



Methane to Markets

Partnership in Action U.S. and China Landfill Gas to Energy Project Collaboration

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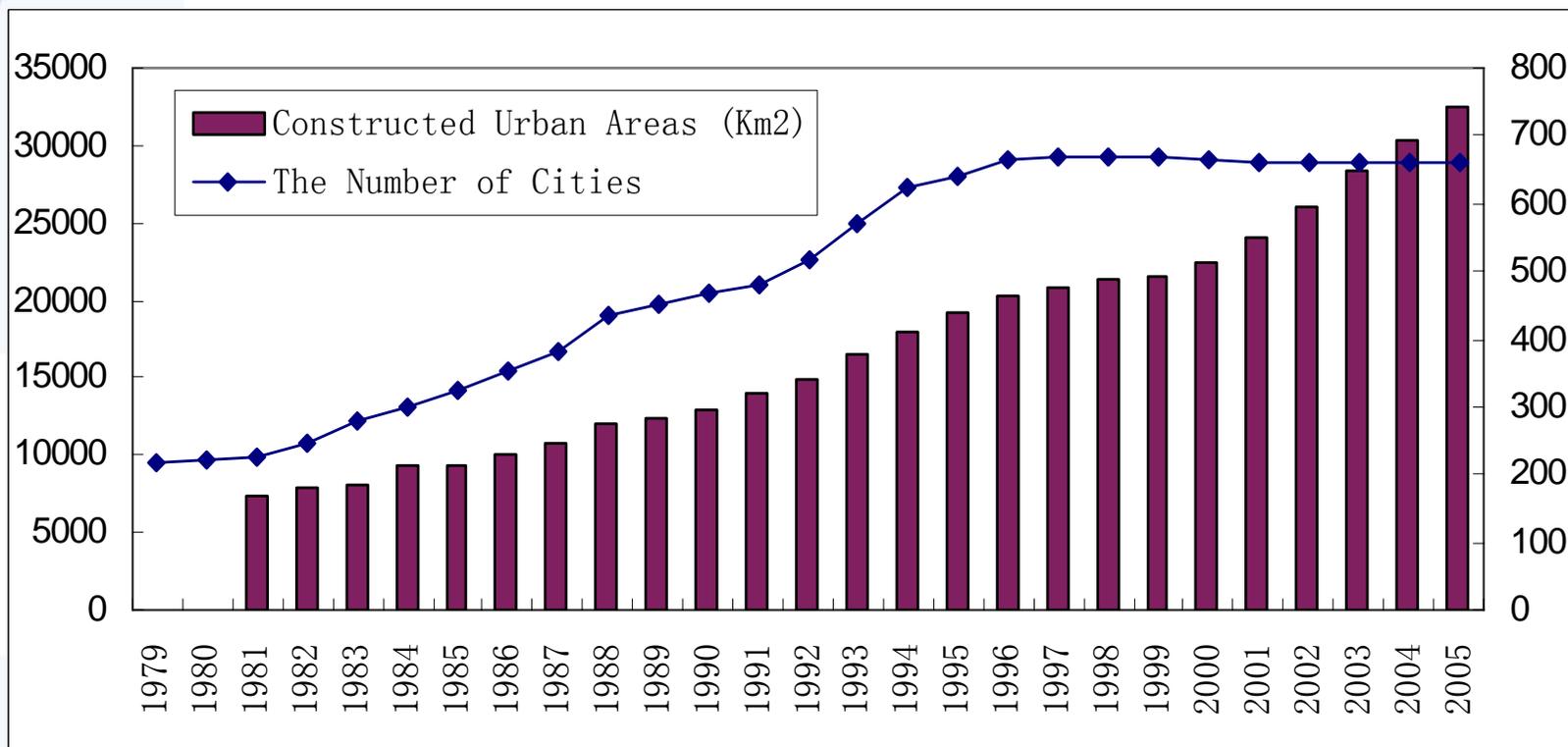
May 3, 2007

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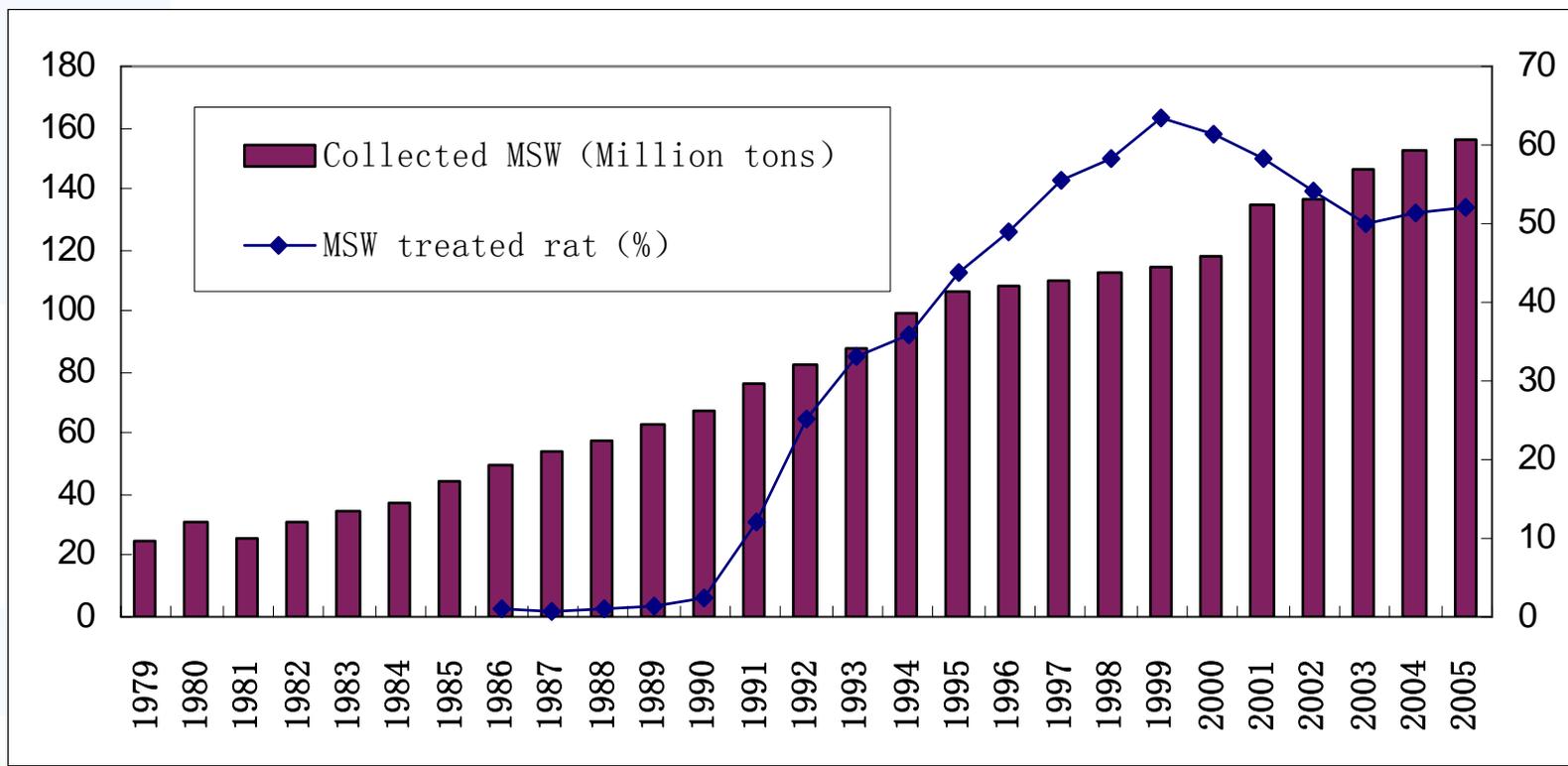
Main content

- 1. General situation of MSW Treatment**
- 2. Landfill development**
- 3. Landfill Data Collection and evaluation**
- 4. LFG Projects in the future**

Cities and Urban areas in China



MSW collection and disposal in China



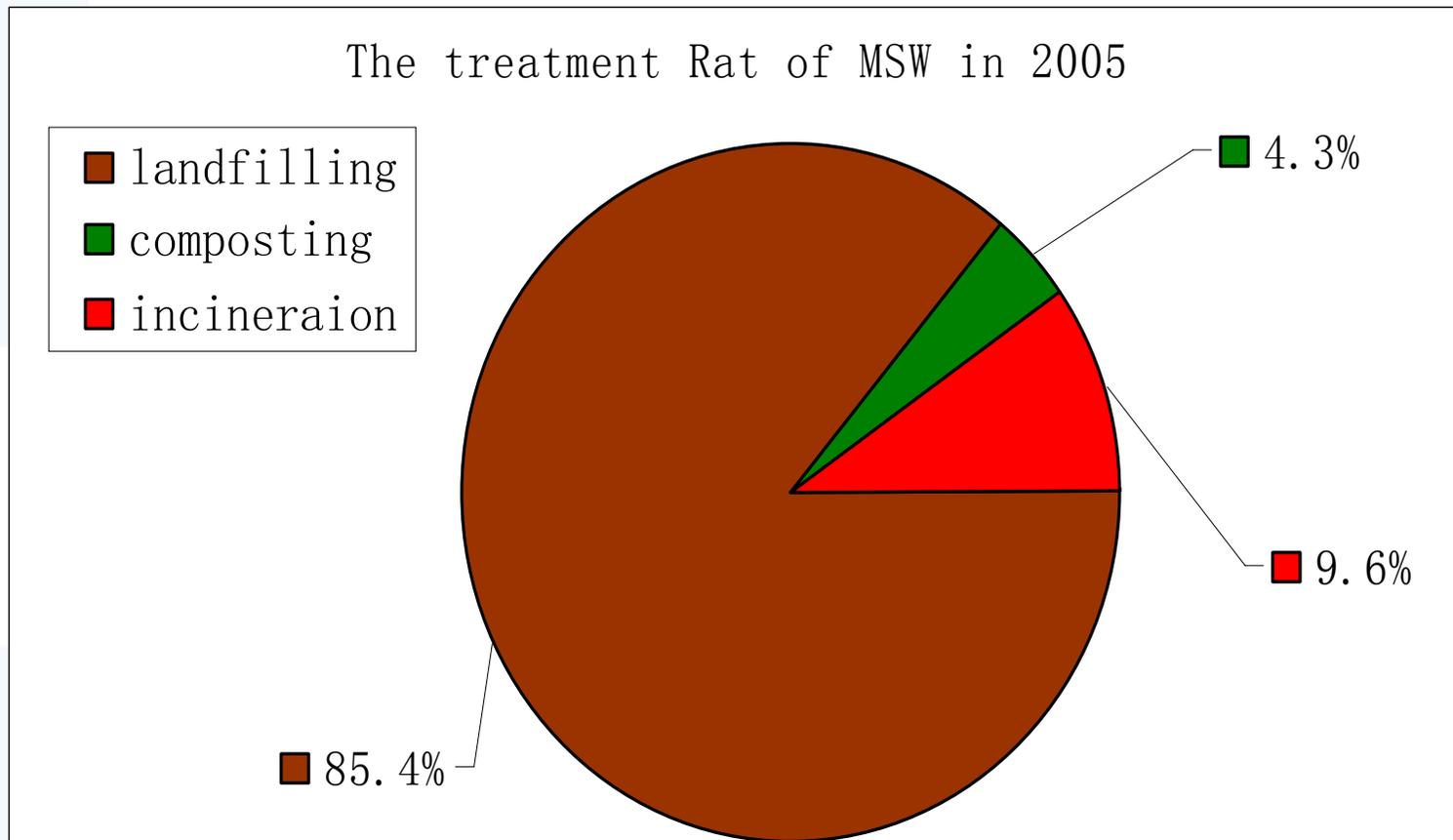
MSW Treatment capacity statistics from 2000 to 2005

	2000	2001	2002	2003	2004	2005
total	555	741	651	574	559	477
Landfill sites	484	571	528	457	444	365
Composting Facilities	41	134	78	70	61	46
Incineration facilities	23	36	45	47	54	66

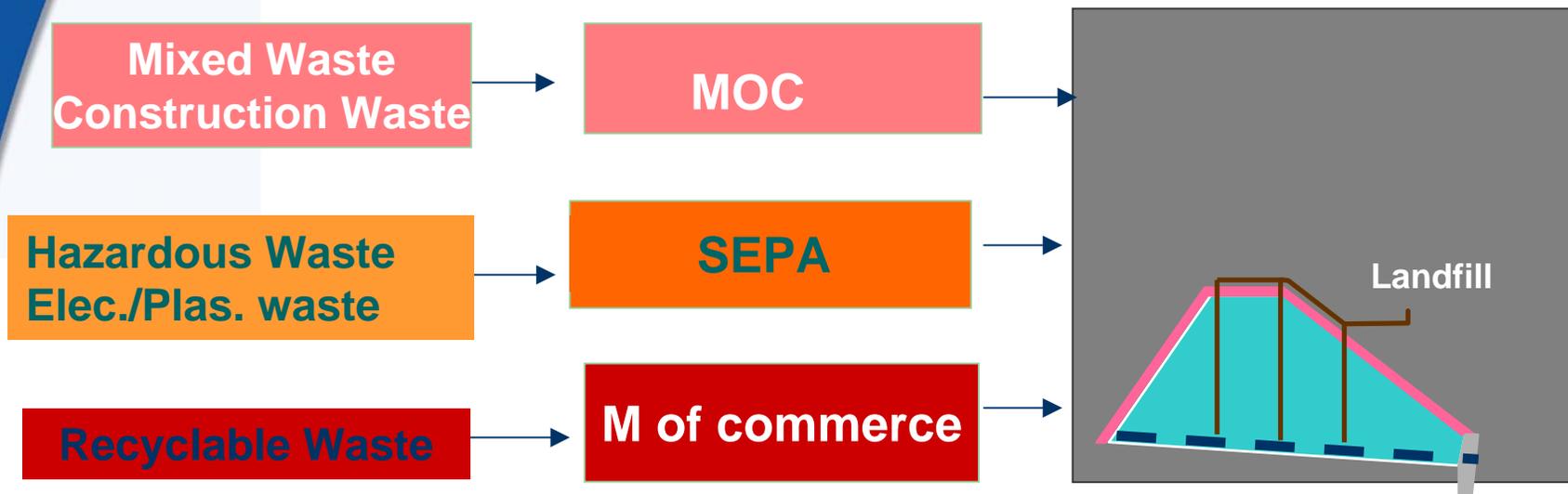
MSW Treatment capacity statistics from 2000 to 2005

	2000	2001	2002	2003	2004	2005
total(1000t/a)	193.6	224.7	215.5	218.6	238.5	257.054
Landfill (1000t/a)	181.9	192.8	188.5	187.1	205.9	212.627
Composting Facilities (1000t/a)	8.9	25.5	16.8	16.5	15.3	11.767
Incineration (1000t/a)	2.9	6.5	10.2	15.0	16.9	32.21

MSW Treatment Rate in 2005



The Existed Structure of MSWM in China



More and more sanitary landfill are built

Landfill in Haikou



Landfill in Beijing



Landfill in Guangzhou

More and more sanitary landfill are built



compactor



More and more sanitary landfill are built



Leachate treatment in Qingdao



Leachate treatment in BEIJING



More and more sanitary landfill are built



Landfill gas burner in Qingdao



Landfill gas generator in Wuhan
(2 × 600KW)

Landfill Data Collection and evaluation

- The Urban Construction Design and Research Institute has been collecting data on landfills through out China
 - Planned visit with 400 landfills
 - Including landfill liners, collection system, cap and cover
 - Prioritized sites

Landfill Data Collection and evaluation

- **There 12 LFG projects is approved by NDRC for CDM (by the end of March 2007)**
- **There 16 landfill sites with LFG utilization projects and most of LFG are used for power generation (by the end of March 2006)**

Landfill Data Collection and evaluation

Landfill evaluation result in 2006

	I grade landfill site	II grade landfill site	III grade landfill site	IV grade landfill site	TOTAL
Quantity	58	132	48	134	372
Capacity (tpd)	54722	72850	28281	38903	194756

I grade , II grade: sanitary landfill
 IIIgrade,IVgrade: not meet the sanitary landfill requirement



LFG Projects in the future

- More and more LFG Projects are developed
- LFG power generation as renewable energy will get more than 0.25 Yuan RMB (ABOUT 35 US Cent) Per KWh
(according to the law of renewable energy started January 1 2006)

A Partnership is Formed

- China is a founding partner of Methane to Markets
- Subcommittee representatives from the Department of Urban Construction, Ministry of Construction and Urban Construction Design and Research Institute, Ministry of Construction
- China is the host country for the upcoming Partnership Expo- held in Beijing



The End

- *All are welcome to Beijing to participate the Expo and get the project Opportunities for the Expo*
- Thank you for your attention!