



Promoting recycling business to strengthening the 3R implementation in developing Asia

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Contribution of the recycling business to the society

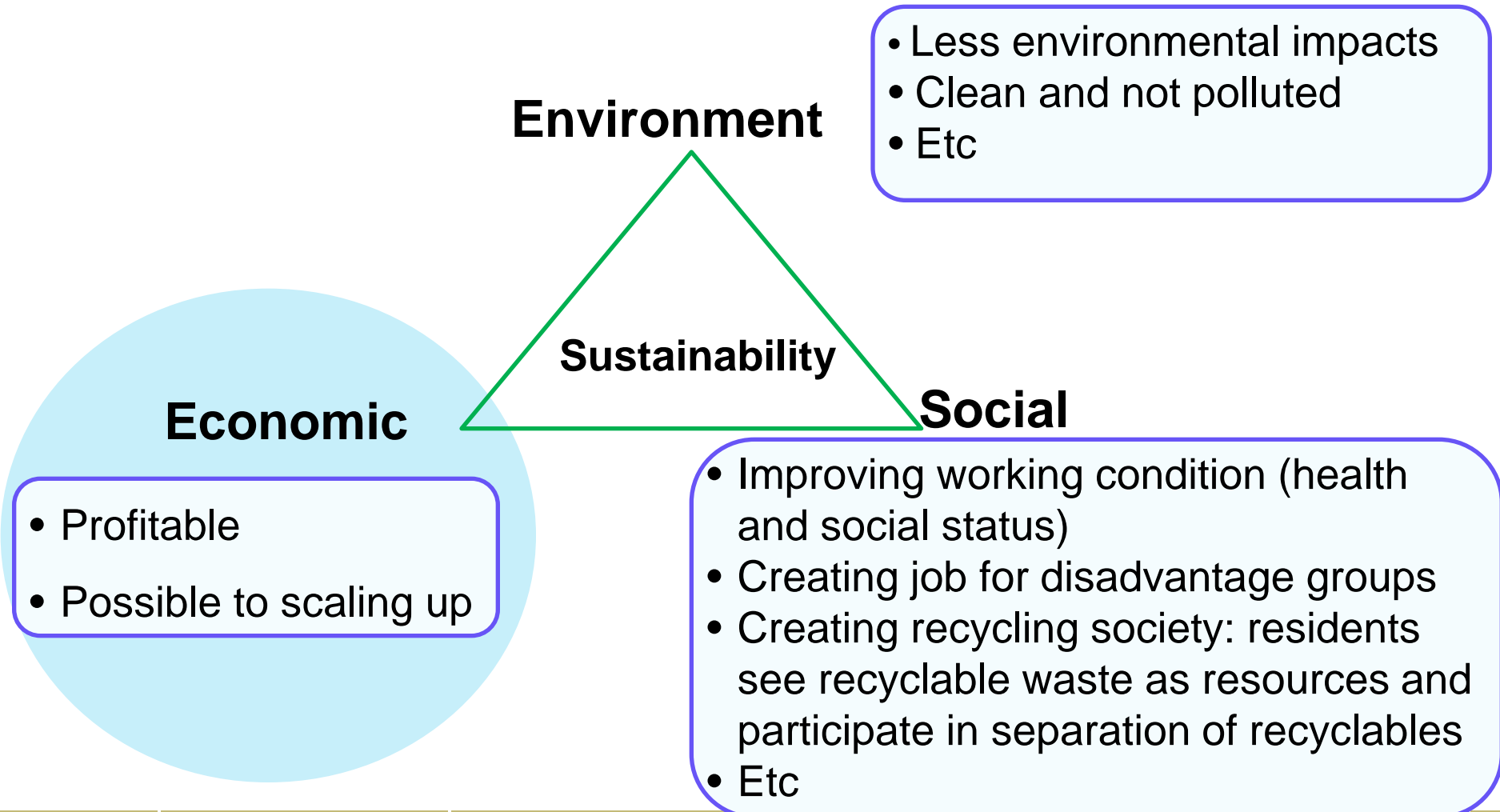
1) Solving constraints of local governments

- Separation of recyclables from the waste stream
- Reduce workload and budget of local governments on waste collection, transport and disposal
- Saving landfill space and extend lifetime of landfill

2) Circulating recyclable materials to the production side, especially metals

3) Reducing greenhouse gas emissions by avoiding natural resource extraction, virgin material production and waste disposal

A concept of sustainable recycling business for developing Asia



Investigation on recycling business (supply side) in developing Asia

- Surveys and interviews actors on the supply side of recycling business
 - China
 - India
 - Malaysia
 - Thailand
- Analyses driving forces and challenges of improved recycling business
- Provides policy recommendations

Current situation of recycling business in developing Asia

- **The major player is non-government organization: private sector, informal sector, NGOs**
- **Main driver is economic value of the recyclables**



- **Focused on economic with less attention on environment and social aspects**



- **Need to reduce impacts on environments and improve social situation of stakeholders engaged on recycling business**

Examples of improved recycling business models in studied countries

1) Government initiative

Formal recycling business scheme, Malaysia

- Will initially started with a voluntary basis → to mandatory
- Similar to Japanese scheduled waste collection system but much simpler
- Plan to collect recyclables once a week by designated recycling centre
- Collected mixed recyclables will be delivered to a dedicated facility (most probably a MRF) for further sorting
- Any operation of recycling facilities will require a license from the national government

2) Public-private partnership

1.1) Recycling industrial park, China

- Co-investment between private and government
- Provides good infrastructure for sustainable recycling business development and elimination of informal curb side recycling practices.
- Subsidies and incentives are available for private and informal sector actors

1.2) Waste picker cooperative, India

- Formalisation of waste pickers with supports from NGOs and municipality
- Local government offers contract to waste picker cooperative on waste collection services
 - Waste pickers can secure higher income under an improved working condition
- Additional supports to the cooperatives are available based on municipal policy and negotiation

3) Private sector initiative

Wongpanit model, Thailand

- Highlighted monetary value of recyclables – waste is gold
- Increased value of recyclables to detailed segregation of recyclables
- Announced real time buying price to public
- Purchased all recyclables and identified opportunities in new recyclable materials
- Cooperated with local governments in promoting recyclable waste separation at source for sale
- Provided capacity building services to various stakeholders
- Offered training and job opportunities to disadvantage groups
- Used a franchise system to extension and scaling up of business

Supporting factors to promote recycling business

- Economic value of recyclables – market price and profits
- Social movements regarding the environment and socio-economic development
 - NGOs, communities
- Government policies
 - Circular economy promotion law in China
 - 3R promotion policy in Thailand
 - Solid waste and public cleansing act of Malaysia
 - Solid waste management rules in India

Remaining challenges of recycling business on supply side

- 1) Vulnerability of recyclable market
- 2) Labour shortage
- 3) Lack of tax incentives
- 4) Lack of accessibility to financial sources
- 5) Lack of awareness of both residents and businesses
- 6) Weak coordination among stakeholders
- 7) Lack of databases and ease of accessibility to recyclers
- 8) Lack of regulations or enforcement to promote recyclable waste separation at source

Policy recommendations for national governments

- 1) A national scheme (policy or regulation) to promote and enforce the implementation of recyclable waste separation at source
- 2) Standard and M&E for safe operation and environmental control of waste buyers and recyclers
- 3) Special tax exemption or reduction for recycling businesses that meet criteria on environmental standards and/or providing social services
- 4) Reconsidering the tax calculation system to motivate businesses to keep concise records of recyclables

- 5) A financial scheme to facilitate improvement of recycling business, e.g. concessional loans, tax exemptions, subsidies for certified facilities, microfinance scheme for individual and SMEs
- 6) A mechanism to promote use of recycled products
- 7) A database of scrap dealers and recyclers, market analysis, and real time price notification system
- 8) Technical supports and capacity building to upgrade recycling practices and facilities
- 9) Grant for research and technology innovation

Policy recommendations for local governments

- 1) Awareness raising campaigns on waste separation and strategy to improve social status of stakeholders engaged in recycling business
- 2) Training for waste pickers, small scale waste buyers, etc.
- 3) Increase coordination between the government (both national and local), private sectors, NGOs and waste pickers → partnership, union
- 4) Local regulation (or policy) to enhance implementation of recyclable waste separation at source

Requests to international donors

- 1) Grant and technical support
 - Pilot projects for upgrading recycling business practices and strengthening networking
 - Proper control and formalisation of the sector
 - Capacity building
- 2) Grants for Innovation and new technology development
- 3) Loan to improve recycling business practices
 - Soft loan programmes
 - Microfinance loan program

Acknowledgement

- **Financial support**
 - Asian Development Bank
- **National consultants**
 - Tsinghua University, China
 - Environmental Management Centre LLP, India
 - Soluwaste Management Consultants, Malaysia
 - Asian Coastal Resources Institute-Foundation, Thailand
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