



# **Building Capacity for Integrated Regional Development Planning (IDRP) and Promotion of 3Rs**

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# Rio+20 Outcome – *The Future We Want*

## Sustainable cities and human settlements

(para. 134-137)



*Among others, the States ....*

- recognize that, if they are well planned and developed, including through **integrated planning and management approaches**, cities can promote economically, socially and environmentally sustainable societies.
- commit to promote sustainable development policies that support a **safe and healthy living environment for all, safe and clean drinking water and sanitation**; healthy air quality; generation of decent jobs; and improved urban planning and slum upgrading.
- support sustainable management of waste through the application of the **3Rs**.
- emphasize the importance of increasing the number of metropolitan regions, cities and towns that are implementing **policies for sustainable urban planning and design** in order to respond effectively to the **expected growth of urban populations in the coming decades**.



# UNCRD

- **Established in 1971**
  - **ECOSOC res 1582(L) / MOU between UN and GOJ**
- **Mandates:**
  - **Training and research on Regional Development (RD) and planning and related fields**
  - **Advisory services for RD and planning and related fields**
  - **Assistance to developing countries by exchanging information and practical experiences**
  - **Cooperation with other organization involved in RD and planning and related fields.**



# Integrated Regional Development Planning (IRDP)

- A process of planning that can transcend sectors as well as administrative boundaries
- A holistic and integrated approach to sustainable development
- Designed to specifically address the needs at the local level and problems that affect people at the local level
- Seeks to address community empowerment and capacity development.



## IRDP and Sustainable Development

- A useful tool for Sustainable Development
- Attempts to integrate three pillars of sustainable development: economic growth; social development and environmental protection
- Employs participatory planning
- Promotes dialogue among competent administrations in the same territory to articulate coherent solutions



## Concept of Region and Scale

- A region is defined according to the issues being addressed.
  - There are different scales in both governance and issues
  - There are interactions between and among these different scales, eg. transborder issues
- ⇒ **Let the “problem” decide region and scale**



# Rio+20 Outcome – *The Future We Want*

In the area of resource efficiency and waste:

*The States call for:*

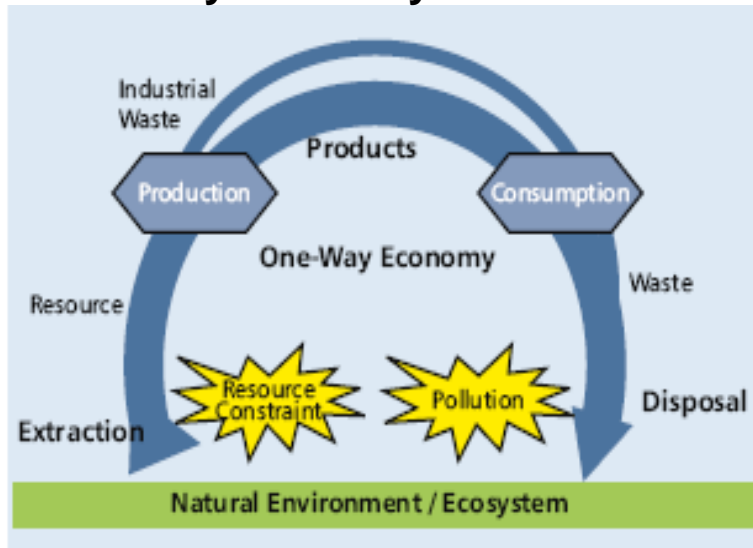
- **Increasing resource efficiency and reduction of waste** to achieve green economy in the context of sustainable development and poverty eradication to enhance the ability to manage natural resources sustainably and with lower negative environmental impacts
- **development and implementation of policies for resource efficiency** and environmentally sound waste management, including commitment to further **3Rs** as well as to increase energy recovery from waste with a view to managing the majority of global waste in an environmentally sound manner
- development and enforcement of comprehensive ***national and local waste management policies, strategies, laws and regulations.***
- continued, new and innovative ***public-private partnerships*** among industry, governments, academia and other non-governmental stakeholders aiming to enhance ***capacity and technology*** for environmentally sound chemicals and waste management, including for ***waste prevention***





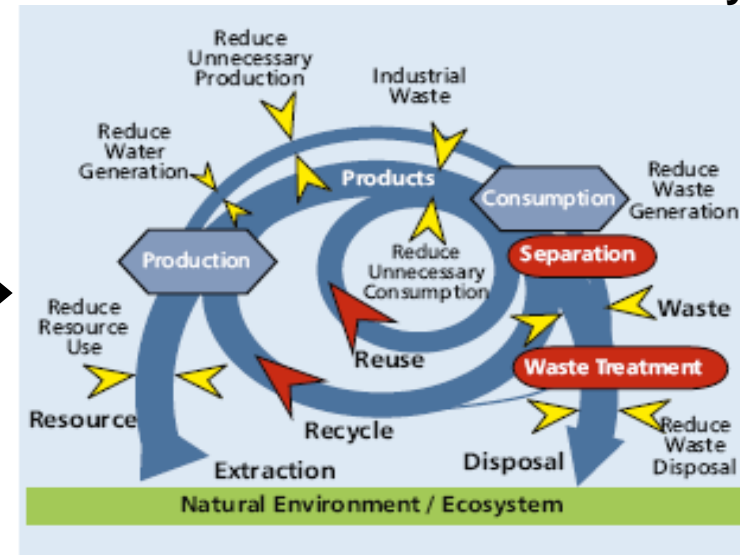
# Which path the cities should follow?

## 1. One-way Economy?



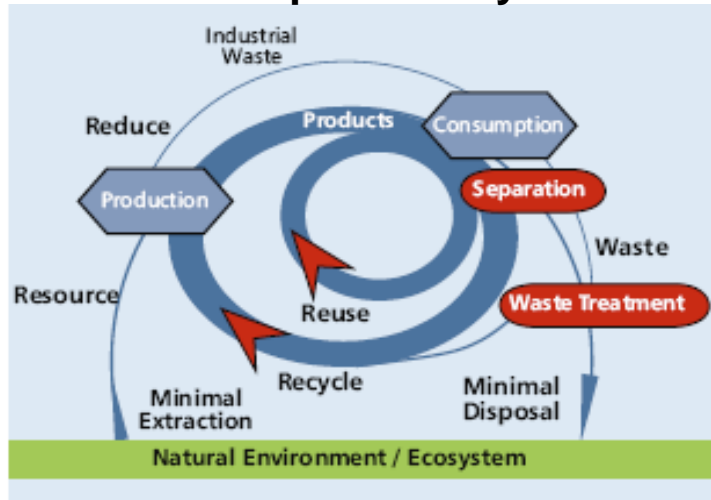
Source: ADB.

## 2. More resource efficient economy?



Source: ADB.

## 3. Closed Loop Economy?



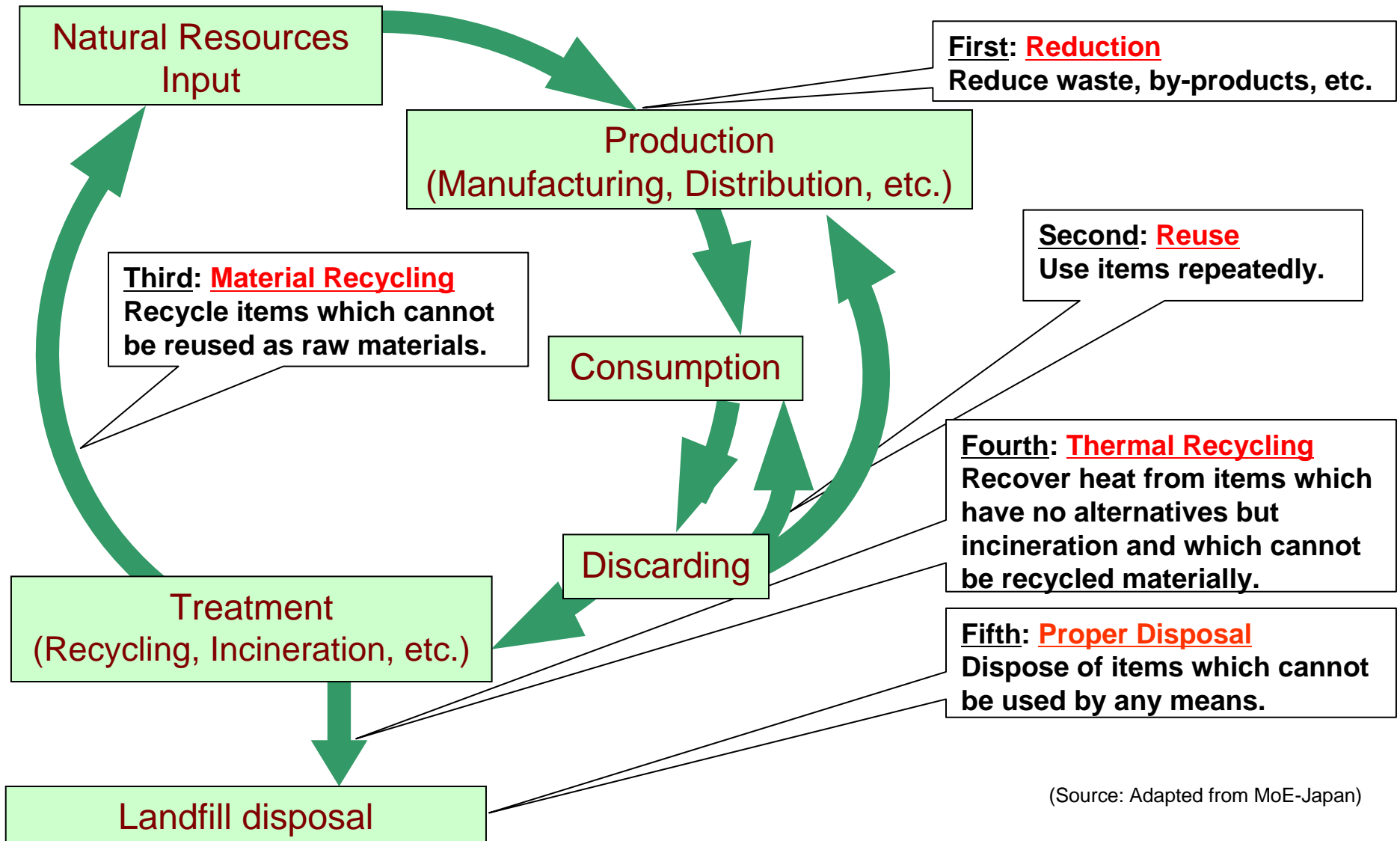
Source: ADB.

Resource efficiency => minimize per unit product or services

- Raw material input ↓
- Water input ↓
- Energy input ↓
- Emission, pollution, waste generation ↓



3Rs offer an environmentally friendly alternatives for moving towards resource efficient and zero waste society and to deal with impact of growing wastes on human health, economy and natural ecosystem....



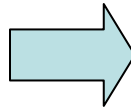
## Policies Integrating Resource Efficiency and 3Rs

- **PR China:** Circular Economic Law (2009); Long Term Renewable Energy Development Plan (2007); Chinese Circular Economic Law offers a long term plan for transformation that seeks to integrate economic, environmental, and social strategies to achieve high resource efficiency as the way of sustaining improvement in quality of life within natural and economic constraints;
- **Republic of Korea:** National Strategy and Five Year Plan for Low Carbon and Green growth (2008); Framework Act and Presidential Decree on Low Carbon, Green Growth; Green New Deal policy – 2% of GDP investments in Green Growth (2009); Resource Recirculation Policy;
- **Japan:** Fundamental Law for Establishing a Sound Material Cycle Society (2001); New Growth Strategy (2010) which places green innovations as top of seven strategic areas; Finance initiatives to build a Low Carbon Society (providing grants, investments, financing, interest subsidies for – (i) promotion of Green Buildings, (ii) development of Low Carbon Cities, (iii) bilateral offset Credit Mechanism, and (iv) enhancement, commercialization, and R&D of Low Carbon Technologies;
- **India:** National Solar Mission; National Mission on Enhanced Energy Efficiency;
- **Malaysia:** National Green Technology Policy (2009); Green Building Index (2009); National Renewable Energy Policy and Action Plan (2010);
- **Singapore:** Green Mark Incentive Scheme for buildings (2005); Water Efficiency Fund (2008);
- **Thailand:** Alternative Energy Development Plan and Target (2008); Thailand Climate Change Master Plan (2012–2050), etc.

# 3R offers many climate benefits

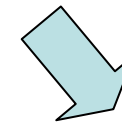
## Problems with conventional waste management (Landfills and incineration)

- Waste disposal is expensive and requires substantial inputs of labor, materials, energy, and land.
- Establishing new landfills and incineration facilities is difficult because of high land costs and “NIMBY” attitudes.
- Even the “modern” landfills with advanced systems could potentially face problems in a long term, as these technologies are not infallible.



## Benefits of integrated waste management: 3Rs and resource recovery

- Countries and cities should pay equal attention to upstream options to reduce waste for final disposal and to reuse and recycle valuable resources.
- Upstream options are almost always more costs effective than disposal.
- Segregation and composting does not create substantial GHG if done properly.



## Possibility of GHG reductions



### Avoidance of GHG emission

- Composting
- Bio-methanation and power generation
- RDF

### Capture of GHG emitted

- Landfill Gas (LFG) capture

### Waste management options

- Source reduction
- Recycling of energy intensive material

## The 3Rs: Reduce, Re-use, and Recycle

**Reduce:** waste reduction by using materials until the very end of their life cycle, and avoiding waste generation (e.g. avoiding receiving plastic bags for shopping)

**Re-use:** re-utilization goods and materials (e.g. choosing products that can be refilled rather than buying both the container and product every time).

**Recycle:** for re-utilization of waste as resources (e.g. Use products that are made out of recycled resources for input in other production processes).

*The climate co-benefits from sustainable waste management practices can lead to reduction of landfilling, raw materials extraction, and manufacturing through resource efficiency measures, resource and energy recovery (instead of raw materials and fossil fuels for energy), and composting to support sustainable farming in rural areas.*

Source: ADB and IGES 2008; UNEP 2010.

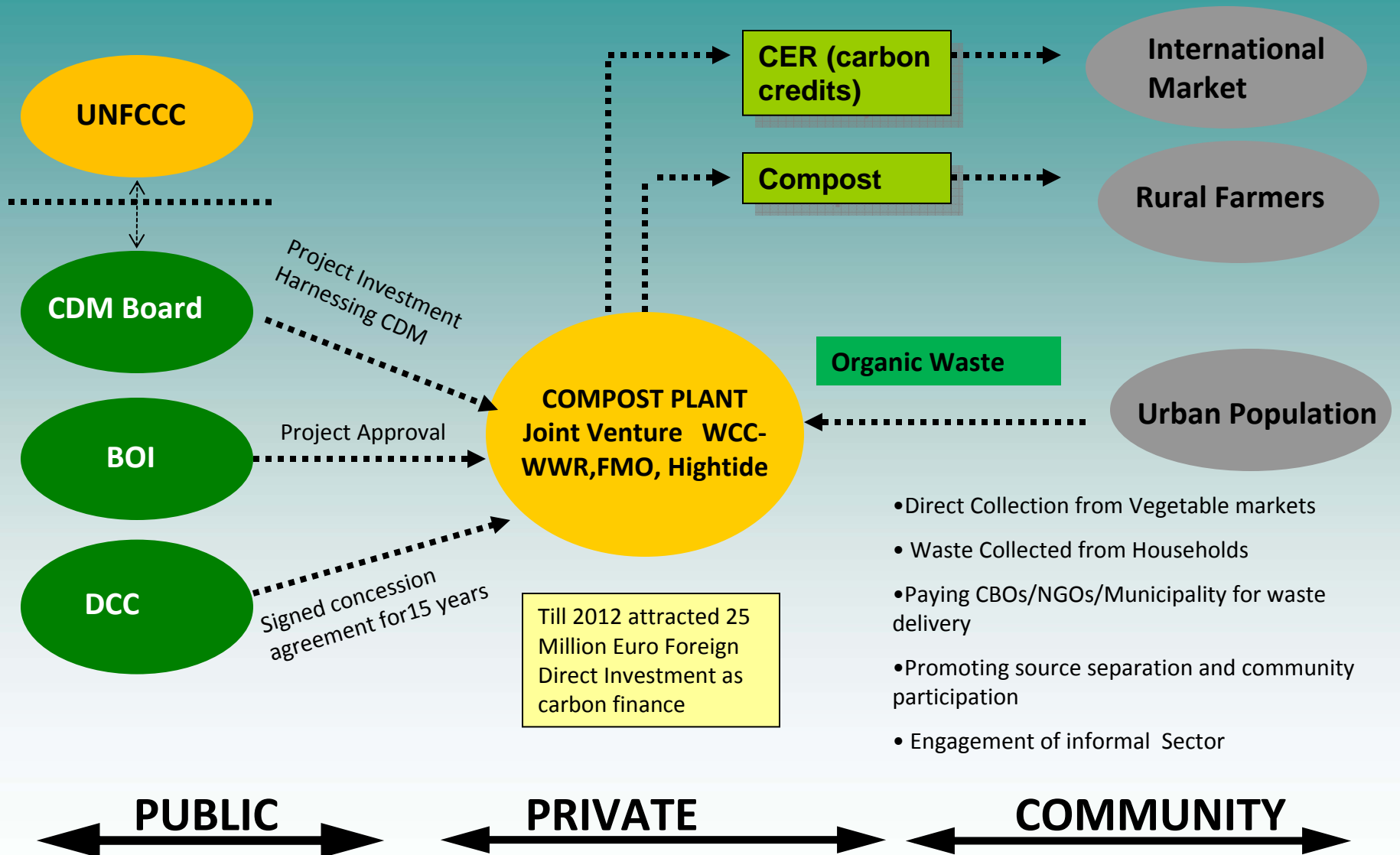
# Community Based Composting to Convert Organic Waste to Resource and Generate Carbon Credits, Dhaka, Bangladesh

## Common MSW Practices in Dhaka

- Due to rapid economic development, population growth and increasingly urbanized lifestyles, city authorities of Bangladesh are confronted with the issue of managing rising quantities and diverse streams of MSW with limited urban infrastructure and capability
- Capital city of Dhaka generates 3500 metric tonnes of MSW every day
- City's waste is transported to a sanitary landfill at the Matuail site in Dhaka
- Uncontrolled landfilling a common practice in the city
- City lacks adequate facilities for treatment, recycling and disposal of hazardous waste



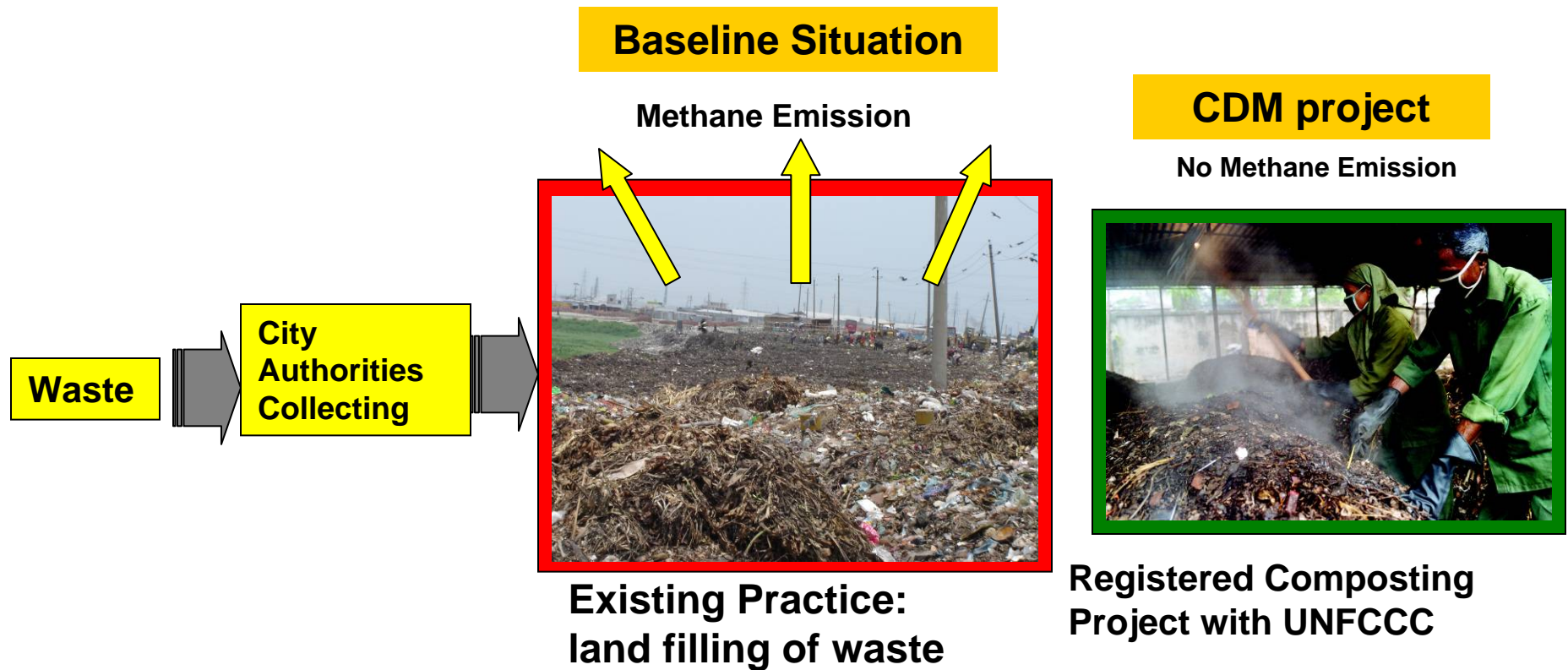
# CDM based project of Waste Concern



Source: Presented by Waste Concern at 2012 IPLA Global Forum, 5-6 Sep 2012, Seoul, Rep. of Korea

BOI-Board of Investment; DCC-Dhaka City Corporation

# Community based composting – a win-win solution for climate change, land use efficiency, and sustainable agriculture



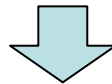
The project is recycling organic vegetable waste and instead of disposing in landfill, it is converted into compost.



# Partnership is key to expand waste management services of local authorities that lack resources, institutional capacity, and technological know-how...



- **Partnerships** offer alternatives in which governments and private companies assume co-responsibility and co-ownership for the delivery of solid waste management services. Waste disposal is expensive – financially and in lost resources (substantial inputs of labour, material, energy, land resources for land filling, etc.)
- **Partnerships** combine the advantages of the private sector (dynamism, access to financial resources and latest technologies, managerial efficiency, and entrepreneurial spirit, etc.) with social concerns and responsibility of the public sector (public health and better life, environmental awareness, local knowledge and job creation, etc.).
- **Partnerships** (PPP) are indispensable for creating and financing adaptation measures towards resilient cities which in turn are more attractive for private investments.
- **Partnerships** provide win-win solutions both for the public utilities and private sector—if duly supported by appropriate policy frameworks. Such partnerships could lead to savings in municipal budgets where waste management usually consumes a large portion. The private sector, on the other hand, may use this opportunity to convert waste into environmentally friendly products and energy that could also serve as income generating opportunities.



*Shifting the roles of municipalities from being a 'service provider' to 'facilitator of service', by focusing its activity on planning and management, while a private company takes up the actual day-to-day operation.*





# International Partnership for Expanding Waste Management Services of Local Authorities (IPLA)



REGIONAL ENVIRONMENTAL CENTER



# Objectives



- Enable LAs **share experience** on institutional, business and financial models in addressing waste issues and opportunities.
- Help mainstreaming **integrated and sustainable waste management strategies** such as **ISWM** and **3R**.
- Create "**green jobs**" and stimulate "**green investments**."
- Encourage **awareness raising** and **capacity building programs** targeting LAs and other stakeholders.
- Provide **guidelines to support local action plans and strategies** for sustainable waste management.
- Complement city/municipality level efforts for **improved urban management** towards realizing sustainable and liveable cities.



*Thank you*



United Nations Centre for Regional Development (UNCRD)