

Environmental performance

Saving energy and resources measures

Saving energy measures

Saving energy activities

In fiscal 1999, we at Kubota started the action plan as the third saving energy activities, in which the goals are 1% reduction of energy unit requirement a year on the average, and 5% reduction of energy unit requirement for five years. We reduced energy unit requirement by 1.1% compared with previous year, by promoting the measures such as waste heat recovery, etc., while the amount of production increased a little, in fiscal 1999.

The outline of saving energy activities

The third saving energy activities
(fiscal 1999 to fiscal 2003)
Target year: fiscal 2003

Goal: energy unit requirement reduction
by 5% or more for 5 years
(compared with fiscal 1998)

Goal: carbon dioxide emission unit requirement reduction
by 5% or more for 5 years
(compared with fiscal 1998)

Reference: Energy unit requirement = equivalent crude oil to energy used/in-house yield
Carbon dioxide emission unit requirement = amount of carbon dioxide emitted/
in-house yield

The third company-wide saving energy activities action program

Items	Theme
Operation	1. related divisions meeting in head office
	2. saving energy activities meeting in the secretariat
	3. the visit to the plants where saving energy measures are implemented
Promotion of saving energy	1. inclusion of saving energy technology in company-wide important investments, and in general investments
	2. promotion of the medium- and long-term plan
	3. saving energy investments (applying global environment-related budget)
	4. saving energy operation
	5. saving energy diagnosis by specialists
	6. introduction of new technologies
Training of saving energy engineers	1. training of energy management engineers
	2. opening of Kubota saving energy study group
	3. sending mobile saving energy lectures
	4. improvement of saving energy technologies
	5. saving energy education
Enlightenment of saving energy activities	1. awarding saving energy activities by small group
	2. challenging for saving energy excellent plant
	3. Kubota saving energy white paper
	4. improvement of energy management standards in plants



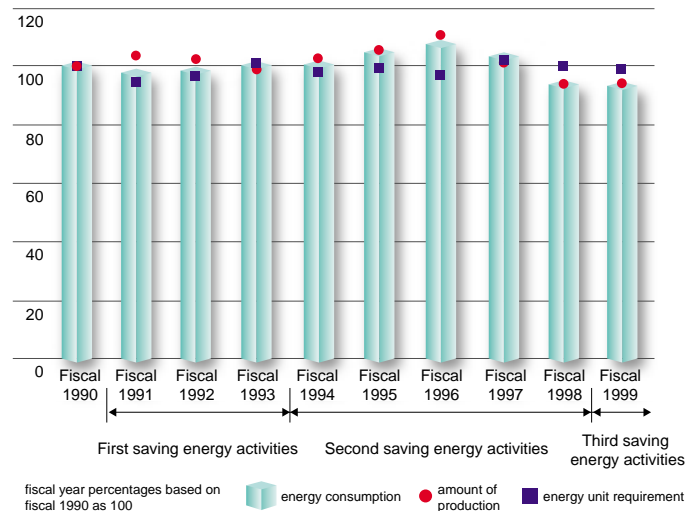
Reduction of energy consumption

In fiscal 1999, the volume of energy used was 260 thousands kℓ, based on crude oil conversion.

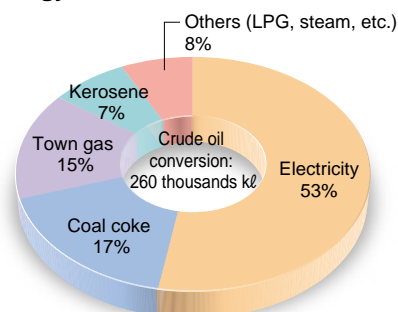
Our goal is 1% reduction of energy unit requirement, promoting the registered theme, introduction of saving energy top-runner machine and equipment, ISO14001, etc. In addition, we saved energy by the energy management such as preparing standards, implementation at workshop, etc. The concrete measures are as follows: Improvement of cupola exhaust heat recovery equipment (high temperature hot-air), Number of revolutions control of air-exhaust ventilators, fans and dust collectors, etc., Effective operation of melting furnaces (emptied on holidays), Introduction of temperature keeping furnaces with high efficiency inductor, Improvement of heat efficiency by submerged heater in the paint equipment, Introduction of saving energy type oven furnaces, Prevention of non-load rotation of motors, Heat loss reduction of air-conditioners, Measures for air leak, etc.

Transition of company-wide energy consumption

(fiscal year percentages based on fiscal 1990 as 100)



Company-wide energy consumption in fiscal 1999, by type of energy



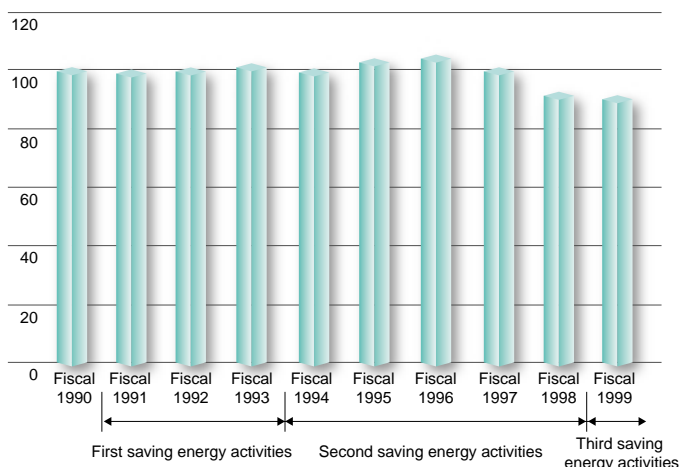
Reduction of CO₂ emission

In fiscal 1999, CO₂ emission amounted to 160 thousands metric tons, based on carbon conversion, the same level as the previous year.

The goal, to reduce greenhouse gas by 6% by the year 2010 compared with 1990 level, was established by COP3. We have reduced CO₂ emission by 8% through saving energy activities. We maintain our objective value from now on by saving energy activities.

Transition of CO₂ emission

(fiscal year percentages based on fiscal 1990 as 100)



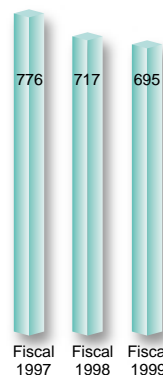
Saving resources measures

Effective use of water

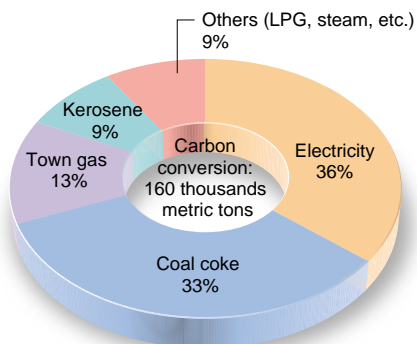
As a result of efforts to recycle wastewater and to promote wastewater reuse system, the volume of water intake in fiscal 1999 was 6.95 million m³, a reduction of 3% compared with the previous fiscal year. We are going to make an effort to save water and to recycle water in the time to come.

Transition of water intake

(unit: 10 thousand m³)



Company-wide CO₂ emission in fiscal 1999



Breakdown of water intake in fiscal 1999

(unit: 10 thousand m³)

