

# Private Sector Participation in Solid Waste Management of Developing Countries

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Social, Urban, Rural and Resilience Global Programs Unit

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# Have I learned anything over the years?

- Nothing is as it seems.
- Too many lies, too much fraud, and too little correct data.
- There is no substitute for field work.
- Investigate, investigate, investigate.
- Check and double-check.
- Generate data and use it to compare technical and public versus private options.
- Maximize competitive forces.
- Structure the deal to be win-win.



# How is the Solid Waste Sector Unique

- It is not a natural monopoly.
- It has many moving, portable and short-lived equipment units.
- It's services do not exclusively benefit the people served.
- There are extensive regional and global externalities.
- It is largely a public good.



# Solid Waste Activities Suitable for PSP

- Planning and Management of Services.
- Primary Collection.
- Secondary Collection.
- Transfer of Waste.
- Treatment of Waste (for recycling and resource recovery).
- Disposal of Waste (and residuals from treatment).
- Remediation/Reclamation of Disposal Sites.





# Types of PSP Contractual Agreements



- Private Sector Outsourcing ( PSO)
  - Licensing for Open Competition (customers choose service provider and pay for service)
  - Franchises for Zonal Services (government chooses service provider and customers pay for service)
  - Service Contracts for Zonal or Facility Activities (government chooses service provider and government pays for services)
  - Management Contracts for Oversight Activities (government pays the contractor to plan and improve overall systems)
  - Concession Contracts for Facility Activities (government allows service provider to develop revenues from recycling or resource recovery of wastes)
- Public/Private Partnerships (PPP):
  - Shared responsibilities, investments, costs and revenues (the most complex contractual format – should only be used for major investment projects)

# Who is the Private Sector



- PSO Informal Sector (women's associations, youth associations, waste picker associations, community groups, NGO's).
- PSO Formal Sector (micro-enterprises; small, medium and large companies; joint venture companies).
- PPP Formal Sector (large companies formed into special purpose vehicles; possible to require them to include some informal sector subcontractors).

# Revenue Opportunities



- Commodity markets for waste-derived materials.
  - Paper, metal, glass, plastic, tires, used oil, C&D wastes, compost.
- Carbon trading.
  - renewable energy, composting, landfill gas flaring, recycling.
- Renewable energy preferential pricing.
  - Biogas from biogas or landfills, waste-to-energy incineration, gasification/pyrolysis.
- Preferential procurements for recycled content.
- Subsidized markets, such as subsidized compost purchases.
- User charges.
- Tipping fees (including possible landfill taxes).

# Essentials

- Well sorted waste inputs to match technology.
- Competition from unbundling of some system elements.
- Economies-of-scale from clustering waste sheds for some system elements.
- Stringent emission standards to avoid EHS impacts.
- Facility setback criteria to avoid EHS impacts.
- Proven practical technology choices.
- Extensive public involvement to obtain public support and cooperation.





# Risks



- Lack of public cooperation with system requirements.
- Lack of adequate public financing support to enable financial sustainability.
- Poor public awareness about advancements in waste technologies and reactive public opposition to new facilities.
- Global market demand and pricing fluctuations for recyclables and recovered resources.
- Political intervention.

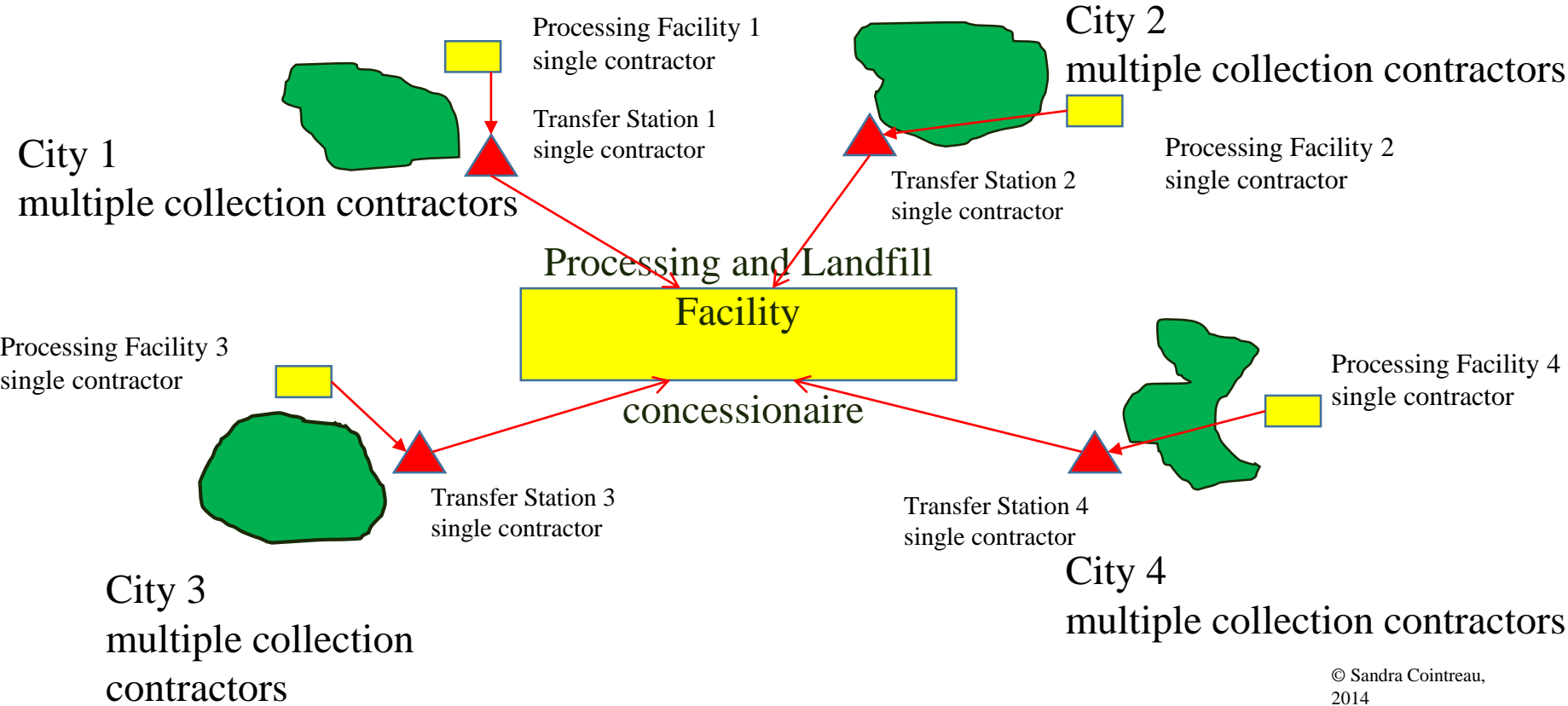
# Common Mistakes

- Creating monopolies.
- Excluding the informal sector.
- Excluding women.
- Not achieving critical mass, economies-of-scale.
- Over specifying how the private sector should work.
- Not including performance-based rewards.
- Government wanting too big a share of the revenues.
- Not providing enough land, including buffer areas.
- Too little time for the private sector to mobilize. Poor hand-over from one service provider to another.
- Inadequate supervision of design, construction, and operation.



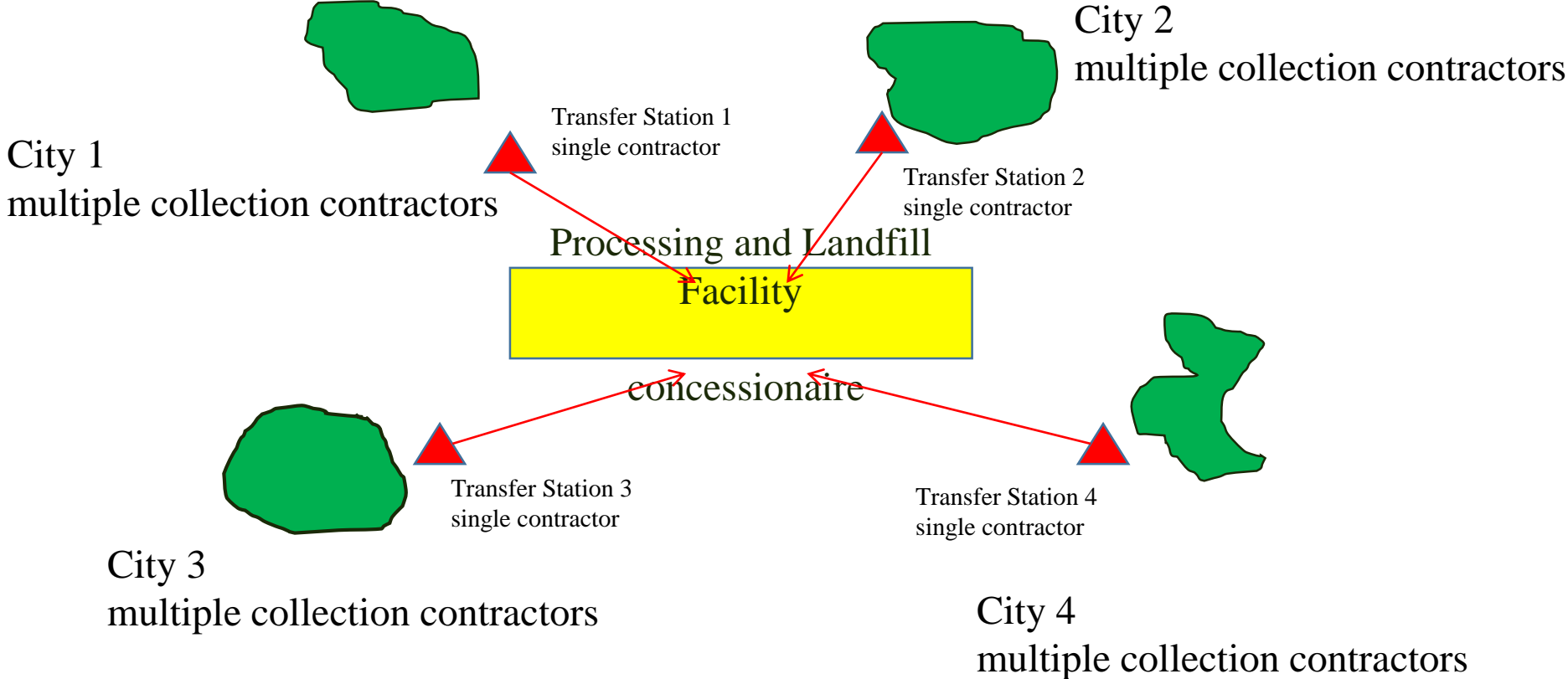
# PSP Option for Multiple Small Cities

100,000 to 1 million people, 50 - 500 tonnes/day



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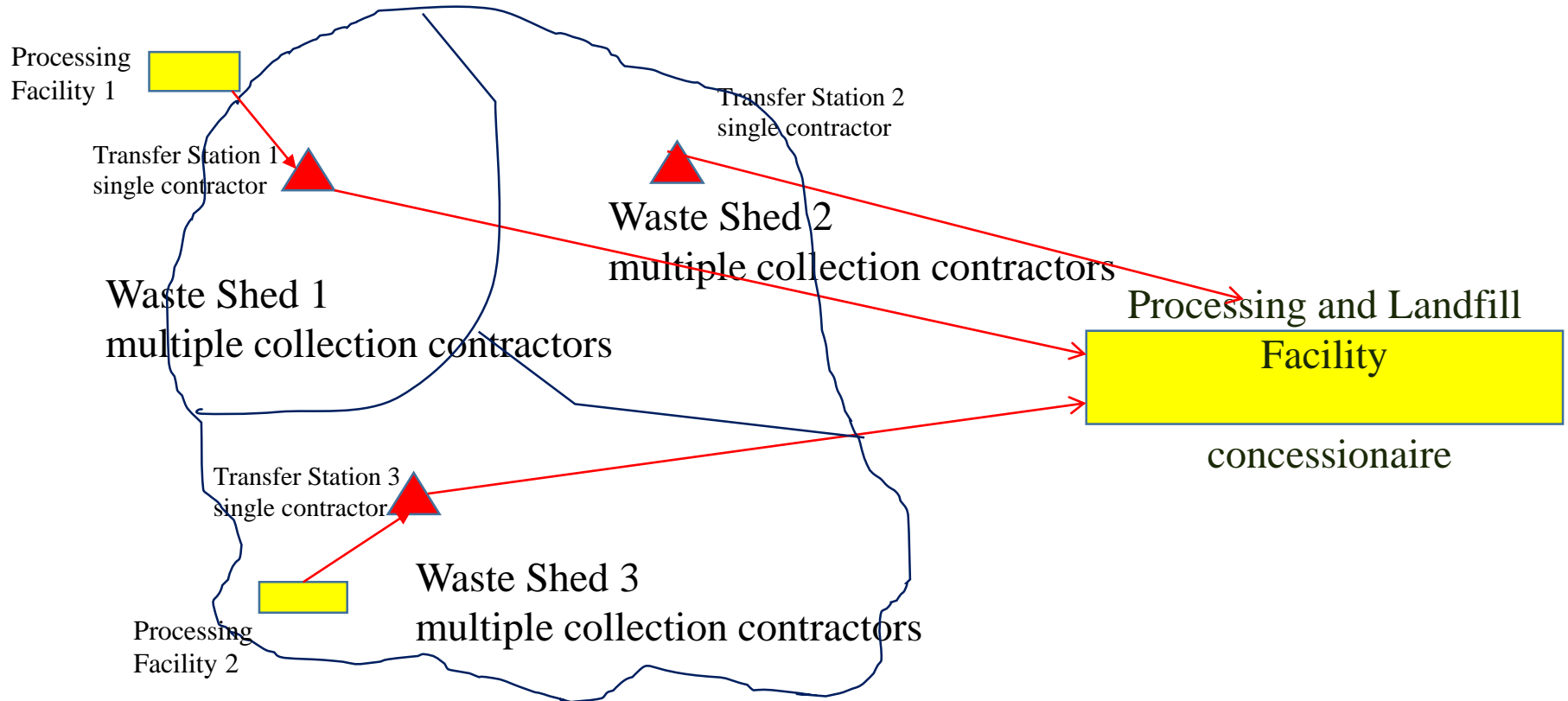
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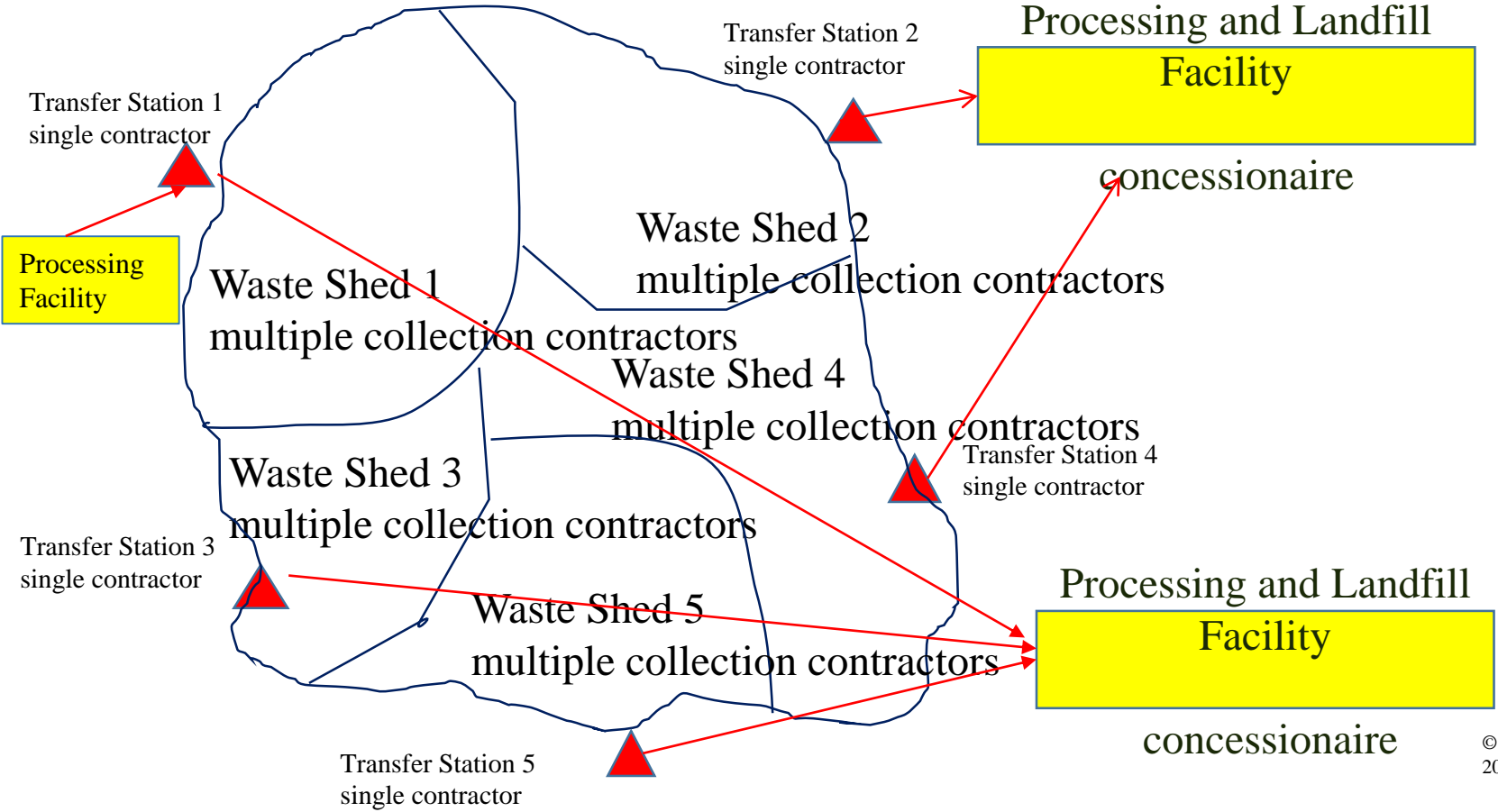
# PSP Option for Medium City

1 to 5 million people, 500 – 4,000 tonnes/day



# PSP Option for Large City

5 to 10 million people, 4,000 – 10,000 tonnes/day



# Due Diligence



- Value for Money analysis.
- Enabling framework – regulations and economic instruments.
- Obtaining public support for the system changes and facility siting.
- Tender documents that enable competitive bidding – Level Playing Field.
- Adequate time for advertising and short listing qualified firms.
- Contract documents with Shared Risk Allocation.
- Performance measures linked to performance incentives.
- Well structured monitoring responsibilities and reporting.

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