

Private sector participation for Waste Management

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Overview

- Financial and management challenges for municipal waste management sector
- Important features of Private Sector Participation (PSP) for waste management
- Examples of PSP
- IETC activities under proposed project on PSP



Financing needs and efficiency targets in waste management

OECD countries:

Municipal waste – USD120 billion/year

Industrial waste – USD150 billion/year

Developing countries:

20-50% of recurring budget of municipalities is spent on solid waste management although only 50% of urban population is covered. In low-income countries collection alone drains 80-90% of total waste management budget.

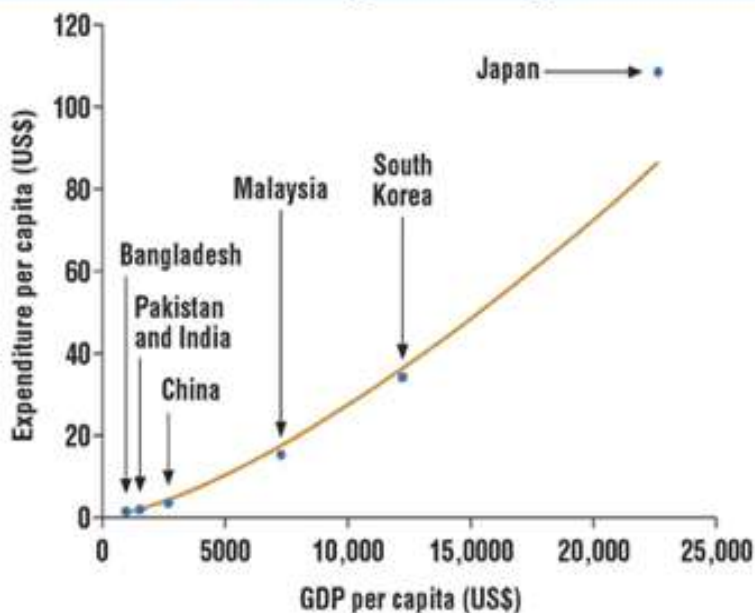


Figure 16: Municipal Urban Waste Services Expenditures

City, Country	Year	Per Capita Expenditure on SWM (US \$)	Per capita GNP (US \$)	% GNP Spent on SWM
New York, USA	1991	106	22,240	0.48
Toronto, Canada	1991	67	20,440	0.33
Strasbourg, France	1995	63	24,990	0.25
London, England	1991	46	16,550	0.28
Kuala Lumpur, Malaysia	1994	15.25	4,000	0.38
Budapest, Hungary	1995	13.80	4,130	0.33
São Paulo, Brazil	1989	13.32	2,540	0.52
Buenos Aires, Argentina	1989	10.15	2,160	0.47
Tallinn, Estonia	1995	8.11	3,000	0.26
Bogotá, Colombia	1994	7.75	1,620	0.48
Caracas, Venezuela	1989	6.67	2,450	0.27
Riga, Latvia	1995	6	2,420	0.25
Manila, Philippines	1995	estimate 4	1,070	0.37
Bucharest, Romania	1995	2.37	1,450	0.16
Hanoi, Vietnam	1994	predict 2	250	0.80
Madras, India	1995	1.77	350	0.51
Lahore, Pakistan	1985	1.77	390	0.45
Dhaka, Bangladesh	1995	1.46	270	0.54
Accra, Ghana	1994	0.66	390	0.17

(MacFarlane, 1998)

PSP to overcome the challenges

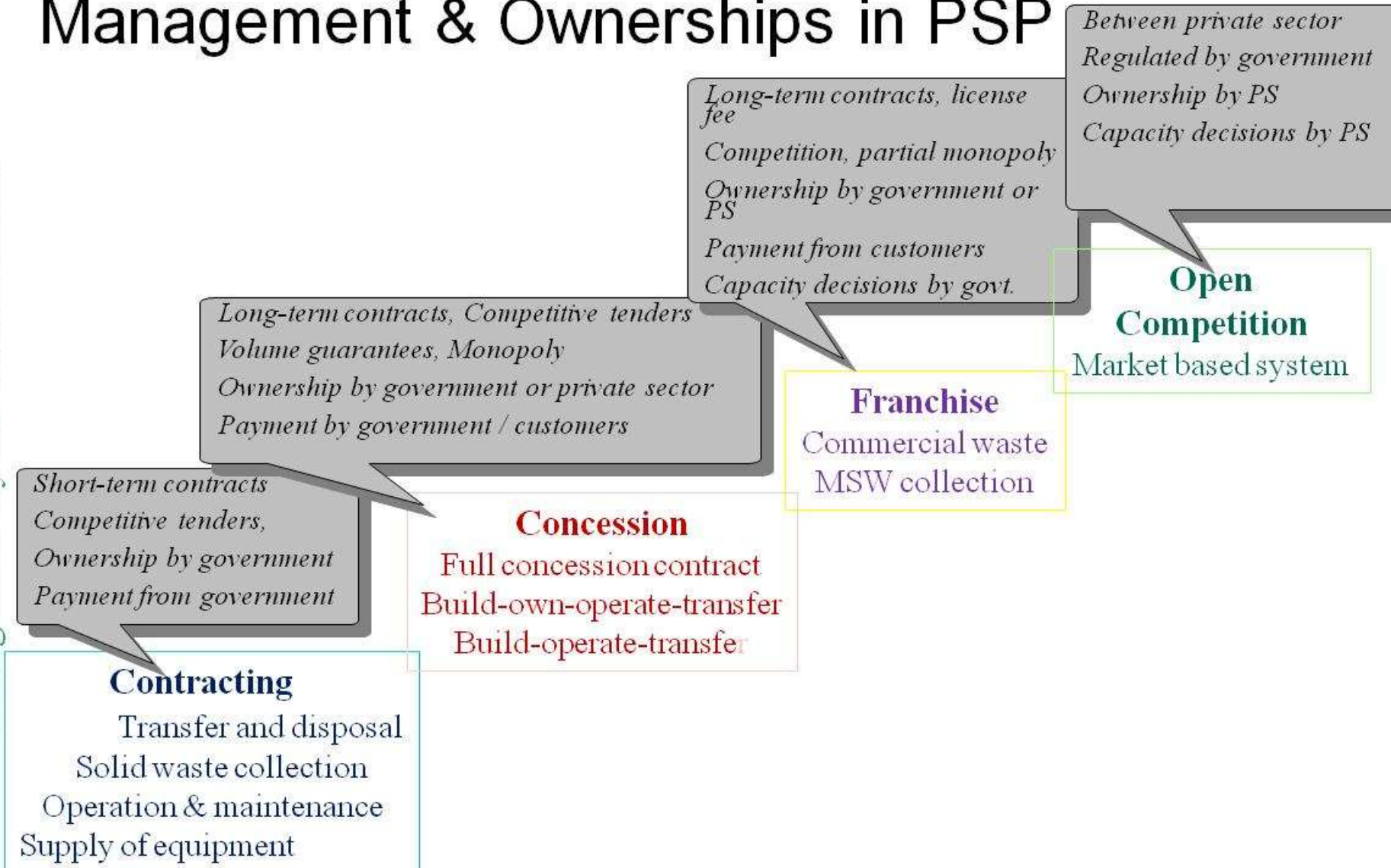
- Private sector participation (PSP) for service delivery, to generate investments and to improve efficiency of services (waste collection, transfer stations with material recovery facility, waste treatment and resource recovery, final disposal and recycling)
- PSP can be used as one of the tools to improve various segments of waste management chain
- Public-private partnerships are one of the established processes to bring private sector investments and to improve efficiency public services.

Models of PSP in wastsector



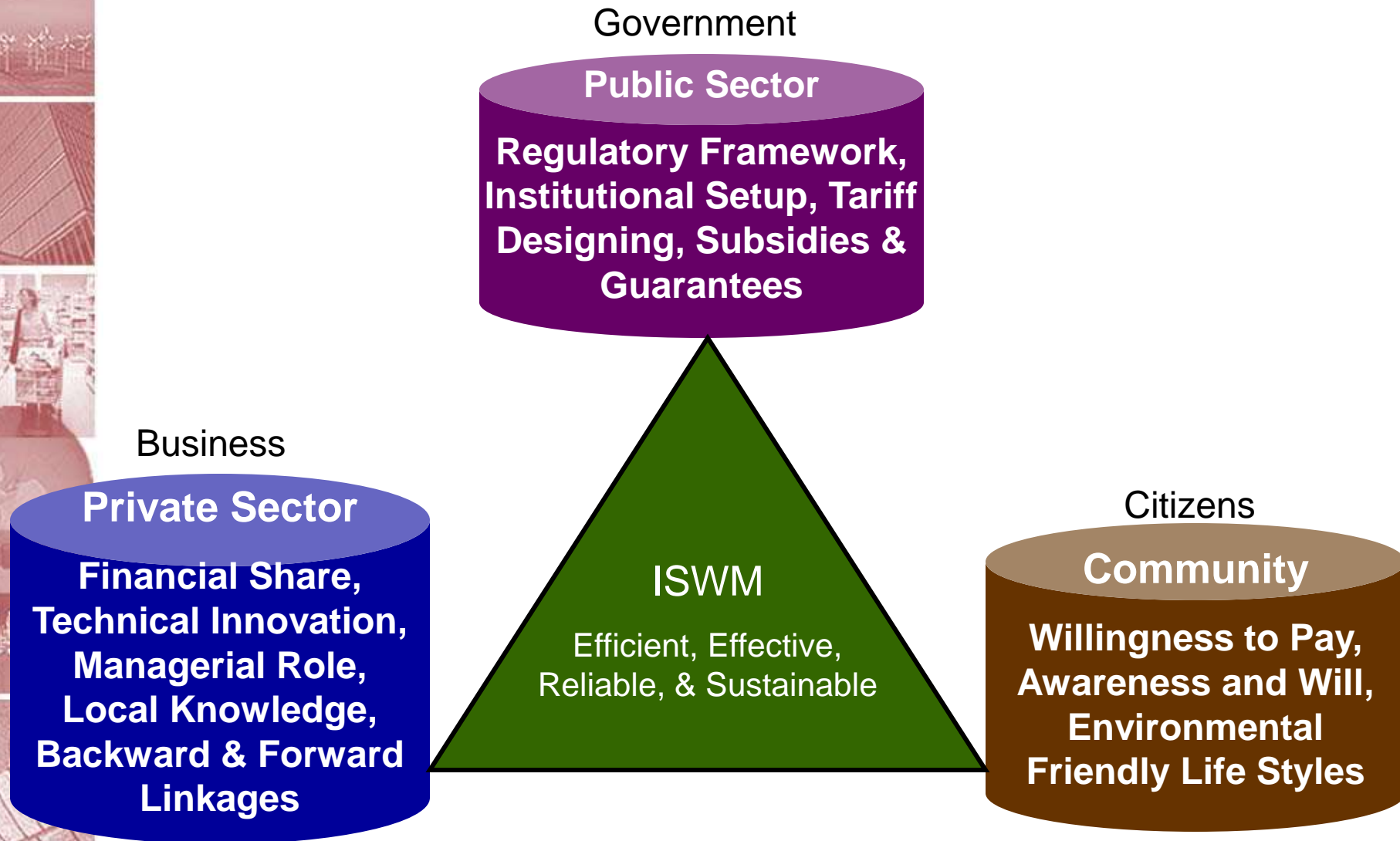
Management & Ownerships in PSP

Management by the Private Sector



Ownership and Investment by the Private Sector

Stakeholders Roles in PSP



Some examples PSP for Waste Management

- Collection and disposal system in Macao, China
- PSP for waste management in Kuala Lumpur
- Community collection in Dhaka
- PSP in Phnom Penh



Macao, China

- Since 1992, two private companies are handling collection & disposal
- Companhia de Sistemas de Resíduos, Limitada (CSR) carries out collection, cleaning and maintenance of public garbage containers (380 staff, with 25 refuse compacted collection truck, 4 high pressure water jet vehicles, 6 sweeping vehicles)
- Another company manages incineration of 36 tons/per hour, 283,800tons/per year and generated 12MW of power for its own consumption
- Refuse collection around mid-night to avoid traffic jams
- The private sector's motivation for profit has led to the efficient conduct of activities to consistently improve returns
- Development of innovative methods to enhance services, more investment in the quality of assets to reduce long term maintenance and operating costs
- The incineration is the major method to dispose the waste. This also helps to generate electricity

Kuala Lumpur

- Alam Flora Sdn Bhd, a private company, is responsible for the management of solid waste covering a total area of 72,263 km²
- Such extensive coverage enables the company to undertake more efficient and effective management due to economies of scale
- The company trains the previous and new small contractors and provides them with modern technology to enable them to carry out their work professionally
- With better scheduling, and human resources and equipment, collection trips and collection rate have significantly improved
- The questions regarding the amount to be collected from users and the basis on which the fees are to be collected are not yet settled down. This issue has political and social implications
- The turnaround time for each garbage truck is severely hampered by the worsening traffic conditions in the city. The possible measures collection times at night or very early in the morning, and the number and location of transfer stations

Dhaka

- In Kalabagan, a densely populated and typical of many inner city areas, residents remained hostage to the refuse that they themselves produced regularly
- In 1987, a community group purchased two rickshaws and modified them into waste collection vans to start door-to-door collection of domestic waste
- To meet the running costs and bit of a profit, they charges nominal fee from each house
- The success of the operation led to the formation of another four community based organization (CBO) for waste collection
- However, these initiatives failed to bring overall success of solid waste management, as these activities were not integrated within the overall SWM system of the local government (DCC)
- Under a pilot activity of Kitakyushu Initiative, DCC has established a mobile transfer station to coordinate with these door-to-door collection activities of CBO

Phnom Penh

- Municipality of Phnom Penh (MPP) through its department of Phnom Penh Waste Management (PPWM), was responsible for overall SWM, is still in charge of operating the existing landfill site
- The private company CINTRI (Cambodia) Ltd., a member of the Canadian CINTEC Group, was given a 57 year franchise-contract in 2002 for collecting communal waste and cleaning of streets
- The only source of income for CINTRI is based on the right to collect fees from urban households and small businesses. MPP is the client of CINTRI and the applicable tariffs are negotiated between these two parties without the involvement of PPWM
- The costs of street cleaning must be covered by the collected fees for household waste. The current tariff structure, which is based on fixed fees, is seen as unfair by many citizens
- This unsatisfying situation is caused by low levels of fee collections in low income areas, which provides no incentives and economic reasons for CINTRI to serve these areas
- Because PPWM was not involved in bidding and pricing processes, it suffers a very weak position to monitor or even influence the service levels of CINTRI
- CINTRI is doing its best to provide adequate services within the limitations of cost recovery
- The private sector must not be made responsible for structural and institutional problems that can be solved only by the public sector

Lessons learned

- To cope with rapidly growing waste generation rates and limited local resources in Asian developing countries, private companies participate since many years in solid waste management projects through contracting, concession, franchise, and open competition
- Experience in different countries show, that the success of PSP depends on the existence of appropriate institutional and regulatory environments as well as proper risk allocation between public and private sectors
- Without strong institutions, regulations, and monitoring, it is difficult to obtain the full efficiency and cost-effectiveness that private sector participation can deliver
- Legal foundations and economic incentives must be developed to ensure environmental friendliness as well service delivery for low-income groups



Some useful materials

OECD Principles for Private Sector Participation in Infrastructure (2007)

<http://www.oecd.org/investment/investmentpolicy/38309896.pdf>

European Commission Directorate-general regional policy Guidelines for Successful public-private partnerships (march 2003)

http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

Public-Private Partnerships Reference guide (World Bank Institute 2012)

<http://wbi.worldbank.org/wbi/Data/wbi/wbicms/files/drupal-acquia/wbi/WBIPPIAFPPReferenceGuidev11.0.pdf>

United Nations Development Programme: Public-Private Partnership for local Service Delivery Programme

(PPPSD http://www.undp.org/content/undp/en/home/ourwork/capacitybuilding/focus_areas/focus_area_details4/pppsd/programme-objective/)

PPIAF 2012 annual report RELEVANT FOR COMPENDIUM

http://www.ppiaf.org/sites/ppiaf.org/files/publication/PPIAF_Annual_Report_2012_Final.pdf

P3 Guide a for Municipalities (Canada November 2011)

http://www.p3canada.ca/files/file/FederalP3Screen_UserGuide_en.pdf

PPP CANADA Identifying P3 Potential A Guide for Federal Departments & Agencies

http://www.p3canada.ca/files/file/FederalP3Screen_UserGuide_en.pdf

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*Partnership, Partnership
and Partnership
Thank You...*

