

# Environment-friendly products and action plan

We at Kubota are tackling the development of environment-friendly products as our environment-concerning activities for the products, deciding the achievement goals by product in the five fields shown below.



## Results of tackling environment-friendly products in fiscal 2003 (completed products)

Name of consolidated division	Group of products	Fields					Contents of activities
		A	B	C	D	E	
Industrial infrastructure	Iron pipes						Water purification
	Steel pipes						Effective use of energy, reducing waste soil in construction
	Plastic pipes						Using recycled raw material, controlling used pipes generation
	Valves						Reducing weight, reducing waste soil in construction
	Materials						Reducing fuel consumption, alternative substances to chemicals, reducing drainage noise, reducing waste soil in construction, tree planting
Farm and industrial machinery	Tractors						Easily disassembling design, reducing exhaust gas, reducing exhaust noise and running noise
	Working machines						Reducing weight, reducing number of parts
	Agriculture-related products						Water pollution prevention, recycling waste
	Agricultural facilities						Reducing electric power consumption, water pollution prevention
	Construction machinery						Recycling used parts, reducing chemicals, reducing exhaust gas and noise
	Engines						Reducing exhaust gas
	Electric equipments						Saving resources, reducing electric power consumption
Environmental engineering	Automatic vending machines						Reducing electric power consumption
	Drinking water and sewage						Reducing electric power consumption, water purification, reducing waste
	Water environment						Water purification, reducing waste, effective use of waste
	Recycling						Reducing weight, reducing electric power consumption, reducing noise and vibration, Reducing waste
Housing materials and utilities	Pumps						Effective use of energy, water purification
	Housing material						Using recycled raw material, reducing chemicals
-	Joukaso						Reducing waste soil in construction, water purification
-	Air condition equipment						Controlling generation of waste, reducing electric power consumption, reducing chemicals

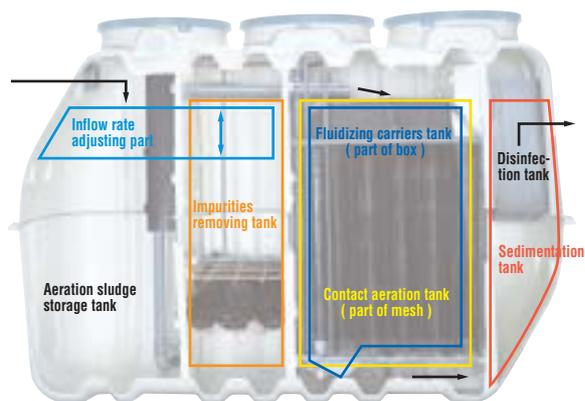
## An Example of LCA implementation

### Hybrid small-sized Joukaso

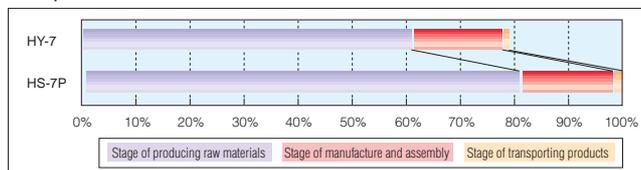
We compared the environmental load of hybrid small-sized Joukaso HY type, adopting two steps treatment of fluidizing carriers plus contact aeration, with that of usual contact aeration Joukaso HS-P type.

HY type Joukaso is smaller and lighter by about 30% respectively compared with HS-P type Joukaso because of design of miniaturization, though they have the same function.

As a result, emitted amount of carbon dioxide, from the stage of producing raw materials to the stage of transporting products, was reduced by about 21% compared with HS-P type. We are now tackling environmental load reduction in our mid- and large-sized Joukaso by miniaturizing and lightening them.



Comparison of emitted amount of carbon dioxide



## Environmental label

### Eco mark

Item	Name of product	Consolidated division
Eco mark	Bio green grass (biodegradable lubricant)	Farm and industrial machinery

### Specific procurement items in the Law on Promoting Green Purchasing

Field	Classification of items	Names of items	Our products
Public construction	Construction machinery	Construction machinery with reducing exhaust gas	Construction machinery
		Low noise construction machinery	Construction machinery
	Materials (piping materials)	Recycled hard PVC pipes for drainage	Three-layered hard PVC pipes using recycled foaming material
Equipments	Construction method (method of effective use of waste soil in construction)	Method of effective use of low quality soil	Duc-pile method
		Photovoltaic system	Ecology

## Green procurement and purchasing

We at Kubota joined the Green Procurement Network in 1996. And we have been promoting green procurement in which the environment-friendly products should take priority over other products.

We decided green procurement guideline regarding raw materials and parts in April 2001, in order to reduce the environmental load in cooperation with our vendors, conducting the investigation of their tackling environmental activities and so on. We are now promoting this system in all of our plants.

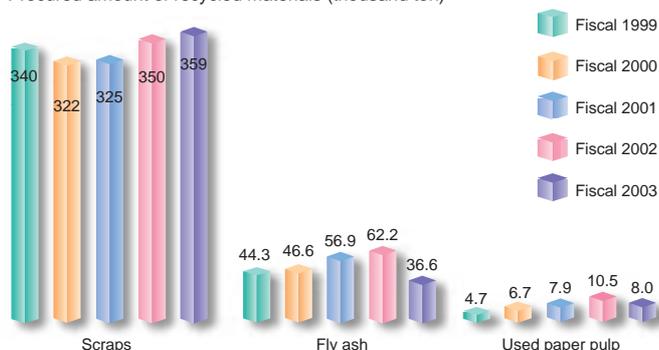
In November 2001, we decided green procurement promotion standards regarding specific procurement items in the Law on Promoting Green Purchasing, and now are intend to purchase the products which meet the judging standards in the law. We have made the system in which we can calculate the amount and the ratio of green purchasing.

Number of our eco-vehicles	
Natural gas vehicles	2
Electric vehicles	0
Hybrid vehicles	4
Methanol vehicles	0
Low fuel consumption and low exhaust gas vehicles (three-star vehicles among them)	253
LPG vehicles	0

According to the system, the amount of green purchasing was 29.40 million yen, the ratio of green purchasing was 57.0 % in fiscal 2003.

We will make an effort to increase the ratio, aiming at 100% in fiscal 2005.

Procured amount of recycled materials (thousand ton)



## Complying with the Law for Promotion of Sorting and Recycling of Containers and Packaging

We sell a various kind of products to the companies and consumers.

The packing of these products is various.

Almost all products are shipped with the packing that has no relation to the law.

We grasped the total amount of the packing, relating to the law, for our products in fiscal 2002 in the wake of the previous year.

As a result, the amount of plastic packing and paper packing used were approximately 410 ton and approximately 1,670

Our green procurement guideline can be seen on our home page of materials procurement. <http://www.procure.kubota.co.jp/housin/index01.html>



Benri-net

No.	実施内容	実施年度	実施状況	実施回数	実施金額
1	環境対策	2000-2001	完了	1回	1000
2	環境対策	2001-2002	完了	1回	1000
3	環境対策	2002-2003	完了	1回	1000
4	環境対策	2003-2004	完了	1回	1000
5	環境対策	2004-2005	完了	1回	1000
6	環境対策	2005-2006	完了	1回	1000
7	環境対策	2006-2007	完了	1回	1000
8	環境対策	2007-2008	完了	1回	1000
9	環境対策	2008-2009	完了	1回	1000
10	環境対策	2009-2010	完了	1回	1000
11	環境対策	2010-2011	完了	1回	1000
12	環境対策	2011-2012	完了	1回	1000
13	環境対策	2012-2013	完了	1回	1000
14	環境対策	2013-2014	完了	1回	1000
15	環境対策	2014-2015	完了	1回	1000
16	環境対策	2015-2016	完了	1回	1000
17	環境対策	2016-2017	完了	1回	1000
18	環境対策	2017-2018	完了	1回	1000
19	環境対策	2018-2019	完了	1回	1000
20	環境対策	2019-2020	完了	1回	1000