

# WASTE

advisers on urban environment and development



“A Horse of Different Colour”  
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# “A Horse of Different Colour”

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*Thanks as well as to the ILO, UNIDO, the IFC, and the Dutch Ministry of Foreign Affairs, and the European Union, all of whom, whether they actually understood it or not, were supporting the work for building an agenda of inclusion for high-performance recycling working with the global informal recycling sector.*

# Structure of this Presentation

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1. Welcome and a short biographical note
  2. Orientation to recycling in the 3-Rs, and its relationship to solid waste management
  3. Why recycling PPPPPs? Useful facts about the private recycling supply chain and the role of informal recyclers in it
  4. Some examples of global good practice
  5. Design principles for Asian countries for high-performance PPP(PP)s with the private informal & formal recycling sector
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## **2. A brief orientation to recycling, 'workhorse' of the 3-Rs**

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- 1. Recycling IS NOT a public waste service.**
  - 2. Recycling IS trading commodities for profit.**
  - 3. Recycling is a private commercial activity**
  - 4. Its basis is extracting waste materials, upgrading them, and trading to industry**
  - 5. Millions of informal entrepreneurs work in recycling because they can earn a living**
  - 6. These millions supply the global industrial recycling supply chain.**
  - 7. Without them the modern industrial economy would wither and die.**
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# Solid waste IS a *public* service.

1. Public responsibility for “solid waste management” increases with modernisation, urbanisation and industrialisation.
2. The public sector is responsible because of the health impacts of a dirty city.
3. Cities offer a cleaning *service* whose core activity is *removal* of waste, dirt, litter.
4. Services provide both direct and diffuse benefits, e.g. for collection/sweeping.
5. Services are based on -- and paid for in -- labour and service units, hours/ households.
6. Collection without disposal improves public health but may not benefit the environment.

# Private recycling activity benefits the solid waste system

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1. When materials are recycled by the private sector, they don't have to be "managed" by the city
2. Recycling these materials is a form of subsidy that the private and informal sector provides -- free of charge -- to the city authorities and citizens
3. Cities who criminalise private recycling are hurting themselves, their citizens, and their environment
4. Before modernisation, informal recyclers are responsible for diverting up to to 20% of all wastes in most Asian cities -- at no cost to the city
5. Helping cities understand the value of the informal recycling system is a key element of sustainable good practice & the basis for PPPPPs.

# Recycling has environmental and economic benefits

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1. Private recycling activity has significant positive environmental impacts, or “externalities”
2. Recycling benefits the environment by *diverting materials from disposal* to soil, water, or air.
3. These externalities add (unrecognised) value to the city, its citizens, and the environment.
4. Cities get the benefit of this, but do not pay.
5. Informal recyclers do the work under poor conditions and with inadequate equipment.
6. So the informal sector is subsidising and protecting the urban environment -- and paying ~~with their lives and their health and their future.~~●

# Municipal ambitions for recycling & composting grow during modernisation

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1. “Recycling” (including organics management) is seen as part of a modern solid waste system
  2. Authorities want to improve the system, deliver results, and improve the environment
  3. They need to earn from materials revenues to offset new, higher costs
  4. AND recycling looks like easy money for cities to offset their increasing disposal and collection costs
  5. The result is an almost complete re-conception of the role of recovery in waste management
  6. This brings local authorities into competition with private formal and informal recyclers.
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# Recycling is outside the competence of most local authorities:

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1. Municipalities don't know how to collect, process, store, or trade valuable materials
  2. They don't understand specifications
  3. They are not (usually) entrepreneurial
  4. They lack contacts or legitimacy within the private recycling supply chain
  5. Municipal engineers don't understand the logic, economy of scale, commercial, or design aspects of efficient recycling
  6. As a result, formal recycling systems are **over-capitalised and under-performing**
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# 3. Why Recycling PPPPPs?

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- 1. Private competence complements public
- 2. The informal sector knows everything about recycling in the city, but doesn't understand how to upscale and formalise
- 3. Professional, well-designed recycling requires planning, design, and investment in capital equipment, operations, and communication
- 4. PPP(PP)s between local authorities and the informal and formal private recycling supply chain is a win-win approach ●

# Useful facts about the global informal sector:

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1. Members of the informal sector in solid waste and recycling are private sector entrepreneurs in the global economy
  2. They work at the base of the global industrial supply chain
  3. Informal recyclers trade “valuable” materials for their own economic gain.
  4. Informal recycling offers better income than other available options.
  5. But it is neither recognised nor protected
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# “Economic aspects of the informal sector in solid waste” 2007\*, tells about:

1. six cities in varying states of modernisation, with populations ranging from 380.000 to 17 million
2. the movement of materials through formal and informal solid waste and recycling processes
3. efficiency and effectiveness of formal and informal recycling and organics recovery
4. relationships between formal and informal recycling and solid waste activities in six cities
5. the operational, social, economic, and environmental impacts of informal activities

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|----|---|
| 1. | Cluj-Napoca, Romania -- Green Partners;                         |
| 2. | Cairo, Egypt -- CID;  |
| 3. | Lima, Peru -- IPES;   |
| 4. | Lusaka, Zambia -- Riverine Associates                           |
| 5. | Pune, India -- KKPKP (Union of waste pickers)                   |
| 6. | Quezon City, the Philippines -- SWAPP (solid waste association) |

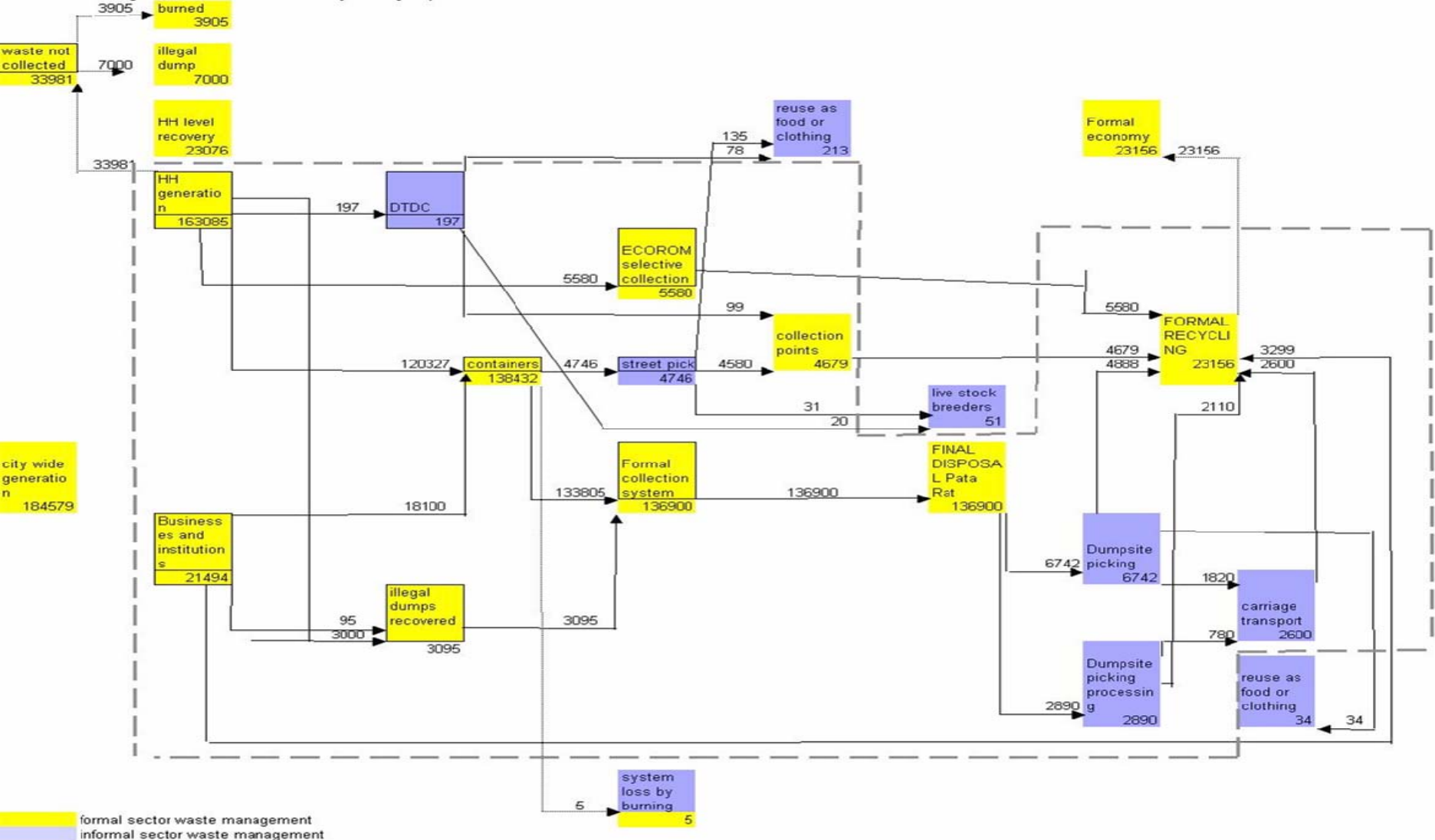
\* The Draft GTZ/CWG Study 2007, soon to be finalised.

# Six study cities, pop 32 million, have 75,000 informals recycling 3 million tonnes/yr

City	Population	People in the Informal Sector	Tonnes recycled/yr
Cairo, Egypt	17,620,580	40.000	2.162.500
Cluj, Romania	380,000	3.200	14.700
Lima, Peru	7,765,181	11.200	529.400
Lusaka, Zambia	1,238,227	390	5.400
Pune, India	3,000,000	9.500	117.900
Quezon City, Philippines	2,247,098	10.100	141.800
<b>Total 6 cities</b>	<b>32,251,086</b>	<b>74.390</b>	<b>2.971.700</b>

# Process Flow of Cluj, Romania

Process flow diagram and mass balance, city of Cluj-Napoca, Romania



# Dump pickers, Vietnam



# Which global informal occupations do we find in Asia ?

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1. **IWBs or IWCs**
  2. **Street and container pickers**
  3. **Truck and collection crew pickers**
  4. **Dump pickers**
  5. **Mobile traders**
  6. **Small junk shops**
  7. **Medium junk shops**
  8. **Swine/livestock feeding operations**
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# Itinerant waste buyer, Pakistan



# How do informals in relate to stakeholders in the formal sector?

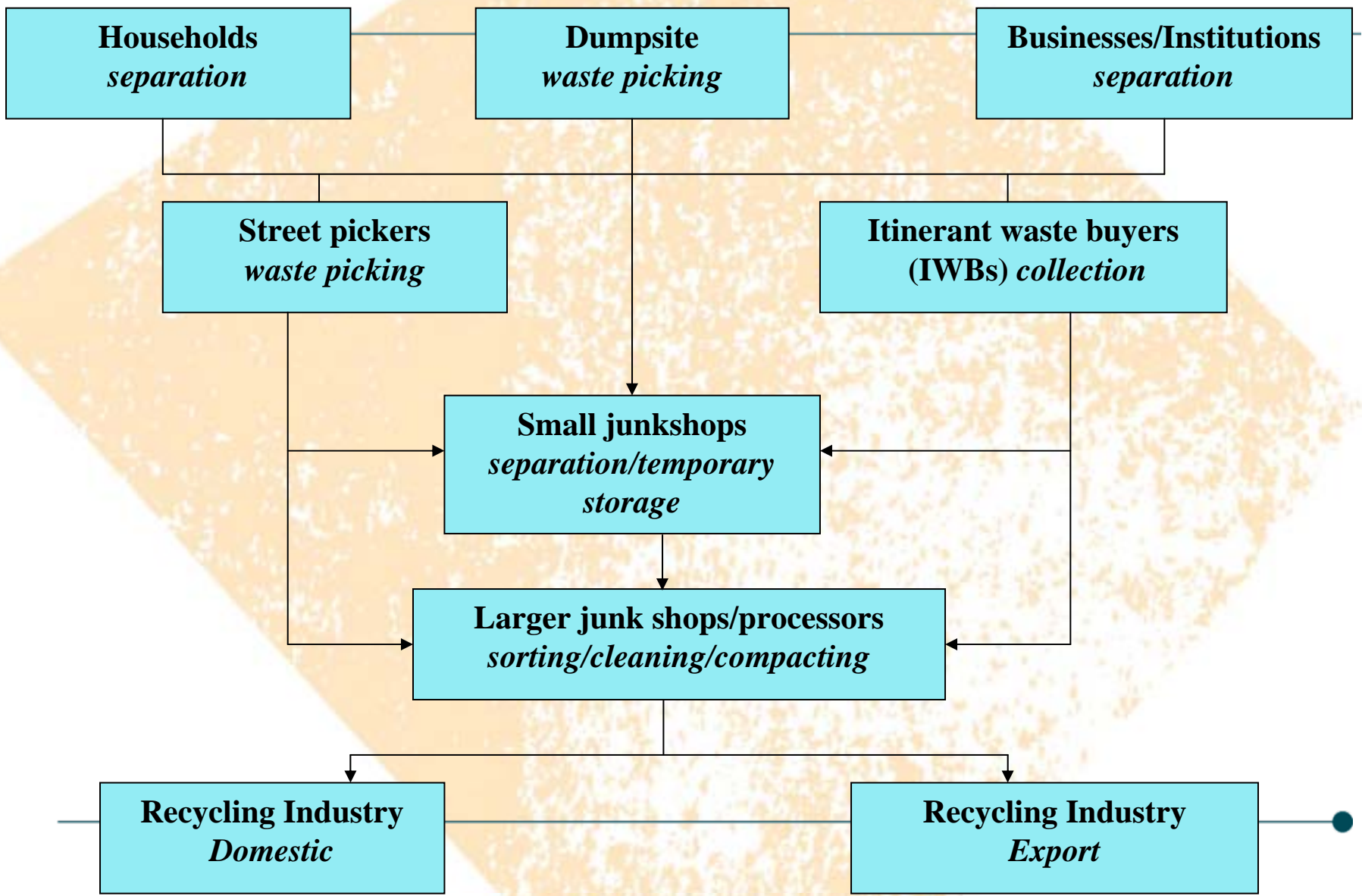
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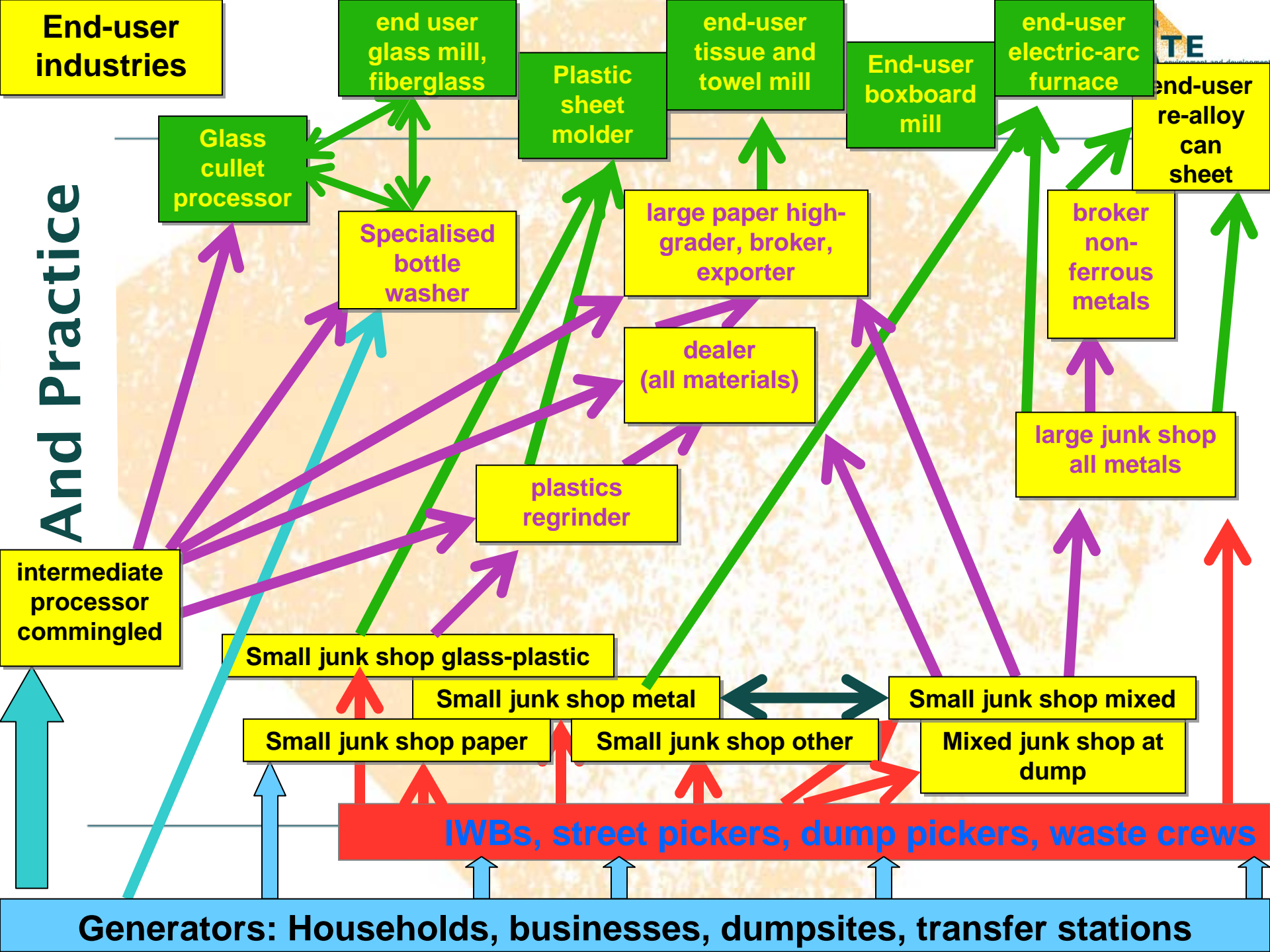
1. Formal dumpsite/landfill workers
  2. Formal collection workers
  3. Medium and large junk shops
  4. Intermediate processors
  5. Brokers and exporters
  6. MRFs and IPCs
  7. End-users and mills
  8. Composting facilities
  9. Other?
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# Non-ferrous junk shop, Eritrea



# Recycling Supply Chain -- in theory:





# Formal and informal recycling:

1. **Formal recycling -- sponsored by government or donors -- is difficult & expensive, and has high capital costs.**
2. **Formal recycling initiatives can get government, donor, and grant financing quite easily.**
3. **They use it to buy (too much) expensive equipment.**
4. **Formal recycling initiatives often recover very small amounts, and send more materials to disposal (Delhi).**
5. **Formal recycling (nearly) died during the economic crisis.**
6. **Informal recyclers recover much larger amounts.**
7. **Informal recycling is under-capitalised, so that people over-strain themselves, and hurt their bodies and health.**
8. **Informal recycling activities are (too) efficient and low-cost and use (too) little fossil energy.**
9. **Informal recycling increased during the economic crisis.**

# 4. Examples of good practice -1

<b>City / Country</b>	<b>Specific good practice PPP(PP)</b>
<b>Brazil</b>	<b>PPPs giving informal recyclers /junk shops concessions to collect or receive materials /to operate recycling centres (ASMARE and Quezon City MRFs)</b>
<b>Philippines</b>	
<b>Mali (W. Africa)</b>	<b>PPPs to operate recycling transfer and community disposal (COGEVAD, Mali)</b>
<b>Egypt</b>	<b>PPPs for post-collection sorting, tip areas (Colombia, Cairo)</b>
<b>Columbia</b>	
<b>Bangalore, India</b>	<b>Facilitate waste picker-business service relationships which include access to materials (Bangalore, India)</b>
<b>Tanzania</b>	<b>Municipality micro-franchises waste collection (Dar, Tz), sweeping (Bulgaria)</b>
<b>Bulgaria</b>	

# Waste picker-sweeper, India





# Examples of good practice -2

<b>City / Country</b>	<b>Specific good practice</b>
<b>New York USA, South Africa</b>	<b>Excavate, seive, and reconstruct the old landfill, shift to cell pattern, add recycling and composting areas</b>
<b>Bangladesh, India, Malawi, Kenya</b>	<b>PPPs to collect market waste, separate and wash plastics, compost organics</b>
<b>Brazil China</b>	<b>Organise privatisation tenders so that documents require working with the informal sector</b>
<b>Costa Rica, Honduras, India</b>	<b>Facilitate B-to-B PPPs with bank sector &amp; finance ministry &amp; LAs for loans guarantees /longer contracts to MSEs / CBOs</b>

# Municipality supports informal collectors of recyclables in Lima, Peru



# Examples of good practice -3

<b>City, Country</b>	<b>Specific good practice</b>
<b>USA, Canada, Netherlands</b>	<b>PPPs with cities and private compost producers to use compost for parks, road berms, cemeteries, public spaces</b>
<b>Sri Lanka, Belgium</b>	<b>PPPs with agriculture ministry and farmers to promote on-farm production and use of compost ()</b>
<b>Tanzania, Serbia</b>	<b>Market studies, market failure analysis as part of ISWM assessment, PPPs for gradual expansion / strengthening of existing informal systems</b>
<b>India, Brazil, Mali, Columbia, &amp; global-ly : WIEGO &amp; RWB</b>	<b>Organise informal recyclers through, unions, NGOs, co-operatives; platforms; associations</b>

# “A city agrees to pay medical bills of those who clean it up: Pune, India offers medical insurance to its informal ragpickers”



**A city agrees to pay medical bills of those who clean it up**  
 Pune corporation to offer medical insurance to ragpickers after an ILO study and a unique campaign

**SAIKAT DATTA**  
 PUNE | SEPTEMBER 28

is a first in the country, has agreed to extend medical in-

amount considering the contribution made by them in keeping the city clean.

“They lift nearly 200 tons of garbage everyday and are exposed to hazardous diseases. This will ensure that they get in-patient care in hospitals,” says Benjamin.

Benjamin’s landmark decision comes two years after an International Labour Organisation study and a

problems, muscular-skeletal problems, scabies and other skin diseases.

The ILO study was conducted by Poornima Chikermane, Lakshmi Narayan and Medha Deshpande, associated with the SNTD College’s department of adult education.

The study covered 252 scrap collectors and 72 scrap traders.

# Examples of good practice -4

<b>Country, City</b>	<b>Specific good practice</b>
Philippines, USA, Canada, Costa Rica	PPP recycling co-operatives with port authority, other public entities & EPR
Philippines; Colombia; USA	organise collective transport, storage, and/or marketing co-operatives
Indonesia, Canada & California USA, Bangladesh	Support recyclers to develop hybrid or new businesses combining services with valorising the materials. respectively: composting, deposit return, carbon financing
Costa Rica, Netherlands, Canada	Create EPR systems where the producers support costs of safe recycling or guarantee prices

# Examples of good practice -5

<b>Country, City</b>	<b>Specific good practice</b>
Costa Rica, Brazil, Cairo, Serbia, India	use or create intermediaries, facilitate capacity strengthening; create income support; create compatible schooling & support centres; pay health insurance
New York (NY Times); Brazil, Peru, Manila	large public events, press or awareness campaigns; Waste and Citizenship Festival; licensing/ franchising with ID cards and uniforms
Columbia, USA	Court challenges (Civisol, Columbia, 2009) about private sector rights to materials

# City of Diadema, Brazil contracts the informal sector to collect recyclables



**Brazilian President Lula shows his support to the informal sector and encourages decision makers to recognise their value and use their professional expertise (2005)** ●

# The Caesar-God principle

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- 1. Government as God: downwards and inwards, control, boundary conditions, final responsibility, access to materials and finance; accountability to all**
  - 2. Private (formal and informal) sector as Caesar: innovation, rapid response, flexibility, networks, upwards and outwards, intuitive, no profit no survival, accountability to survive**
  - 3. Civil Society in the middle: building trust, creating spaces for civil disagreement, serving as intermediary**
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# Beginner mind

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- 1. Lots of room for study, learning, meditation, reflection, even prayer**
  - 2. We are entering unknown territory: it pays to be humble**
  - 3. Listening always works best**
  - 4. Respect and engage with strengths of other stakeholders**
  - 5. Wait to be asked to “build” capacities or “fix” problems**
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# When in Rome...do as the Romans do

- 1. Begin with a detailed ISWM baseline analysis**
- 2. ALWAYS research markets thoroughly**
- 3. Build on synergies, don't ignore conflicts**
- 4. Civil disagreement is the highest form of democracy**

# Some resources

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**The Collaborative Working Group on Solid Waste Management in low- and middle-income countries:**

**[www.cwgnet.net](http://www.cwgnet.net) (and the informal sector network)**

**WASTE, Advisers on Urban Environment**

**[www.waste.nl](http://www.waste.nl) -- and coming soon, a new portal**

**Chintan-Environmental, Delhi, India**

**[www.chintan-india.org](http://www.chintan-india.org)**

**WIEGO: Women in Informal Employment -- Globalizing and Organizing;**

**[http://www.wiego.org/occupational\\_groups/waste\\_collectors/index.php](http://www.wiego.org/occupational_groups/waste_collectors/index.php)**

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# “Nothing about us without us”

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**Thank-you.**  
**Questions are welcome!**  
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