have participated in environmental

Public action

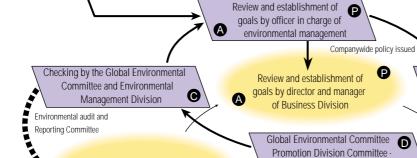
Global

**Environmental Charter** 

**Fundamental** 

environmental policy

In 1995, we introduced the Kubota Environmental Management System (KEMS), in conformance with ISO 14001. Since then, all of our offices have been involved in our environmental management system and in activities designed to bring us closer to obtaining ISO 14001 certification.



Checking by the Business

President's

administrative policies

"Kubota Environment Self-governed Action Plan" "Establishment of Global Environmental Committee Topic" Adjustment and feedback

Self-governed action plans concerning the environment established by Business Division and plants

Plan : Planning

o Do : Putting plans into action 0 Check: Inspecting the results

Action: Reviewing and setting goals

ø

# Activities of the Global **Environmental Committee**

In April 1992, in a move to bring the entire company into an active effort to solve global environmental problems, the Global Environmental Committee was formed, and an officer in charge of environmental management was appointed chairperson. During its first three years, the committee addressed 20 issues, including protection of the ozone layer and prevention of global warming. Other efforts were directed towards the total elimination of chlorofluorocarbons and trichloroethylene at the earliest possible date, and meeting the U.S.'s CARB regulations, the most stringent in the world at that time, through a general-purpose diesel engine.

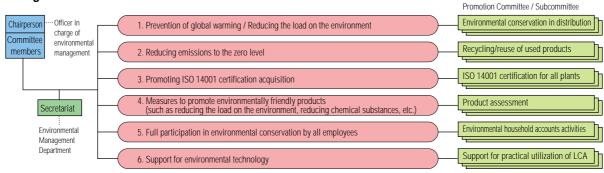
Subcommittee activities

Promotion by Business
Division and plants

During the second three-year period, a total of 12 issues were addressed by the committee, including efforts initiated in all 20 plants to obtain ISO 14001 certification, and measures to recycle waste and discarded items. Two plants succeeded in obtaining certification, while technology was introduced to crush and recycle discarded FRP.

The committee began its third term in April 1998. The organizational chart for the committee is shown below.

#### Organizational Chart for the 3rd Term Global Environmental Committee



#### Status of ISO 14001 acquisition

In our quest for improved environmental management, Kubota realizes the importance of environmental conservation activities, and with that goal in mind is striving to obtain ISO 14001 certification.

As of September 1999, eight of our 20 plants in Japan, including the Tsukuba Plant, had qualified for certification. Our goal is to have all 20 plants certified by mid-fiscal 2000.



# ■ Status of ISO 14001 acquisition (as of September 1999)

## Domestic sites

Plant	Main line of business	Certifying organization/Registration number	Date of certification
Tsukuba Plant	Manufacturing of agricultural machinery	Lloyd's Register Quality Assurance Limited (LRQA) 771757	Nov. 1997
Shinyodogawa Environmental Plant Center	Design/development of environmental equipment	JIC Quality Assurance (JICQA), E018	Dec. 1997
Funabashi Plant	Manufacturing of ductile iron pipes	Lloyd's Register Quality Assurance Limited (LRQA) 771890	July 1998
Ryugasaki Plant	Manufacturing of vending machines	Dedt Noriske Veritas AS (DNV), EMSC-1273	Nov. 1998
Mukogawa plant	Manufacturing of ductile iron pipes	Lloyd Register Quality Assurance Limited (LRQA) 772498	March 1999
Kyuhoji Plant	Manufacturing of precision machinery products	Dedt Noriske Veritas (DNV), EMSC-1379	March 1999
Sakai PVC Pipe Plant	Manufacturing of plastic pipes and fittings	Union of Japanes Scientists and Engineers ISO (JUSE), JUSE-EG-019	July 1999
Hirakata plant	Manufacturing of cast-steel products, pumps, valves, construction machinery, new-material products	Lloyd Register Quality Assurance Limited (LRQA) 772527	Sept. 1999

## Foreign Sites

Plant	Main line of business	Certifying organization/Registration number	Date of certification
The Siam Kubota Industry Co., Ltd	Manufacturing of engines and agricultural machinery	Management System Certification Institute (Thailand) EMS99001/001	Aug. 1999

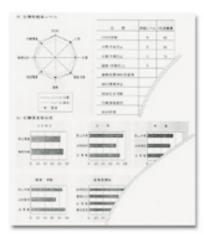
#### **Environmental Audit**

#### **Environmental Audit**

Environmental audit involves self-governed checking to see how our corporate activities affect the environment, and is an indispensable function in improving our environmental conservation effort.

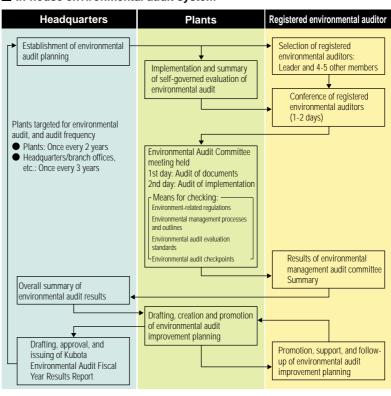
At Kubota, we implemented a Central Pollution Patrol system in 1973, and have been carrying out environmental audit since that time. We later reviewed our system and instituted certain changes to conform to ISO 14001 standards, bringing our audit methods up to date and making sure they were comprehensive and thorough.

Currently, environmental audit is carried out once every two years at our manufacturing plants, and once every three years at our headquarters office, branch offices, and other facilities, based on environmental audit evaluation standards. Points are awarded for each item and feedback is provided to the division being audited, so that current programs can be reviewed and new targets can be set.



Audit results sheet

### ■ In-house environmental audit system



#### ■ Formation of environmental audit evaluation standards

Environmental audit area	No. of items checked
Kubota Environmental Management System (KEMS)	42
Prevention of atmospheric pollution	33
Prevention of water quality deterioration	48
Noise and vibration prevention	25
Handling and control of industrial waste products	39
Global environmental conservation	13
Local society activities	7
Working environment control	56
Total	263

As a corporation dedicated to working in harmony with our environment, Kubota has established a fundamental environmental policy and has targeted certain items for particular emphasis. Our environment-related activities are carefully planned around those objec-

tives, and are promoted so as to ensure successful fulfillment of our goals.

The table below shows our environmental activity goals and the results of activities conducted in 1998.

Item	Objective	Results for fiscal 1998
Prevention of global warming	Volume of gas emissions causing hothouse effect 6% reduction by 2010, based on fiscal 1990 levels (COP3)	CO <sub>2</sub> emissions reduced by 8%
Energy conservation measures	Energy unit requirement  5% reduction by fiscal 1998, based on fiscal 1993 levels  ★ Energy unit requirement = energy converted from crude oil  Volume used/in-house yield	Reduced by 1%
Reducing industrial waste	Volume of waste material processed/disposed of (buried, burned, etc.) 30% reduction by fiscal 2000, based on fiscal 1994 levels	Reduced by 29%
Obtaining ISO 14001 certification	ISO 14001 certification for all 20 domestic plants by fiscal 2000	6 plants
5. Air and water quality control	Self-governed standards stricter than existing laws and regula- tions to be established and observed	Within self-governed standards
6. Working environmental control	Toxic substances: No. of work shops in No. 2 control area to be reduced by half by fiscal 1999, based on fiscal 1997 standards  22 work shops   → 11 work shops	Four work shops for toxic substances added
	Noise: No. of work shops in No. 3 control area to be reduced by half by fiscal 1999, based on fiscal 1996 standards  118 work shops → 56 work shops	Noise reduced at 43 work shops

#### **Environment-Related Costs**

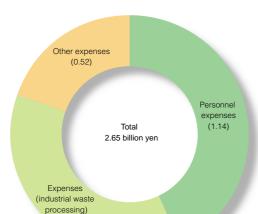
Environment-related accounting is currently a focus of worldwide attention. At Kubota, we first drew up our own standards in 1973, and we keep aggregate totals of expenses for environmental management and funds invested in environment-related facilities. This data is then put to use in our environmental management activities. In 1998, our environmental management expenses amounted to 2.65 billion yen, while facilities investments totaled 2.15 billion yen. These figures do not include expenses and investments made for the purpose of developing environmentally friendly products.

Direct effects from these expenses and investments totaled 2.77 billion yen.

Indirect results such as reduced opportunity losses that accompany environmental pollution prevention efforts and increased sales of environmentally friendly products have not been included in the aggregate total, because no method for calculating these has been defined.

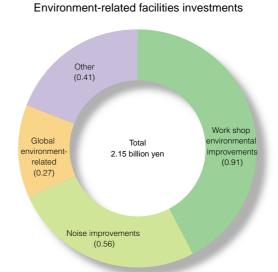
In the future, we plan to study guidelines provided by the Environmental Agency for calculating total environmental management expenses and funds invested in environment-related facilities, and to broaden the range of items included under our aggregate total column.

## ■ Breakdown of environmental management expenses and facilities investments for fiscal 1998



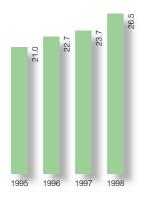
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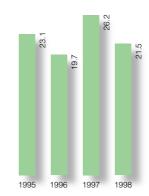
Environmental management expenses



# **■** Transitions in environmental management expenses (unit: 100 million yen) investments (unit: 100 million yen)

# ■ Transitions in environment-related facilities





# ■ Direct effects for fiscal 1998

Category	ltem	Annual effects (unit: 10,000 yen)
Energy conservation measures	Cupola radiant heat used, power reduced, etc.	177,500
Zero emissions	Volume of industrial waste reduced, resources recycled, funds from valuable commodities sold	23,600 16,200
Support for obtaining ISO 14001 certification	In-house environmental audit education provided (439 employees)	3,500
Measures for conservation of the distribution environment	Modal shift	43,300
	Improvements in crating and packaging	12,800
Total		276,900