

# Environmental Management Systems/Logistics

## Environmental Management Systems/Green Procurement

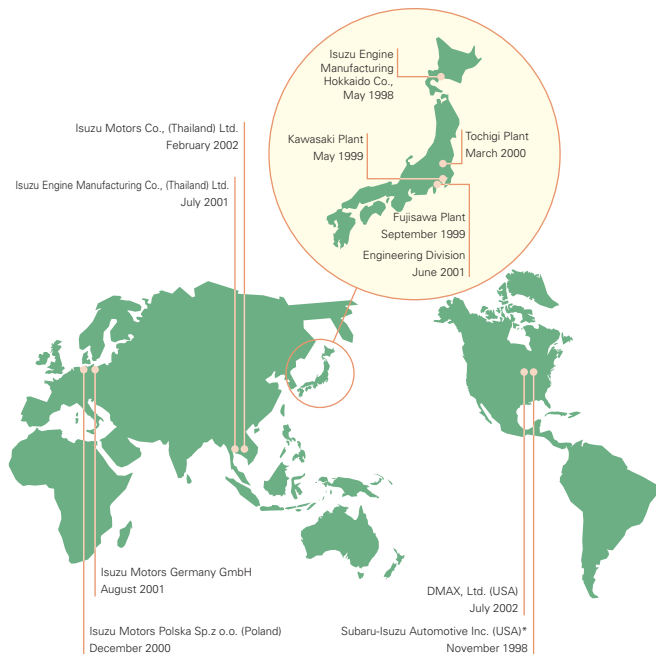
### Establishment and Operation of the Environmental Management System

Isuzu has established an environmental management system to reduce the environmental impact of its business activities and to strengthen the company's capacity to deal with environmental issues. We obtained ISO 14001 certification for all four plants in Japan by March 2000, and for the engineering division by June 2001.

With the July 2002 certification of DMAX, Ltd., a joint corporation with General Motors, our introduction of environmental management systems in major overseas plants has been completed. For environmental initiatives at DMAX, Ltd, please refer to "DMAX, Ltd.— A Model Site Overseas" on page 22.

We will work to achieve gradual consolidation of environmental management systems in Isuzu group companies in Japan that have manufacturing departments with major environmental impact, as well as sales and service dealers in Japan.

#### ISO 14001-Certified Plants and Divisions



\*Note: On January 1, 2003, joint management with Fuji Heavy Industries Ltd. was liquidated and SIA became Fuji's 100% subsidiary company and changed the name as Subaru of Indiana Automotive, Inc.

### Environmental Audits

We conduct environmental audits to assess and make constant improvements to the environmental management systems at our plants. Isuzu's environmental audits are comprised of internal audits conducted on a regular basis, once or twice a year, and the inspections and reviews for renewal by an external certification organization

In fiscal 2002, we were able to secure our environmental management systems while a review for ISO 14001 certification renewal was completed for all the four plants in Japan. To enhance the self-auditing capabilities of each plant, we are training newly appointed internal environmental auditors and provide refresher programs for those who have been certified.



Internal environmental auditor training session

### Compliance with Environmental Laws and Regulations

Isuzu works hard to go beyond merely complying with environmental laws and regulations; we seek to reduce the environmental impact of our business activities by voluntarily establishing stricter standards for ourselves than the national and local standards. We hold plant environmental committee meetings on a regular basis in each to confirm compliance with legal requirements and discuss day-to-day maintenance of standards. In fiscal 2001, Isuzu was completely in compliance with all environmental regulations.

### Product Recalls and Suits for Environmental Reasons

In fiscal 2002, there were no environment-related recalls from Isuzu. We have some environmentally related lawsuits under way on the health effects of exhaust emissions. The decision on the first trial of the First Tokyo Air Pollution Lawsuit was made on October 29, 2002. This case is under way in an intermediate appeal. The second and following trials are under way in the first trial.

### Promoting Green Procurement and Responding to EU-ELV Directive

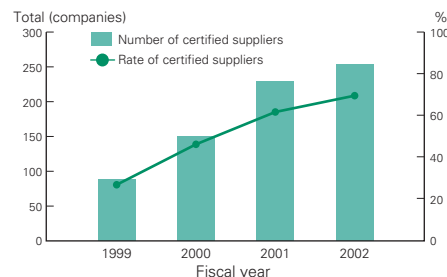
In line with the Isuzu Green Procurement Guidelines we released in November 2000, we hold several types of explanatory seminars for our suppliers. We urge our suppliers to obtain ISO 14001 certification or to establish an equivalent environmental management system which will control and reduce the use of substances with environmental impact.

In fiscal 2002, Isuzu held seminars entitled "Guide to Green Procurement" and "Guide to Isuzu's Policy on Purchasing Materials" in support of 230 suppliers in Japan in July and 122 vendors in Thailand in November. We also responded to the EU-ELV Directive to completely phase out the use of lead, hexavalent chromium, mercury and cadmium on schedule. In addition to the promotion of ISO 14001 certification of our suppliers, we are urging them to promote zero emission activities and to introduce the International Material Data System (IMDS) to comply with the EU-ELV Directive and Japan's Automobile Recycling Law. Currently, 254 of the 366 suppliers are ISO 14001-certified, accounting for 69.4% of the total as of March 2003.



Green procurement explanatory seminar

#### ISO 14001 Certification of Isuzu's Suppliers



### Environmental Efforts in the Logistics Division

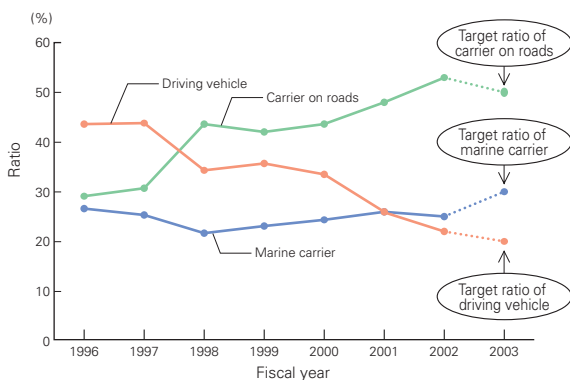
In the Logistics Division, we divide logistics into three forms: vehicles logistics, component logistics and procurement logistics. We conduct environmental efforts according to the respective categories. We are expanding delivery by railways and marine transport to replace deliveries by driving the vehicle, use of returnable packaging materials, and improving transport efficiency. These initiatives are supported by the cooperative activities of Isuzu and its group companies, in order to reduce CO<sub>2</sub> emissions and energy consumption.

### Rationalizing Vehicles Logistics

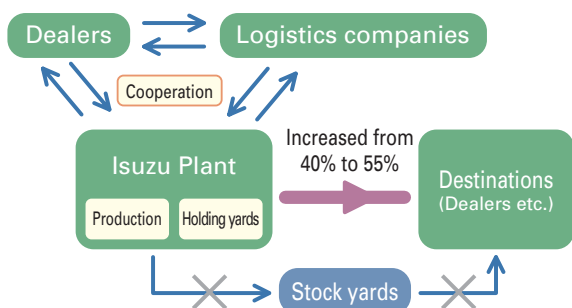
To reduce the CO<sub>2</sub> emissions and energy consumption that arise when we deliver our vehicles for ourselves to the market, we are shifting away from the past practice of driving the actual vehicle, in favor of using car and truck carriers, as well as ocean transport by ship. As a result, we were able to reduce the percentage of deliveries by driving the vehicles for ourselves from 26% in fiscal 2001 to 22% in fiscal 2002. We will continue to work to reduce the ratio to 20% in fiscal 2003.

Isuzu and its group companies are also lessening CO<sub>2</sub> emissions by delivering vehicles directly to our dealers and places specified by our customers rather than transferring them to stockyards for temporary storage. The concerned companies have taken responsibility to aid these more efficient vehicle deliveries by sharing information: dealers transmit advance delivery requests, logistics companies provide unified delivery control, and Isuzu provides information on production and sets aside a special holding yard in each plant. As a result, the ratio of vehicles delivered directly from our plants increased from 40% in 2001 to 55% in 2002 and is expected to exceed 70% this year.

#### Vehicle Deliveries: Changes in Transport Modes Used by Isuzu in Japan



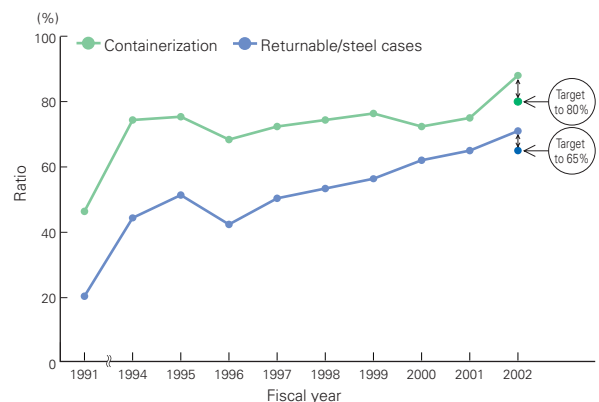
#### Improving Efficiency of Vehicle Deliveries (Cooperation of Dealers, Logistics Companies and Isuzu)



### Improving Component Logistics

We transport components for local production overseas. To meet environmental requirements concerning this practice, we are working to reduce the amount of wood used for packaging materials. In fiscal 2002, we focused on those for South America. As a result, the usage of non-wood packaging and packing materials increased to 88% in containerized transport and 68% in returnable/steel case transport, clearing the fiscal 2002 targets of an 80% shift to containerization and a 65% shift to returnable cases/steel cases. In fiscal 2003, we will focus on logistics for China. Consequently, shift to containerization and returnable cases/steel cases will be completed for major destinations.

#### Promotion of Containerization and Returnable Cases/Steel Cases for Packaging Materials



### Improving Procurement Logistics

In the conventional practice, parts manufacturers deliver components separately to the plants of their customers such as Isuzu. In 1995, Isuzu became Japan's first vehicle automobile manufacturer to introduce the "milk run" system for procurement logistics. In this system, the parts purchaser collects cargoes using its own fleet of trucks. We have steadily expanded the milk run system since 1995, and today, it is used for 80% of our parts suppliers in the Kanto district. It allows improvement of the cargo loading efficiency for delivery vehicles and efficient control of the number of vehicles used, thus significantly reducing CO<sub>2</sub> emissions and energy consumption. Our manufacturing environment is undergoing a sweeping change: vehicle models, production volume, manufacturing site integration and relocation. Against this background, we will appropriately adjust the use of the "milk run" system to meet environmental requirements for procurement logistics.

#### Isuzu's "Milk Run" Procurement System

