

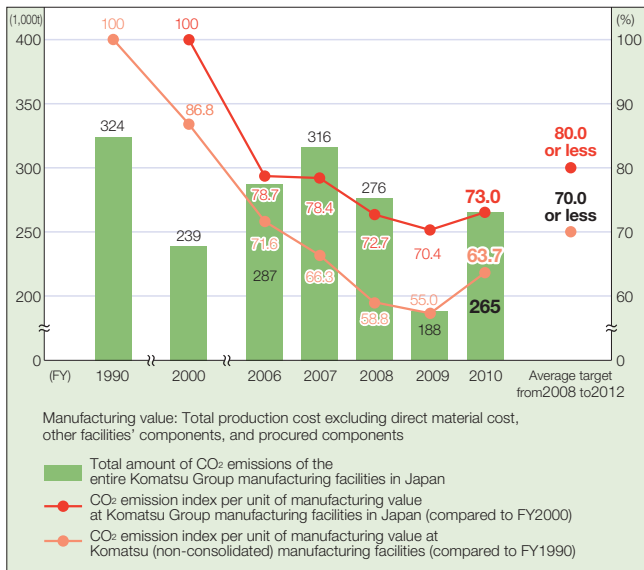
Initiatives to Mitigate Climate Change in Business Operations

Reducing CO₂ Emissions in Manufacturing Operations

As part of its efforts to mitigate climate change, Komatsu has adopted an indicator of CO₂ emissions per unit of manufacturing value with respect to the electricity, fuel gas, fuel oil, and any other type of energy used in the manufacturing operations. The Company has set a target of 20% reduction in CO₂ emissions by FY2010, compared to the FY2000 level.

In 2010, the increased use of energy for air-conditioning during the heat wave aggravated the situation, but the company succeeded in achieving its medium-term target for the fifth year in a row.

◆ CO₂ Emissions



◆ Main Initiatives in the Manufacturing Division

Demand side	<ul style="list-style-type: none"> Upgrading from old production lines to high-efficiency production lines Strict enforcement of cutting power to equipment not in operation Refining drying processes (shift to low-pressure air blowers) Introducing inverter-controlled pumps and motors Adopting high-efficiency lighting to a greater extent
Supply side	<ul style="list-style-type: none"> Using high-efficiency heat pumps in air conditioning systems Renewing transformers to amorphous transformers Using power saving control of engine-generators, etc. (Minimum CO₂ Operation)

Komatsu Castex's New Iron Foundry Facility

Komatsu Castex Ltd. is in charge of the Komatsu Group's foundry division. Iron foundry operations account for about 30% of the CO₂ generated by the Group, because of the high heat requirements.

Komatsu Castex Ltd. constructed the new iron foundry facility at the Himi Plant and transferred iron foundry operations from the Oyama Plant. Komatsu Castex is now capable of efficient operation. At the new iron foundry facility, the latest high-frequency melting furnace (IGBT control) was adopted.

50% of the CO₂ related to foundry is generated in the melting process. Using the new melting furnace, CO₂ emissions is reduced approximately 16% per weight in the melting process.

Reducing CO₂ Emissions in Logistics

● Improving Load Efficiency by Increasing Shipped Unit Size to Large Lots

Transport efficiency was improved by dense loading of large-size containers. The reduced number of transport runs resulted in a reduction of CO₂ emissions through the use of logistics. In addition, the use of returnable pallets contributed to the conservation of resources.



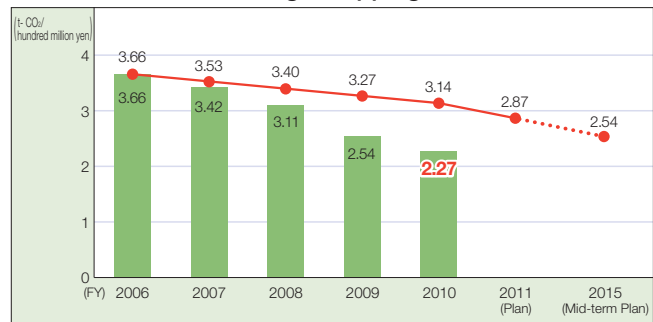
Loading engines into containers
(Example: PC200 bound for China:
load efficiency 98.8%)

● Using Nearby Ports to Shorten Shipping Distances

Shipping distances were shortened by transferring production to the Ibaraki and Kanazawa Plants, both adjacent to ports.

- (1) The Kanazawa Plant "Shipping distance per unit" 193 km/unit → 56 km/unit (71% of improvement)
- (2) The Awazu Plant raised its utilization rate of the Kanazawa Port for component shipments by 11.4%. (Utilization rate of the Kanazawa Port raised from 80.9% to 92.4%)
- (3) Transferring production of industrial machinery to the Kanazawa Plant resulted in a reduction of CO₂ emissions equivalent to 422 tons per year.

◆ Targeted and Actual CO₂ Emissions per Unit of Net Sales Generated though Shipping



Reducing CO₂ Emissions in the Non-manufacturing Divisions

With the revision of the Act on the Rational Use of Energy, all Komatsu business units are assessing CO₂ emissions in an effort to achieve reductions. The energy consumption of non-manufacturing divisions, including the Head Office building, the Research Division, and the Field Testing Department, is shown in the table below. Komatsu is proactively moving forward by assessing and reducing CO₂ emissions. These efforts are not limited to Komatsu alone, but are expanding to include the entire supply chain, from business associates to sales agencies and rental companies.

◆ Energy Consumption of Non-manufacturing Divisions (FY2010)

	Komatsu		Main partner companies	Main sales and after-sales services divisions	
	Production (for reference)	Non-manufacturing		Sales of construction equipment	Rental
CO ₂ (1,000 tons)	169.2	8.3	118.7	5.1	2.7
Crude oil equivalent (1,000 kℓ)	93.0	4.5	62.8	3.0	1.7