

Promotion of 3R Activities in Tokyo

Waste Management Division
Bureau of Environment
Tokyo Metropolitan Government

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Waste Management of Tokyo

- According to “Waste Management Program”, we are implementing specific activities in order to reach Sound Material Cycle Society.

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Basic Concept of the Program

Transformation for Sound Material Cycle Society

[Our target : Sustainable Sound Material Cycle Society]

Consumption of natural resources and waste generation are both reduced in line with promotion of waste reduction, reuse and recycling activities.

We can enjoy safe and comfortable living environment by means of minimization of the risk for waste disposal.

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Plan objectives

計画目標

- i) Reducing final disposal of FY 2010 into 1.6 million tons (35% reduction compared to FY 2004)
- ii) Promoting recycling of waste plastics in order to reduce final disposal into zero
- iii) Increasing recycling of construction sludge by 50%

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Plan objectives

計画目標

iv) Establishing a management system of hazardous waste inside Tokyo Metropolis

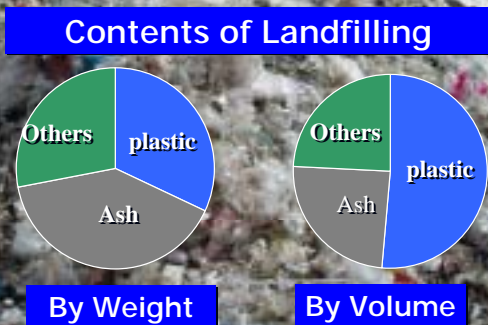
v) Strengthening extensive liaison in Metropolitan sphere in order to reduce illegal disposal of industrial waste into zero

vi) Establishing a system in which good industrial waste management contractors can raise their market value

Some Activities for Waste Reduction and Promotion of Recycling

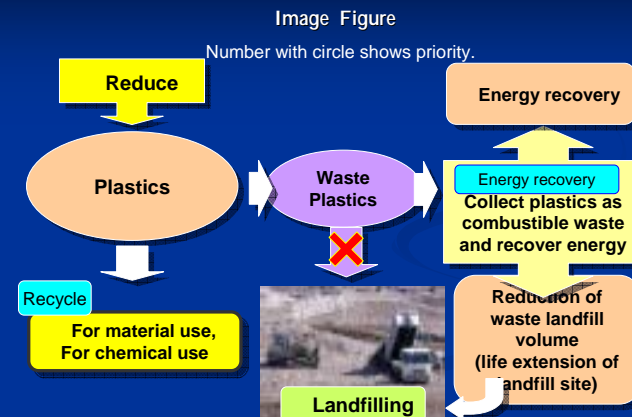
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Toward 0 (Zero) Landfilling



TMG's landfill site

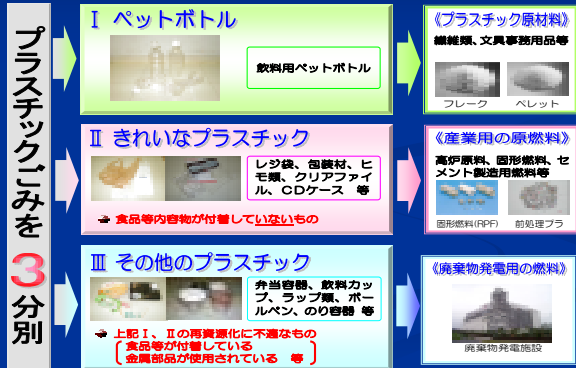
Promotion of Plastic Recycling



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Promotion of Plastic Recycling

- Waste plastics which are not dirty should be recycled for resources or fuels for industry.
- Other waste plastics should be lead to fuels for waste power generation.



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Recycling of Incineration Ash



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Recycling of Incineration Ash



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Toward establishing a system in which good industrial waste management contractors can raise their market value

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Tokyo Super Eco-town Project

Object

To promote the development of advanced and highly reliable waste treatment and recycling facilities

Public-Private Partnership Method

TMG selected the private companies among applicants in 2002
 Private companies acquired TMG land in waterfront area.
 Private companies are required to develop and operate the facilities.
 TMG gave technical support for environmental aspects.

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Super Eco-Town Project

スーパーエコタウン事業

C&D Waste Recycling Plants



E-Waste Recycling Plants



PCB Waste Disposal Plant



Gasification & Melting Power Plant



Food Waste Recycling Plants



建設混合廃棄物リサイクル施設 1 Construction and Demolition Waste Recycling



建設系混合廃棄物
Construction and demolition waste



事業系産業廃棄物
Business-related industrial waste



961t/日(day)

94%リサイクル 94% is recycled

再生砂
Recycled sand
Approx. 300t/日(day)



エコフォーム
Eco-Form
Approx. 10t/日(day)



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建設混合廃棄物リサイクル施設 1 Construction and Demolition Waste Recycling



産業廃棄物(建設系混合廃棄物 / 事業系産業廃棄物)
Industrial wastes (construction and demolition waste / business-related industrial waste)



一般廃棄物(廃プラスチック類 / 木くず)
General wastes (plastic waste / scrap wood)



928t/日(day)

リサイクル率90%以上 Recycle rate of over 90%

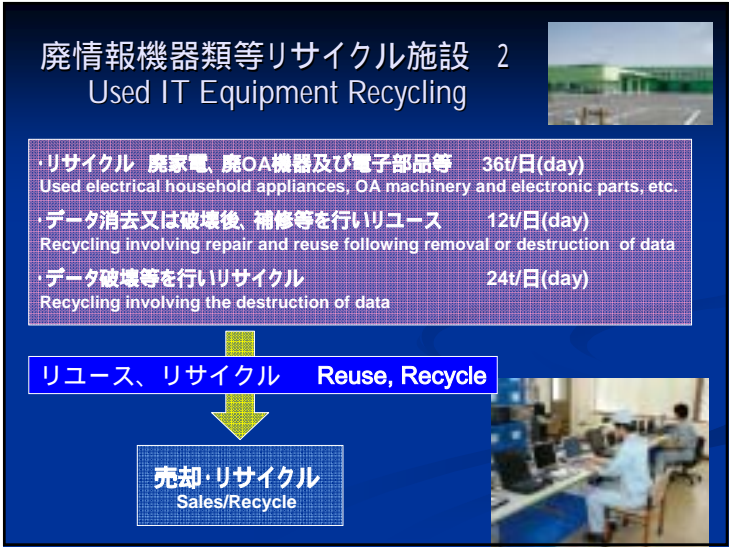
再生砂
Recycled sand
Approx. 80t/日(day)



その他の品目
Other items
Approx. 783t/日(day)



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What's NEW!

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Recycling of Rare Matal

- Electric products and rechargeable batteries contain noble metal and rare metal
 - Noble Metal and Rare metal: gold, silver, cobalt, palladium, indium
- As Japan is an import-oriented country, it would be for us important to recycle those items.

	gold	silver	copper	palladium
Per mobile phone	0.028 g	0.189 g	13.71 g	0.014 g
Per one ton of mobile phone	280 g	2 kg	140 kg	140 g
Cf. Per one ton of natural ore	0.92 g	93 g	12 kg	1.81 g

平成20年11月 総務省会議資料(循環型社会白書(平成13年度)より作成)から引用

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Current Situation of E-Waste Recycling

- Home Appliance (TV set, Air conditioner, Refrigerator, Washing machine)
 - Included Home Appliance Recycling Act
- PC
 - Designated as products which must be taken back after use by manufacturer
- Rechargeable Battery
 - Designated as products which must be taken back after use by manufacturer
- Mobile phone, PHS, Rechargeable battery, Charger
 - **Manufacturers are spontaneously take back and recycle them.**

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Recycling activities for mobile phone

Mobile Recycle Network

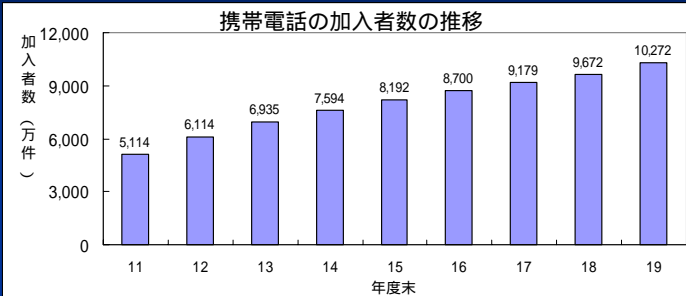


- Collect all kind of waste equipments (mobile phone, rechargeable battery and charger) **freely of all makers and telecommunications carrier**
- Collect at about 10,400 mobile phone shop in Japan
- Hand out those equipments to recycler

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Popularization of mobile phone

Trend of Mobile phone Subscribers



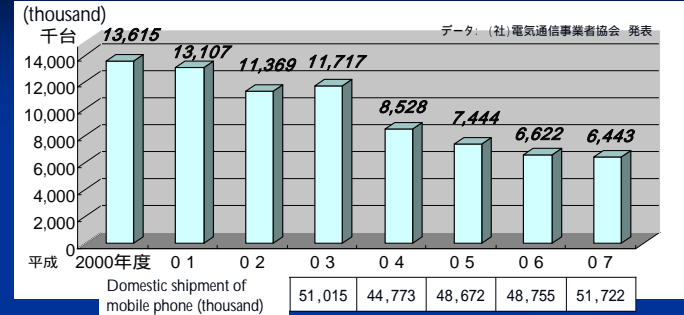
総務省 平成19年度・20年度 情報通信白書をもとに作成
PHSは含まない。

Total subscribers of mobile phone and PHS
about 110 million (Nov.2008)

Population of Japan
128 million(2008.12.1)

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Trend of collection number of mobile phone and PHS



データ: (社)電気通信事業者協会 発表

データ: (社)電子情報技術産業協会 発表

- Getting smaller and smaller the amount of collection
- Most people do not discard old equipment when they buy new one because they want to keep them for memory and collection they are anxious about leaks of personal information

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Promotion of collecting mobile phone by the cooperation between TMG and Businesses

Council for promotion of products which include rare metal

- Study about cooperation between the Civil Service and Businesses for promoting rare metal collection included in mobile phone.
- Conduct test collection of mobile phone at university, subway station, etc. in order to inform the recycle system to the people and increase the number of collection for two month (Oct 2008~Dec 2008).

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Setting up collection box in Tokyo

[Collection item] Mobile phone, PHS, Rechargeable battery, Charger

Result (Collection amount)

- Mobile phone and PHS 1,522
- Charger 527
- Rechargeable battery 1,371

Attitude survey

Many people did not know the collection system, but think that they want to do recycling activity.

Most strong reason to motivate people to participate recycling activity is security for keeping personal information safely.



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For developing Sound Material Cycle society by promoting waste reduction and recycling activities

■ Citizen

should reduce waste as much as possible by the act such as selecting products which will not easily be waste.

■ Businesses

Discarding aspect : should conduct waste reduction activities, such as waste plastics etc..

Manufacturing aspect : should improve environmental friendly products and conduct collecting and recycling activities of end-of-use products.

■ TMG

should coordinate new resource recycling system which would be born by the cooperation of private companies and municipalities, make broad system.

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