

Reducing CO₂ Emissions from Logistics Operations

Toyota Industries is making various efforts to increase the efficiency of its logistics operations, including switching to rail transport and sharing its truck capacity.

● Medium Range Goals and Major Objectives

Toyota Industries recognizes that its transport activities have an impact on the environment as a result of CO₂ emissions and other factors. The company's Third Environmental Action Plan sets a medium range goal of achieving CO₂ emissions equivalent to FY 1990 levels by FY 2005. The company's major objectives are to increase the efficiency of its existing transportation activities and switch to alternative transportation methods.

● FY 2002 Achievements

For FY 2002, Toyota Industries established a short term goal of reducing its total CO₂ emission levels by 10% compared with the previous fiscal year. In FY 2002, the company successfully limited its total CO₂ emissions to 6.7 kt-CO₂. Toyota Industries achieved this short term goal by improving its load efficiency and rescheduling its truck shipments to reduce the overall number of trips required.

Case Study A Reducing Truck Shipments

Toyota Industries' Takahama Plant ships its completed forklift trucks to its regional dealers by truck and to its long-distance dealers by truck or ship. Previously, the Takahama Plant had been using separate truck shipments for each dealer. In FY 2001, the plant established fixed truck routes so that forklift truck shipments could be delivered to several dealers at one time. This helped to reduce the plant's overall truck shipments.

In FY 2002, the Takahama Plant created additional route variations, bringing the total of fixed truck routes to around 50. Consequently, the plant was able to reduce its CO₂ emissions by 241 t-CO₂ in FY 2002.

Case Study B Utilizing Alternative Transportation Methods

In February 2003, Toyota Industries began switching to alternative means of transport for its long distance forklift shipments in Japan. This pilot program involved switching from ship to rail transport over an area that currently stretches from Aichi Prefecture to Kyushu (over 2,500 km). Toyota Industries expects that this pilot program will reduce its CO₂ emissions by 96 kg-CO₂ per delivery and is planning to switch to rail transport for future shipments to Hokkaido.

Case Study C Sharing Truck Shipments to Toyota Motor Corporation

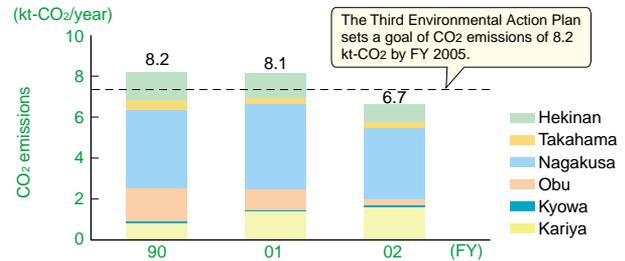
Toyota Industries is attempting to optimize the efficiency of its deliveries to Toyota Motor Corporation's Takaoka Plant. Previously, Hekinan Plant had been scheduling its own independent deliveries to the Takaoka Plant. In November 2002, the Hekinan Plant began deliveries of combined shipments to the Takaoka Plant that included cargo from other companies. Consequently, the frequency of deliveries to the Takaoka Plant was reduced, which led to a concrete reduction in CO₂ emissions.

The Hekinan Plant is also in the process of similarly optimizing its deliveries to other plants owned by Toyota Motor Corporation. These changes are expected to result in a further reduction of 1.9 t-CO₂ in CO₂ emissions per month.

Future Activities

In FY 2003, Toyota Industries will further reduce its CO₂ emissions by optimizing its transport activities through the initiatives shown above and by switching to alternative transportation methods.

CO₂ Emissions from Logistics Operations

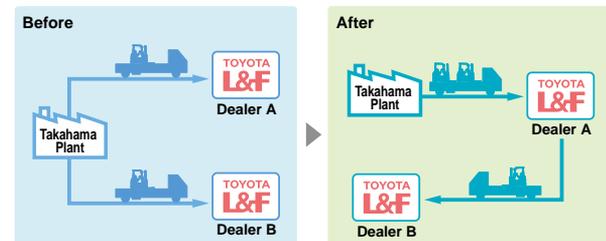


*Excludes data from the Higashichita Plant, which started operations in FY 2001.

● FY 2002 Measures

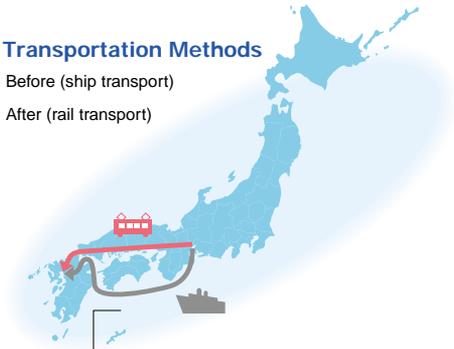
Description	Measure	Plant
Improve transportation efficiency	<ul style="list-style-type: none"> Improve loading efficiency Improve transportation routes 	All plants
Change transportation method	<ul style="list-style-type: none"> Switch from ship to rail transport 	Takahama Plant

Truck Routes



Change in Transportation Methods

← Before (ship transport)
← After (rail transport)



Optimized Deliveries to Takaoka Plant

