

Opportunities in Waste Disposal

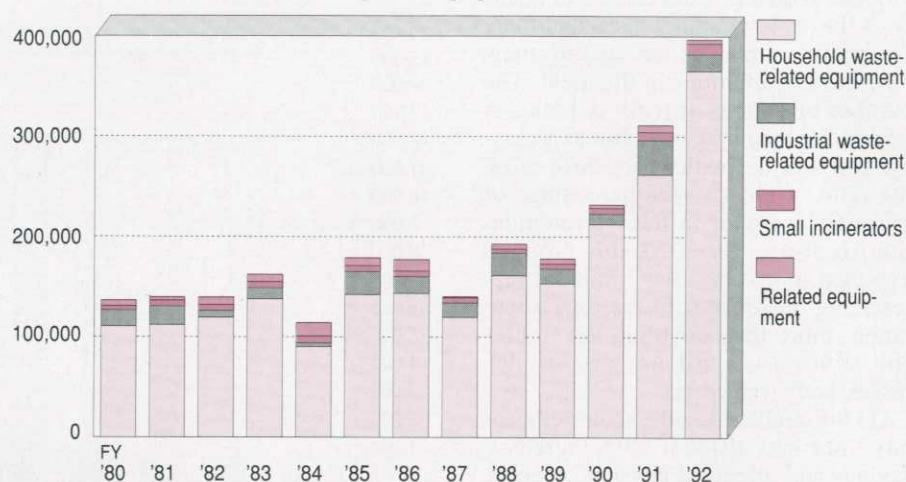
Internationally there has been a shift toward a more environment-friendly society, reflecting the growing global trend to protect the environment. In Japan, one of the major environmental concerns is waste disposal.

In fiscal year 1990, the volume of household and industrial wastes rose 16% and 26% respectively over the previous five years, to 50 million tons and 395 million tons. In contrast, the space available in final disposal sites (reclaimed land) has experienced steady decline, and as of April 1991, the remaining capacity for household wastes was limited to 9.3 years and for industrial waste only 0.6 years for the Tokyo metropolitan area and 1.7 years nationwide. Local opposition, based on possible water contamination and bad odor, to building final disposal facilities is ever intensifying, with 28 of the 47 prefectures having banned the importation of wastes from other prefectures. Thus, waste regulations are expected to become further tightened. Difficulties in finding sites for final disposal facilities are likely to increase in the future, causing serious problems, especially with regard to industrial wastes.

In fiscal 1990, 395 million tons of industrial waste were generated, 155 million tons of which were reduced through interim processing, 150 million tons recycled and the remaining 89 million tons left to final disposal. Compared with fiscal 1985 (out of 312 million tons of total industrial waste, 92 million tons were reduced through interim processing, 129 million tons were recycled and 91 million tons were left to final disposal), final disposal was actually decreased despite the increase in the total waste released. The push made to increase the proportion of interim processing and recycling to deal with the difficulties in finding final disposal sites has met with some, although small, success.

The traditional system based on incineration and reclamation has been shifting

Production Trends for Waste Disposal Equipment



Source: Japan Society of Industrial Machinery Manufacturers

toward more interim processing and recycling, thereby minimizing final disposal. Recently, administrative authorities have begun actively enforcing this trend. Currently, there are about 1,900 small incinerators run by municipalities for household waste. The Ministry of Home Affairs has a plan to convert them into recycling plants that can produce solid fuel for power generation. Financial support to local governments by allowing bond issuance for building recycling and power plants is also in the works. Some local governments are reported to be working on a recycling plan to melt burnt ash—currently reclaimed—to then be used for producing cement. Thus, a move



Oversized trash being delivered to a crushing facility by conveyor. Trash is broken down into small pieces to reduce its volume, and iron content is recovered in an effort to recycle it. (Central Tokyo Metropolitan Breakwater Landfill Site)

toward more recycling and interim processing should be stimulated through administrative efforts.

Although recycling seems to be the most effective in reducing the amount of final disposal, current costs of recycling, the products of which are often higher than virgin materials, seems to be the main obstacle. With demands for recycled materials fluctuating, such materials obtained through costly processing will likely have to be discarded. In order to promote recycling, it will be necessary to develop new technologies for cost reduction, to secure demands for recycled materials by administrative measures and to create an environment where the demand for recycled materials is stable.

Considering future waste disposal systems, promoting the shift to interim processing and recycling are definitely the most important objectives and efforts in these areas will further accelerate. In line with this, an increasing demand for technological developments and plants related to interim processing and recycling are expected.

(Yamagishi Takanobu, economist)