



Original Purposes & Multi-Applications of National Statistics Used for Japan's GHG Inventory -Waste Sector-

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Outline of the Presentation



1. Main Issues Related to Activity Data in Waste Sector
2. Common Sources for Activity Data
3. Major Statistics for Waste Sector in GHG Inventory of JAPAN
4. How the Statistical Surveys are Conducted
5. Multiple Use of Statistical Data
6. Estimation of Non-Available Data Using Available Statistics

1. Main Issue Related to Activity Data



● *Lack of Data*

- A common and major problem in many countries
- Preliminary survey for WGIA5 showed that the countries are lacking in activity data on:
 - Solid waste disposal on land
 - Waste management practices
 - MSW generation
 - Waste water handling

2. Common Sources for Activity data



➤ Statistics Data

- National statistics
- International statistics

➤ Other Data

- Data provided by ministries
- Data provided by industrial groups and private firms

➤ Default Data

- Revised 1996 IPCC Guidelines for National GHG Inventories
- GPG and Uncertainty Management in National GHG Inventories (GPG2000)

3. Major Statistics (Waste Sector in GHGI of JAPAN)

- Results of Study on Municipal Solid Waste Disposal ([Ministry of the Environment](#))
- Report of the Research on the State of Wide-range Movement and Cyclical Use of Wastes ([Ministry of the Environment](#))
- Waste Treatment in Japan ([Ministry of the Environment](#))
- Study on the Control of Burdens Generated ([Ministry of the Environment](#))
- Chemical Industry Statistical Yearbook ([Ministry of Economy, Trade and Industry](#))
- Textiles and Consumer Goods Statistics ([Ministry of Economy, Trade and Industry](#))
- Table of Industrial Statistics - Land and Water ([Ministry of Economy, Trade and Industry](#))
- Trade Statistics of Japan ([Ministry of Finance](#))
- Sewage Statistics, Admin.Ed., ([Japan Sewage Works Association](#))
- Cement Handbook ([Japan Cement Association](#))

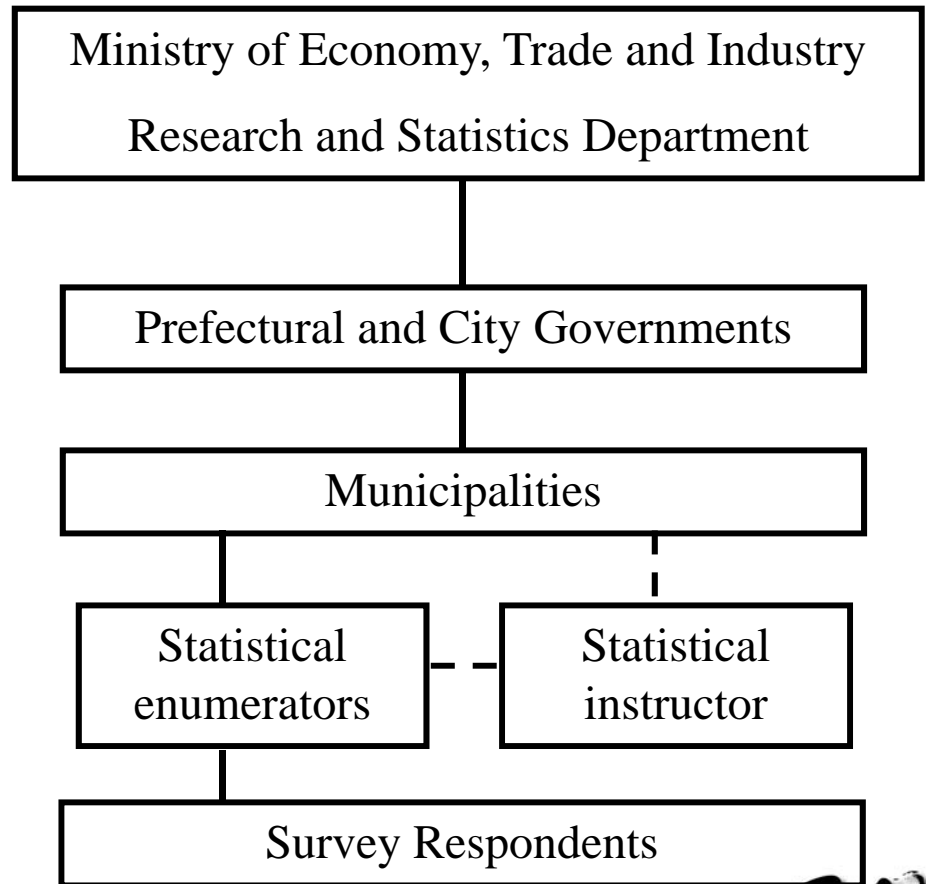
4. How the Statistical Surveys are Conducted

● *Table of Industrial Statistics**

■ Main purpose:

To elucidate current status of manufacturing industry and to provide basic data/information for country's and local governments' administration such as industrial policy and small and medium enterprises policy, and to develop the basis for economic statistics system and to provide data for economic analysis and various economic indicators

■ The survey flowchart



*<http://www.meti.go.jp/statistics/index.html>

5. Multiple Use of Statistical Data



● *Table of Industrial Statistics**

➤ Economic and industrial policy

- ✓ Basic materials for industrial measures and policies
- ✓ Understanding of actual status of the usage of industrial water and application in drafting of an demand and supply plan
- ✓ Industrial complex development plan and business enterprises measures and policies
- ✓ Mining and manufacturing indices
- ✓ Inter-industry table and national accounts estimates

➤ White paper

- ✓ White paper on small and medium enterprises in Japan
- ✓ White paper on metropolitan area
- ✓ White paper on manufacturing
- ✓ White paper on the national lifestyle

5. Multiple Use of Statistical Data



- *Table of Industrial Statistics**

- Other statistics: Basic information for implementation of various statistical survey

- ✓ Survey on food distribution structure

- Business enterprises, universities, research institutes and international organizations

- ✓ Basic information for various analysis such as market forecast, learning material for social science and regional industrial analysis

- ✓ Provide data to Organization for Economic Co-operation and Development (OECD)

- GHG Inventory

- ✓ 6.B.1. Industrial wastewater

6. Estimation of Non-Available Data

6.A. 1. Emissions from controlled landfill sites

①. Non-biodegradable sewage sludge landfill

Item	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Landfill on land	kt/yr (wet)	901	901	901	901	901	901	760	804	813	803	792	777	758	705	710	726	741	648	615	687	577	369	325	328	310	249
Sea area landfill	kt/yr (wet)	393	393	393	393	393	393	312	247	317	322	322	320	319	318	319	285	127	72	65	59	20	11	17	10	5	0
Total	kt/yr (wet)	1,294	1,294	1,294	1,294	1,294	1,294	1,072	1,051	1,130	1,125	1,114	1,097	1,077	1,023	1,029	949	868	720	680	746	597	380	342	338	315	249

②. Biodegradable sewage sludge landfill

Item	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Landfill on land	kt/yr (dry)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	177	154	151	169	137	89	80	86	79	53
Sea area landfill	kt/yr (dry)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	15	15	18	8	3	4	3	2	0
Total	kt/yr (dry)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	202	169	166	188	145	93	85	89	81	53

- Sewage Statistics Pandect (Data for 1980-1994)
- Sewage Statistics (Data for 1996 ~)
- Average of data for 1994 and 1996 (Data for 1995)

③ Ratio of ① and ②

Item	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Landfill on land	%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.8%	23.8%	24.5%	24.7%	23.7%	24.2%	24.7%	26.3%	25.5%	21.2%
Sea area landfill	%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.1%	20.8%	23.3%	30.8%	39.3%	28.0%	27.0%	28.5%	30.7%	20.4%
Total	%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.3%	23.5%	24.4%	25.2%	24.3%	24.4%	24.8%	26.3%	25.5%	21.2%

21.4%
26.8%

➤ Estimation of the amount of biodegradable sewage sludge landfill:

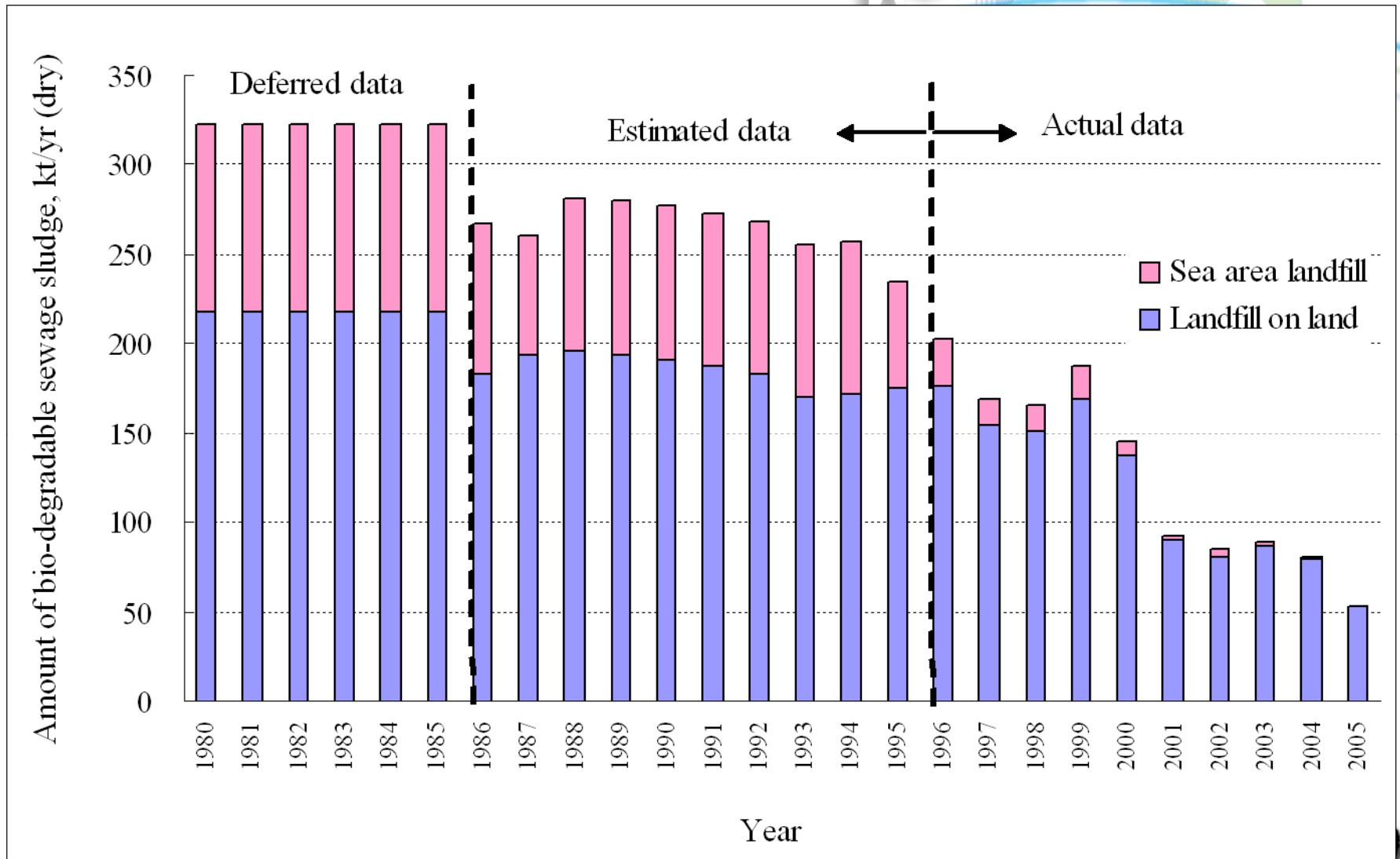
Data for 1980 ~ 1995 = ① data × ③ data (average of 1996-2000)

Estimated amount of biodegradable sewage sludge landfill

Item	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Landfill on land	kt/yr (dry)	217	217	217	217	217	217	183	194	196	194	191	187	183	170	171	175	177	154	151	169	137	89	80	86	79	53
Sea area landfill	kt/yr (dry)	105	105	105	105	105	105	84	66	85	86	86	86	86	85	86	86	25	15	15	18	8	3	4	3	2	0
Total	kt/yr (dry)	323	323	323	323	323	323	267	260	281	280	277	273	268	255	257	235	202	169	166	188	145	93	85	89	81	53

6. Estimation of Non-Available Data

● Amount of biodegradable sewage sludge landfill



Summary



- Possible Solutions to Improve Data Collection
 - Effective use of available data sources
 - To take statistics to make consistent data over a time series
 - ✓ Recognition of additional benefits of taking statistics (multiple use of statistical data)
 - To gain the cooperation of relevant ministries and agencies in collection and producing of inventory data
 - ✓ To enhance awareness of the importance of GHG inventory



Thank you