



Journey Towards Realization of Clean Dhaka

Presented By:

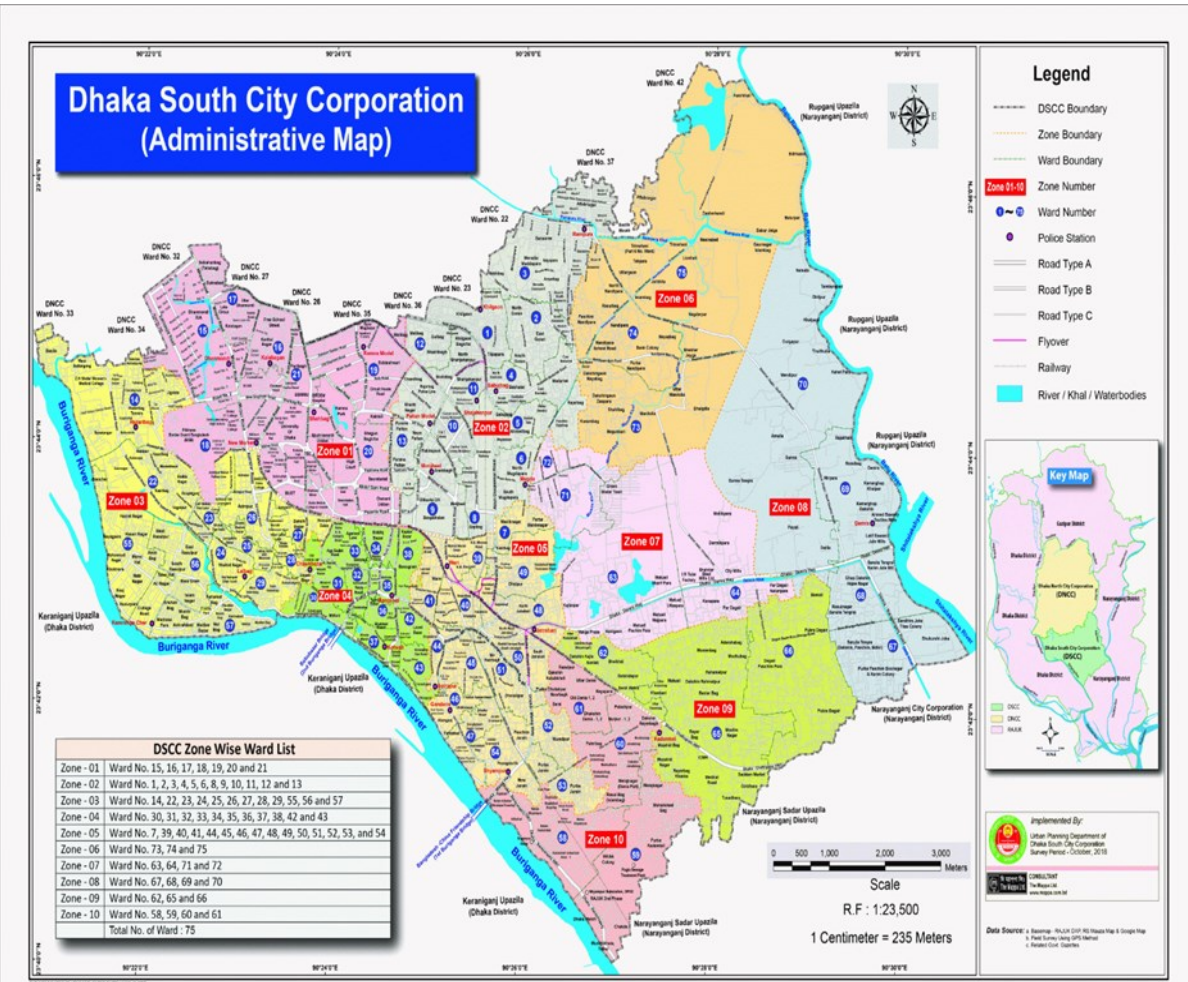
Dr. Md. Sufiullah Siddik Bhuiyan

Executive Engineer

Waste Management Department, DSCC



DSCC at a Glance from Waste Management Point of View



- Total Area: 109.251 sq. km
- Total population : 6.5 million
- Total administrative zone : 10 nos
- Total ward : 75 nos
- Waste collection point : 132 nos
- Waste handling vehicle & equipment : 328 nos
- Operational Secondary Transfer Station (STS) : 37 nos
- Waste generation per day : 3,200 ton
- Waste generation per capita : 0.56 kg/p/d (approx)
- Moisture Content : 65%-80%
- Waste caloric value : 650-1000 kcal/kg (seasonal)
- Medical waste generation : 13 t/d



Key Initiatives

- Formulation of **Clean Dhaka Master Plan (2005-2015)** and **New Clean Dhaka Master Plan (2018-2032)**
- Establishment of **Waste Management Department (WMD)**
- Community engagement through **Ward Based Approach (WBA)**
- Improvement of **collection system**
- Turning the open dumping to **Sanitary Landfill**
- Preparation of action plan for **'3R'** strategies through pilot project

1. Master Plan with the Support of JICA

Preparation of “Clean Dhaka Master Plan” from 2003 to 2006

- Target Year : 2005 – 2015 (for 10 years)
- Concept of MP : Establishment of proper collection and disposal system

Support for Clean Dhaka Master Plan Realization

2007 - 2013

The 1st Technical Cooperation Project

- ① Establishment of WMD, ② Improvement of waste collection, ③ Improvement of disposal site, ④ Public awareness & public involvement

2009 - 2010

The 1st Waste Collection Vehicle Grant Aid Project

- Provision of 100 collection vehicles

2006 - 2016

Japan Overseas Cooperation Volunteers

- Environmental education

2005 - 2010

Debt Cancellation Fund

- Construction of two landfill sites

2006

Grassroots Grant Aid Project

- Medical incinerator

Support for Improving the Level of Waste Management from 2017 to now

2017 - 2021

The 2nd Technical Cooperation Project

- Target Year : 2018 – 2032 (for 15 years)
Concept of MP : Sustainable SWM & Introduction of 3R

2015 - 2018

The 2nd Waste Collection Vehicle Grant Aid Project

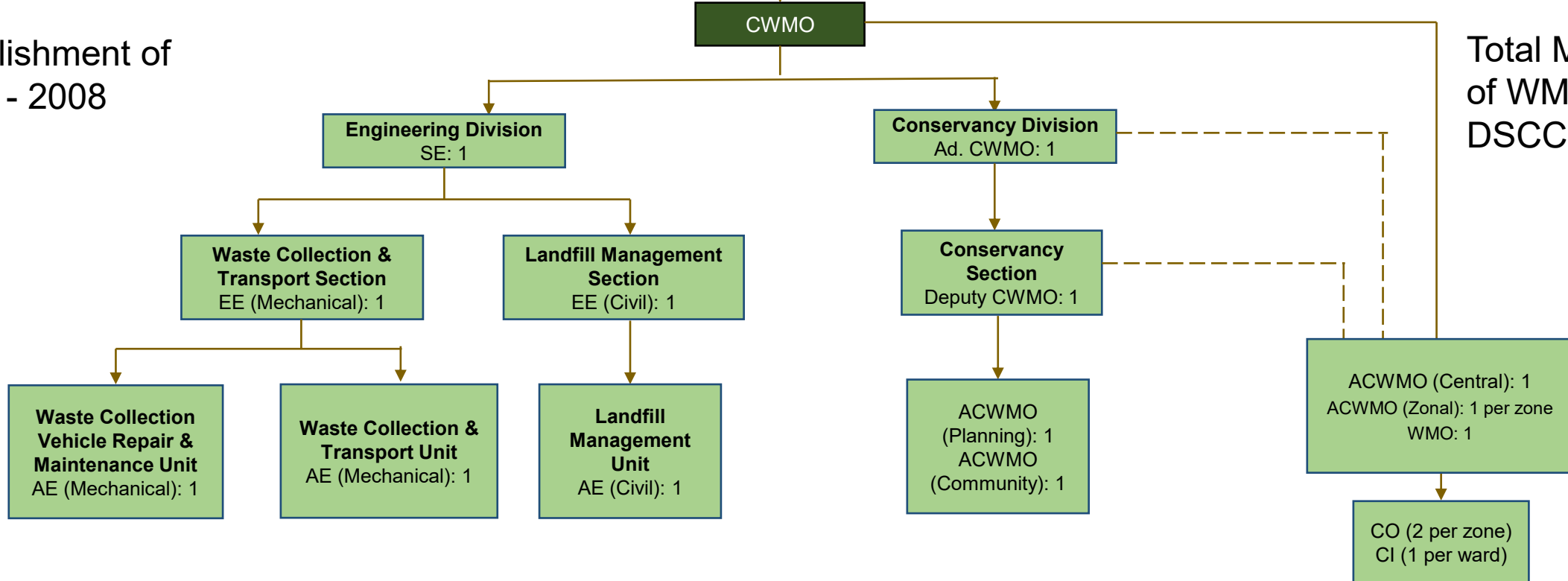
- Provision of 150 collection vehicles



2) Organogram of Waste Management Department



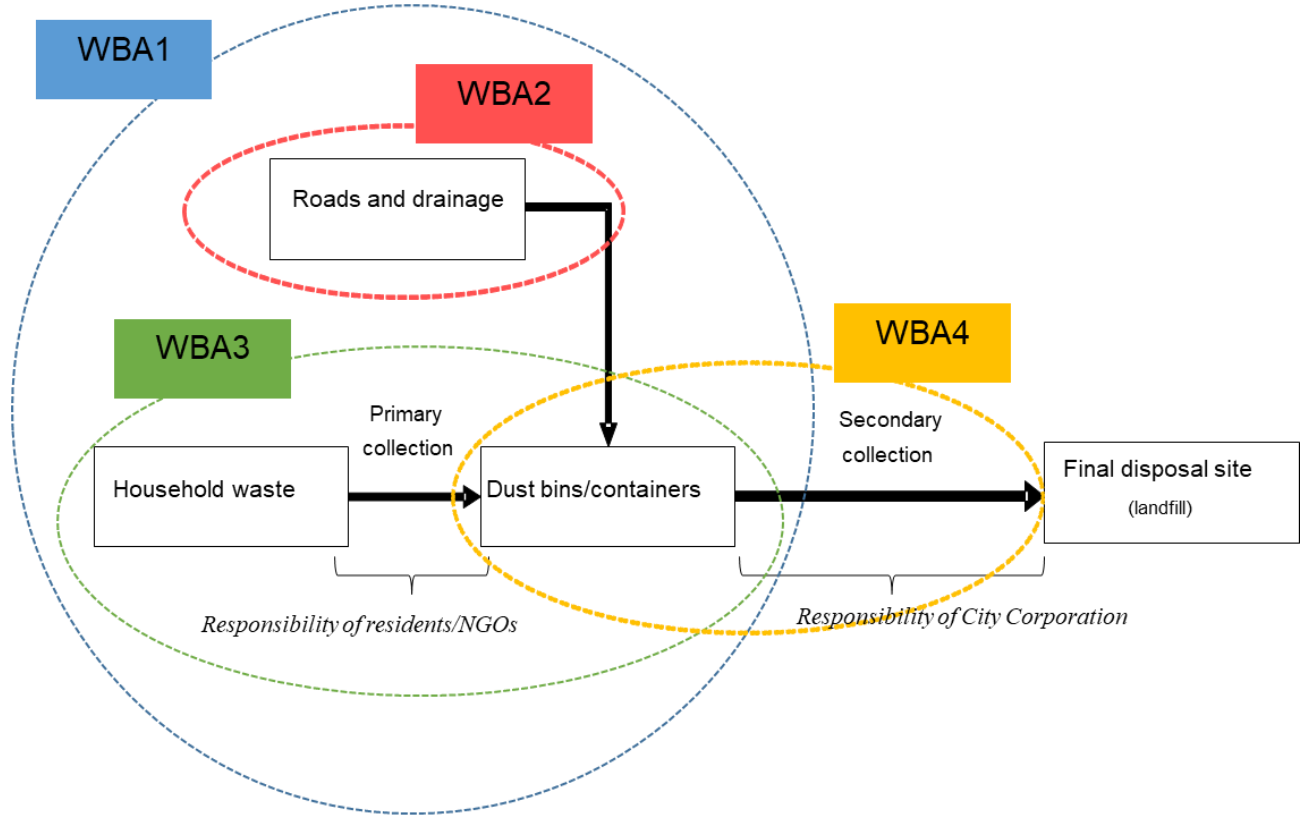
Establishment of
WMD - 2008



Total Manpower
of WMD for
DSCC - 5,500



3) Ward-Based Approach (WBA)



WBA 1



WBA 2



WBA 3

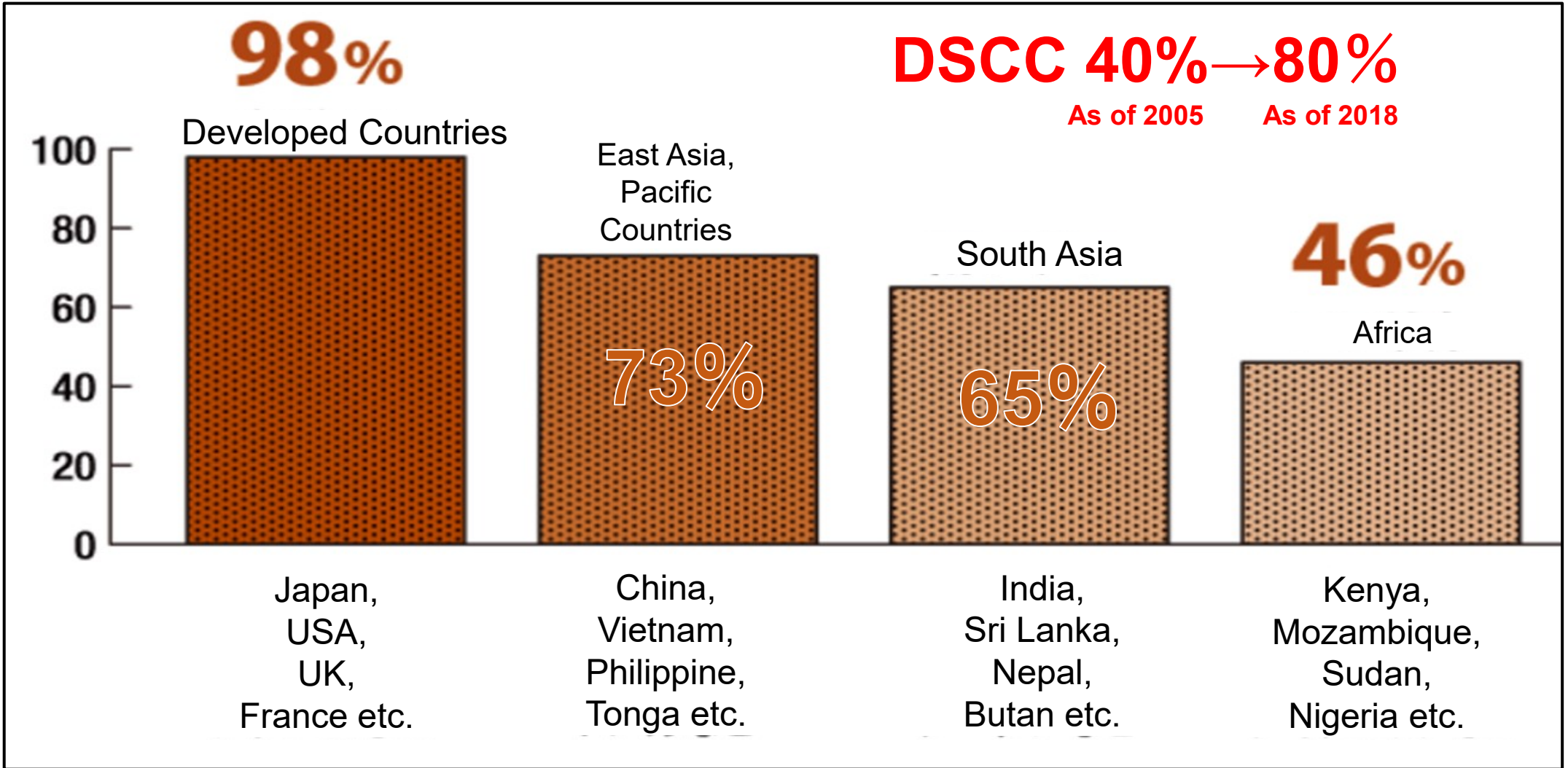


WBA 4



4) Improvement of Waste Collection

Waste collection rate by region



Source : What a Waste 2012 (World Bank)



5) Improvement of Existing landfill Site

Before

Open Dumping Site



Unsanitary disposal
(No soil cover)



Leachate leakage to the road

After

Sanitary Landfill Site



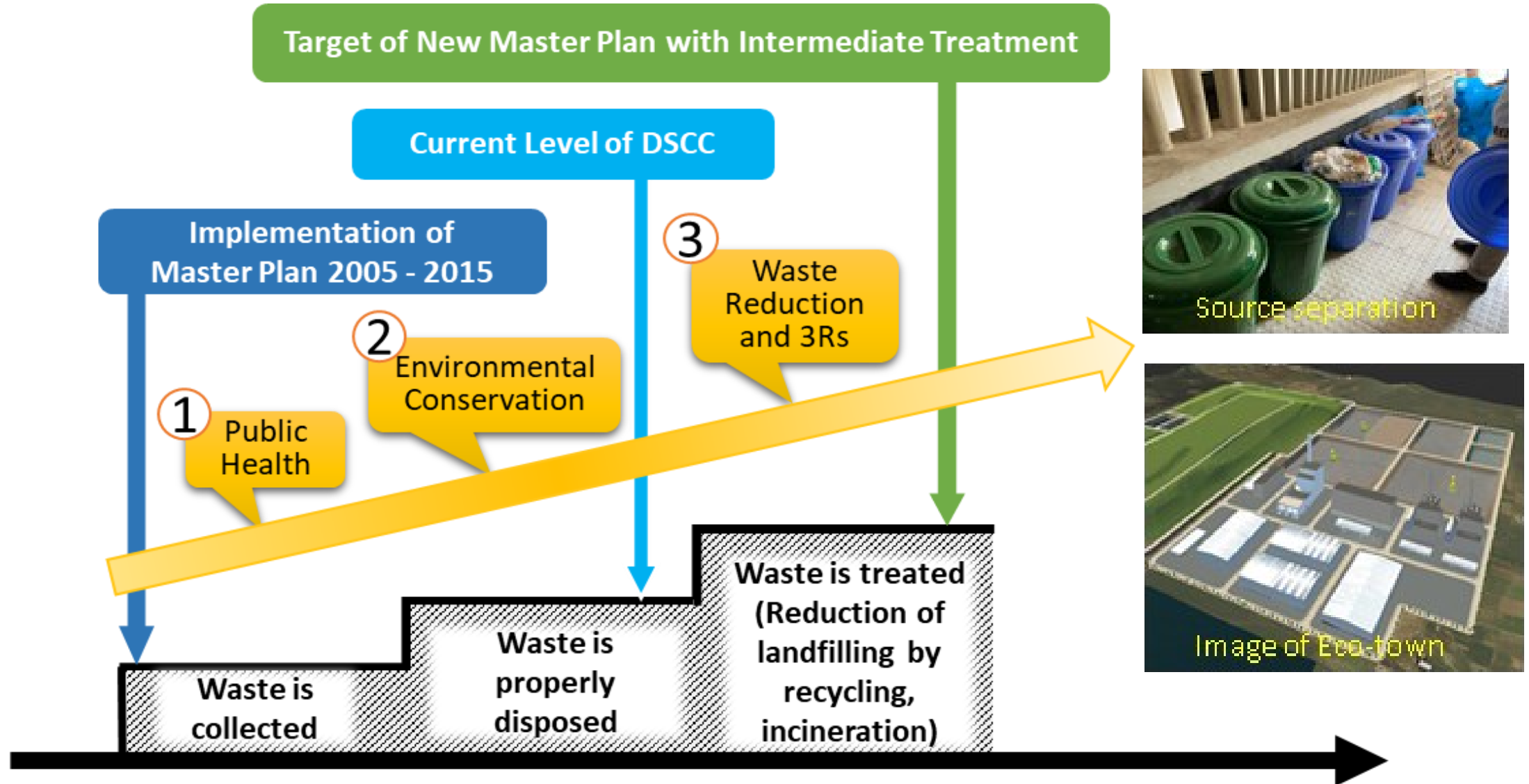
Sanitary landfilling (with soil cover, gas ventilation)



Proper leachate collection and treatment



6) Stages of Solid Waste Management





Efforts

- Community engagement through WBA
- Digital Monitoring / Supervision of Cleaners' Activities

- **Wireless Communication**
- **WhatsApp Group Monitoring**
- **Facebook live monitoring**
- **DSCC Website for receiving complain www.dsccl.gov.bd**
- **City surveillance 24/7 Facebook group**





Efforts

- Community engagement through WBA
- Digital Monitoring / Supervision of Cleaners' Activities
- Enhanced public awareness campaign



Community based approach under moto

“My Environment, I am also responsible” at Dhanmondi



Miking, Leaflet distribution & Rally



Community's Meeting



Efforts

- Community engagement through WBA
- Digital Monitoring / Supervision of Cleaners' Activities
- Enhanced public awareness campaign



Regular monthly coordination meeting with Conservancy Officials



Speech for cleaners



Recognition of Best CI



Periodical instructional meeting with cleaners; cleaners' welfare, accommodation & group insurance



New Waste Collection Vehicle



Efforts

- Community engagement through WBA
- Digital Monitoring / Supervision of Cleaners' Activities
- Enhanced public awareness campaign
- Provision of ward based single Primary Collection Service Provider (PCSP) and STS
- Maintaining weigh scale for digital waste data collection
- Land acquisition and land uses planning s done for expansion of existing landfill
- Piloting of 3R activities
- Outsourcing of Medical Waste Management
- Canal cleaning activities are on going



Challenges

- **Lack of available land** for secondary collection point and landfill site
- **Insufficient budget** allocation from both DSCC & govt for development and O&M of WM activities
- **Newly added 18 wards** is a new challenge due to insufficient vehicle, equipment, infrastructure and manpower
- Difficulties in awareness build-up regarding the importance of **safety tools** and ensuring proper use of those



Challenges

- **Lack of proper studies and expertizes, investors in wmgmt sectors** to introduce intermediate treatment facilities (i.e: Incineration plant, RDF, SRF, Bio-gas, Fertilizer, Eco-town, 3R etc.)
- **Sensitization and participation** of city dwellers in SWM is challenging
- Importance of **Municipal Waste Management** is not addressed in urban planning master plan
- **Encroachment of rivers, canals and box-culverts** - cleaning and restoration are most difficult



Thank You