

Making better use of resources

Toward a sound material-cycle society

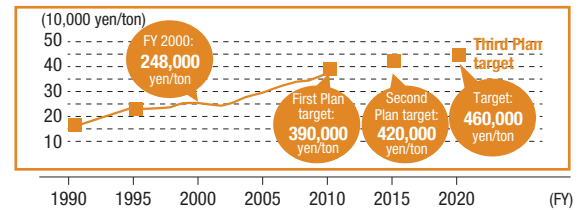
The first step toward establishing a sound material-cycle society is to gain an understanding of the flow of materials in the Japanese economy—the amount of resources being collected, consumed, and disposed of. Developing an accurate picture of material flow helps to curb waste, recycle and reuse materials, and otherwise make more efficient use of all materials inputs to society, thereby providing valuable information for policymaking.

To drive efforts to establish a sound material-cycle society, the following indicators are used for different material flow stages: inlet (resource productivity), circulation (cyclical use rate), and outlet (final disposal amount). There are also supplementary indicators for measuring, evaluating and further driving progress on government, business, consumer and other initiatives that cannot be monitored solely with material flow indicators.

Three material flow indicators

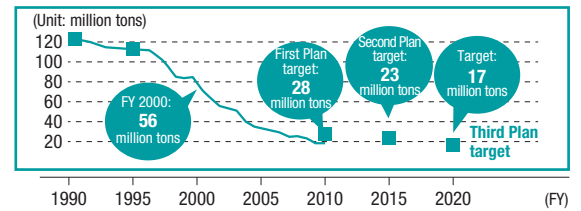
A Resource productivity

Inlet



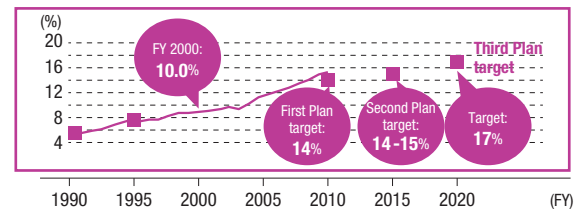
B Final disposal

Outlet



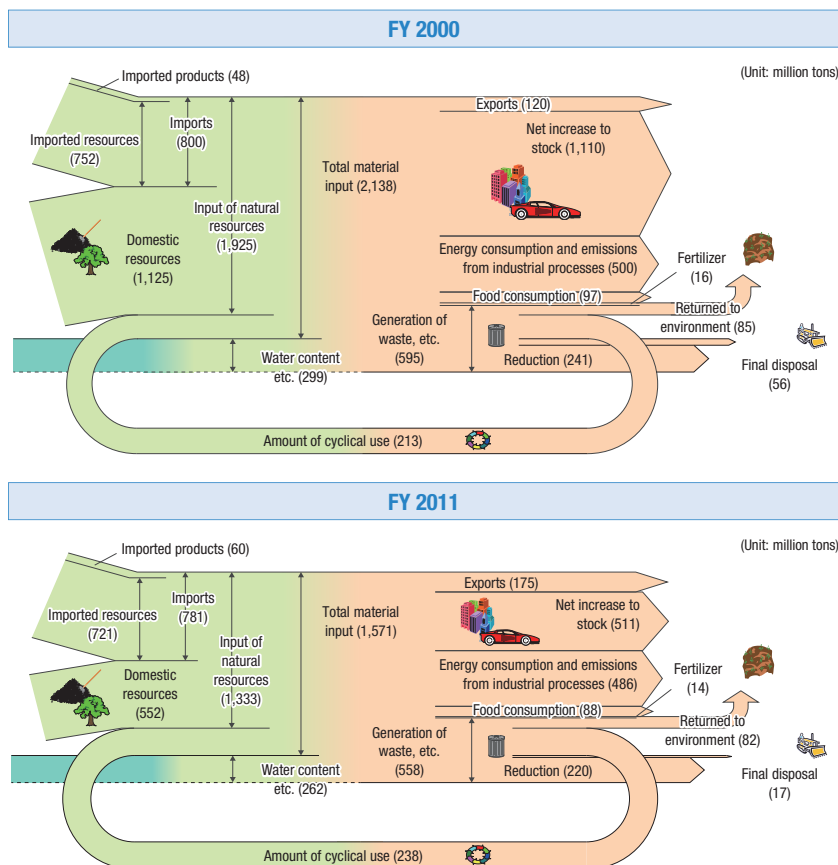
C Cyclical use rate

Circulation



Source: Ministry of the Environment

Material flow in Japan (FY 2000 and FY 2011)



Note: Water content etc.: Water content of waste (sludge, animal waste, human waste, spent acid, spent alkali) and of earth and sand etc. used in economic activities (mining, construction, waterworks sludge and mine tailings)

Source: Ministry of the Environment

Domestic initiative

Promoting waste reduction: elimination of plastic shopping bags

Since plastic shopping bags are very familiar items in the everyday life of consumers and can be eliminated through proactive consumer behavior, they hold promise as a tool to raise awareness regarding waste reduction. About 90% of Japan's 47 prefectures are endeavoring to eliminate the use of plastic shopping bags through various schemes. A survey conducted by the ministry on the effectiveness of charging for plastic shopping bags showed that imposing charges is indeed effective in reducing plastic shopping bag usage.

Promoting reuse: reusable bottles

Since reusable bottles are familiar containers that are recirculated mainly within a specific region, they hold promise as a tool to raise awareness regarding reuse. New approaches and initiatives that incorporate local community development perspectives have been launched.

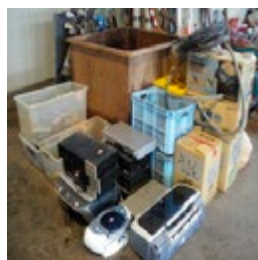
Effective use of resources: small home electronic appliance recycling system

Under Japan's small home electronic appliance recycling system, municipalities collect small electronic appliances from households and pass them on to government-certified contractors that remove and recycle precious and base metals contained in the appliances. To promote the recycling of small home appliances, the ministry is calling on local authorities to participate in the system, conducting awareness-raising activities and encouraging cooperation between relevant parties.

Collection box (Best Denki Co., Ltd.)



Pickup point collection (Akita Prefecture)



Collection at events (Sagamihara City)

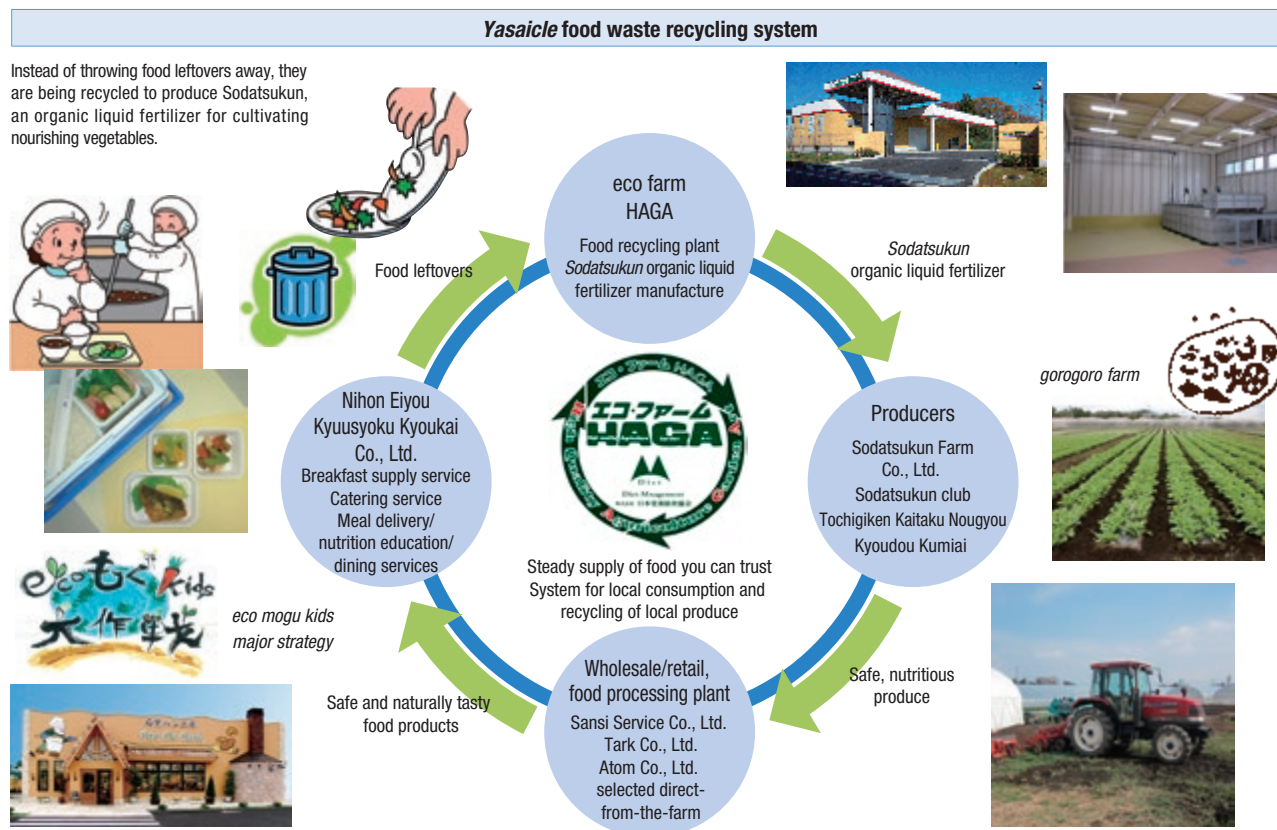


Source: Ministry of the Environment

Food recycling: *Yasaicle* food waste recycling

Educating consumers about the importance of food and the relationship between food and agriculture is a vital aspect of reducing food waste. One project that is addressing this challenge is endeavoring

to promote local consumption of local produce and the establishment of local brands by manufacturing liquid fertilizer from school meal and food service industry leftovers. The fertilizer is then used to grow vegetables and cereal crops.



International initiative—Regional 3R Forum in Asia and the Pacific

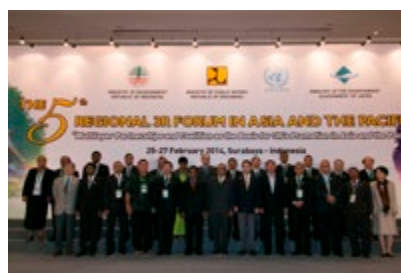
Increasing amounts of waste are being generated worldwide as a result of economic growth and population increase, and the amount generated in 2050 is expected to be over double that of 2010.

In 2009, the Regional 3R Forum in Asia was established at Japan's proposal as a platform for broad cooperation on promotion of the 3Rs—reduce, reuse and recycle—in Asia. Members include central governments, international agencies, aid agencies, private sector entities, research bodies, NGOs and other relevant parties. Forum members have held high-level discussions on policies, provided support for the implementation of 3R projects in member countries, shared useful information, and are building networks for the further promotion of 3R initiatives. Japan hosted the inaugural Regional 3R Forum in Tokyo in 2009, and has cosponsored subsequent Forums together with the governments of host countries and the United Nations Centre for

Regional Development (UNCRD). After the fourth forum, the name was changed to Regional 3R Forum in Asia and the Pacific.

The Fifth Regional 3R Forum—held in Surabaya, Indonesia, in February 2014—adopted the Surabaya 3R Declaration on the promotion of multilayer partnerships and collaboration for the expansion of 3R in Asia and the Pacific. Japan will continue its efforts to expand cooperation with the governments of other countries, international agencies, and other bodies with the aim of building a sound material-cycle society worldwide.

The Fifth Regional 3R Forum in Asia and the Pacific



Source: Ministry of the Environment