighing 10 kg or more.
<div style="text-align: center;">↓</div> Promotional Measures/ Achievement	<ul style="list-style-type: none"> ○ Total elimination of expanded polystyrene use for products weighing less than 5 kg* ○ Succeeded in eliminating expanded polystyrene use for some products weighing 10 kg or more, including large LCD TVs. <p><small>* Except for some continuing products produced</small></p>

① Efforts to Reduce the Use of Polystyrene Foam

After succeeding in the total elimination of expanded polystyrene as a packaging material for all of our products under 5 kg in fiscal year 2000, we set a goal of eliminating it as well from products under 10 kg, which can usually be carried home from the store by customers, by March 2003.



Full cardboard packaging for AC indoor unit

In Japan, Sharp's usage rate for cardboard is approximately 89%. Since the recycling rate for this commonly used packaging material is 93%, this means that approximately 83% of the packaging material used for Sharp products is eventually recycled.

We do continue to use expanded polystyrene packaging for seasonal items such as fans which are packed away even after purchase, but in the future we will take into account the judgment of the LCA and develop a packaging material which places less of a burden on the environment.

② Switching to Long-Lasting Packaging Materials for Inter-Factory Transport

By switching to plastic trays for the inter-factory transport of LCD units instead of the fully cardboard packaging we have been using, we succeed in 1) reducing the amount of waste produced, 2) enabling long-term use of trays, and 3) reducing costs. Finally, trays which are no longer used are designed so that they can be stacked and collected, even further increasing the energy efficiency of transportation.



Reusable packaging for LCD units

③ Packaging Materials to Be Displayed on All New Products in Japan

As of April 2001, the Japanese Law for Promotion of Effective Utilization of Resources requires labeling of packaging material used for products*. Thus Sharp is labeling the packaging materials for all of its new products as of April 2001, while drafting and implementing company-wide guidelines for this purpose in Japan.

* Probationary period is until March 2003.



Example of a container and packaging label

● Use of different packaging materials (for sales in Japan)

