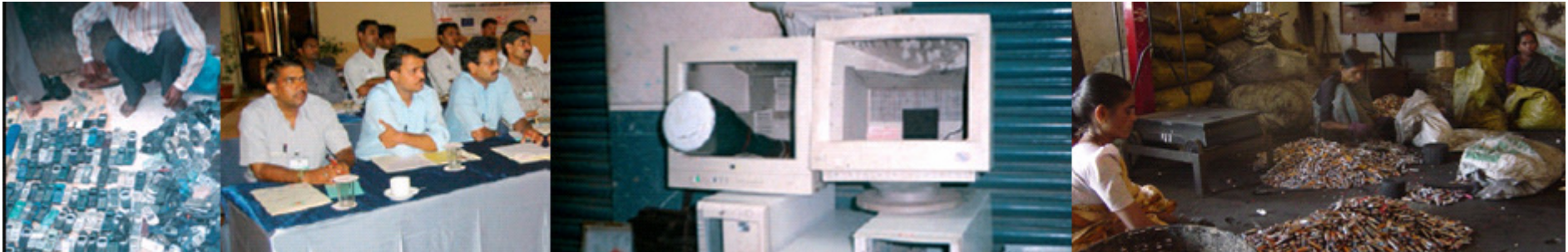
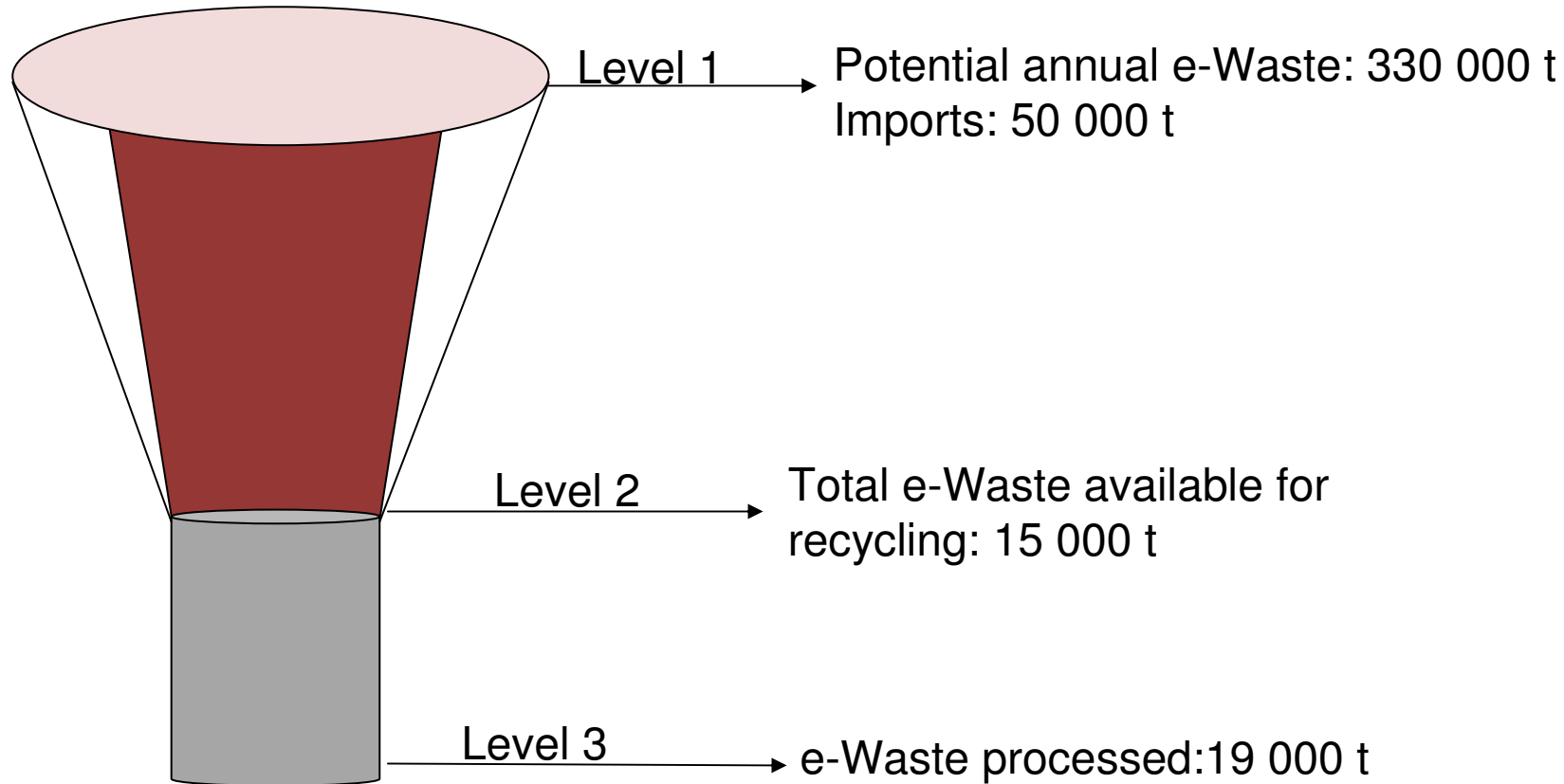




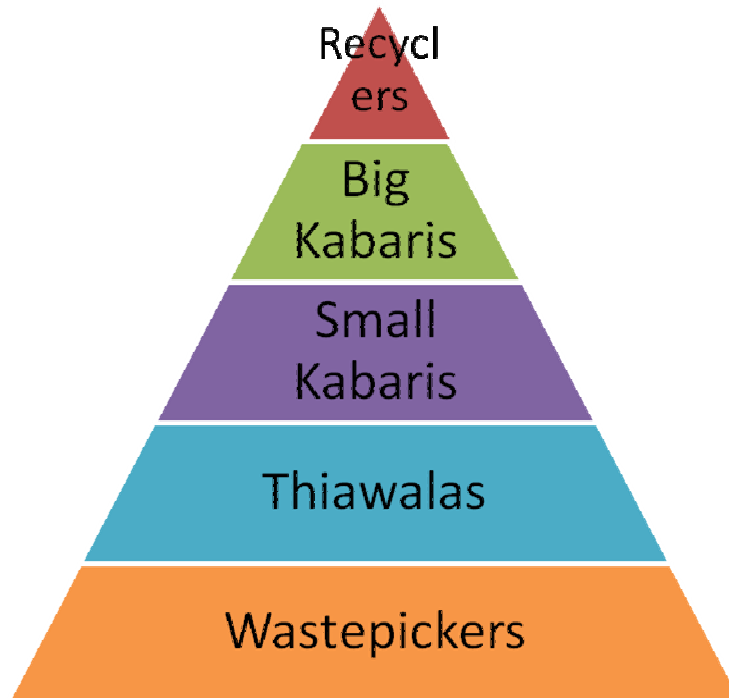
# The role of the informal sector in e-waste management in India







## Informal Sector in India



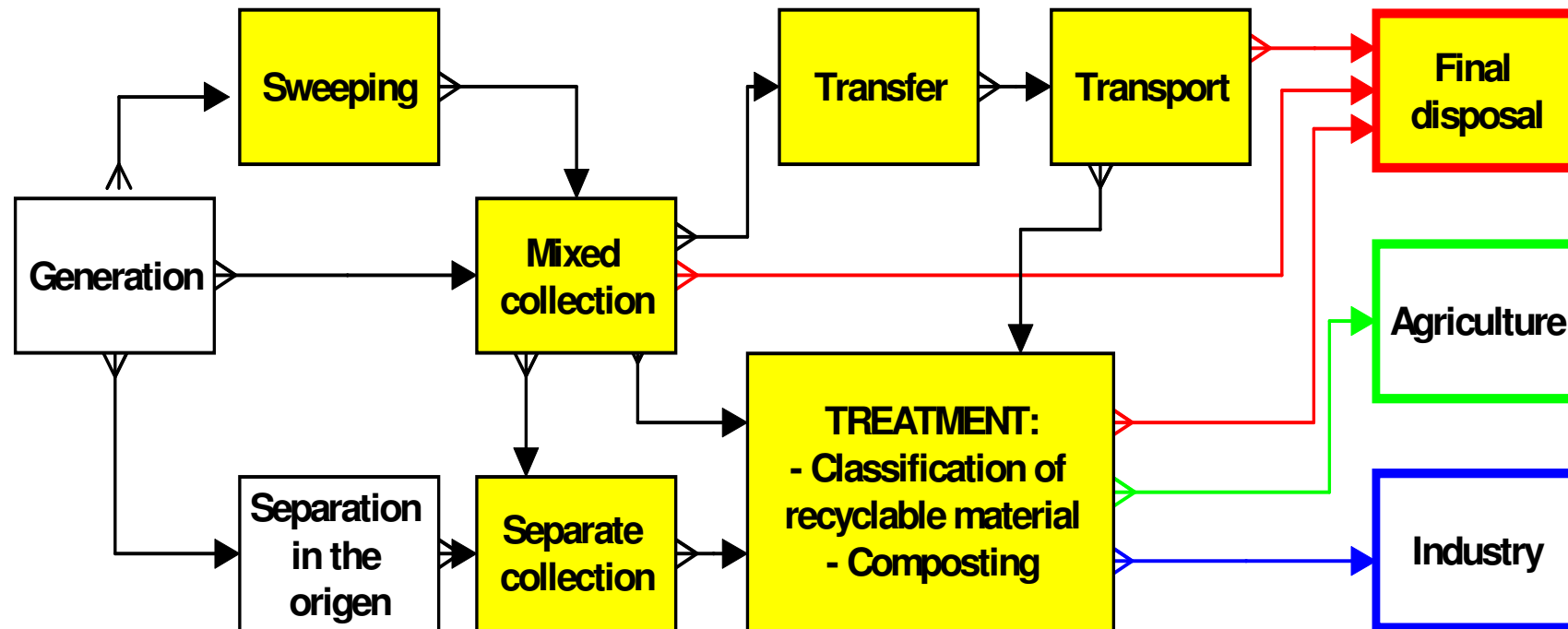
*Ref. Wasting our Local Resources-Chintan*

- Recycling in India is undertaken by a huge mass of workers involved in the informal sector
- This sector includes waste pickers, thiawalas (collectors), small kabaris (small middlemen), and big kabaris (larger middlemen)
- 95 % of the e-waste is segregated, dismantled, processed and recycled in the informal sector based in urban slums



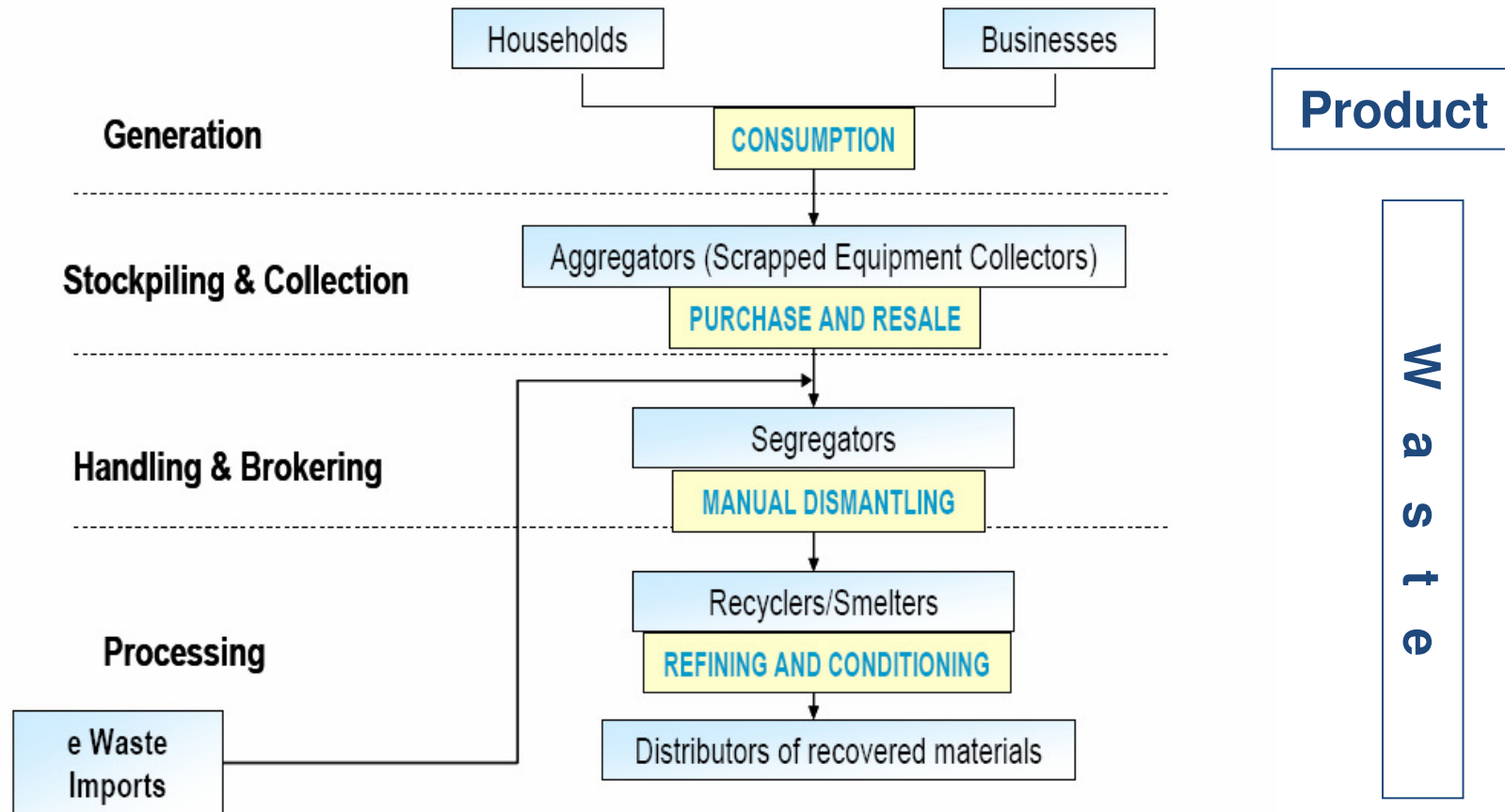


## Points of intervention of the informal sector in solid waste management





# E-waste Trade Value Chain in Delhi





# Health and environmental hazards





## Why integrating the informal sector?

- **Income effects among an often marginalized part of society**
- **Provision of secondary raw materials for the recycling industry**
- **Decreased environmental damage (e.g. less landfilling with recyclables)**





## Legislative Framework in India

- **National Environmental Policy** (2006) – first time mention informal sector recyclers and details their rights

- 
- **E-waste Management Guidelines** (2008) - explicitly mention inclusion of informal sector in e-waste dismantling

- **DPCC (Delhi Pollution Control Committee)**  
**EOI** mentions inclusion of informal sector in the e-waste management for Delhi



Source: DPCC





# Trainings and Capacity Building

## Profitable Environmental Management Trainings

- **GTZ, EMPA, SAAHAS and E-Parisaraa: Informal Sector (Bangalore)**
- **Toxics Link – GTZ: Informal Sector (Delhi)**
- **Development Alternatives – GTZ: Informal Sector (Delhi)**





## Road Map

- **Further recognition of the sector in e-waste management in policy frameworks**
- **Clearly identifying role of informal sector in collection, segregation, dismantling and refurbishment in e-waste management**
- **Strengthen informal sector systems of collection and dismantling by enhancing their skills**
- **Training in occupational health & safety incorporated in trainings with provision of solutions for minimizing hazards posed by recycling operations**
- **Provide alternative skills for diversifying occupational choices**





## Formalization – aspects that should be considered

- **Setting up a formalized organization of the IS, e.g. a cooperative, is a long process**
- **The formalization process should be accompanied by third parties**
- **Apply market-based initiatives that also consider fluctuating market prices**
- **The IS has to be taught about business management and entrepreneurship**





## Shukran !



Source: Wongpanit 2007

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