OUTLINE

- BACKGROUND
- DESCRIPTION OF BMA
- STRATEGIC ISSUES OF BMA
- SOLID WASTE MANAGEMENT POLICY IN BANDUNG CITY

BACKGROUND

consequences

Based on Gov't Regulation No.26/2008 Bandung Metropolitan Area (BMA) is :

- National Activity Center (Pusat Kegiatan Nasional)
- National Strategic Area (Kawasan Strategis Nasional)

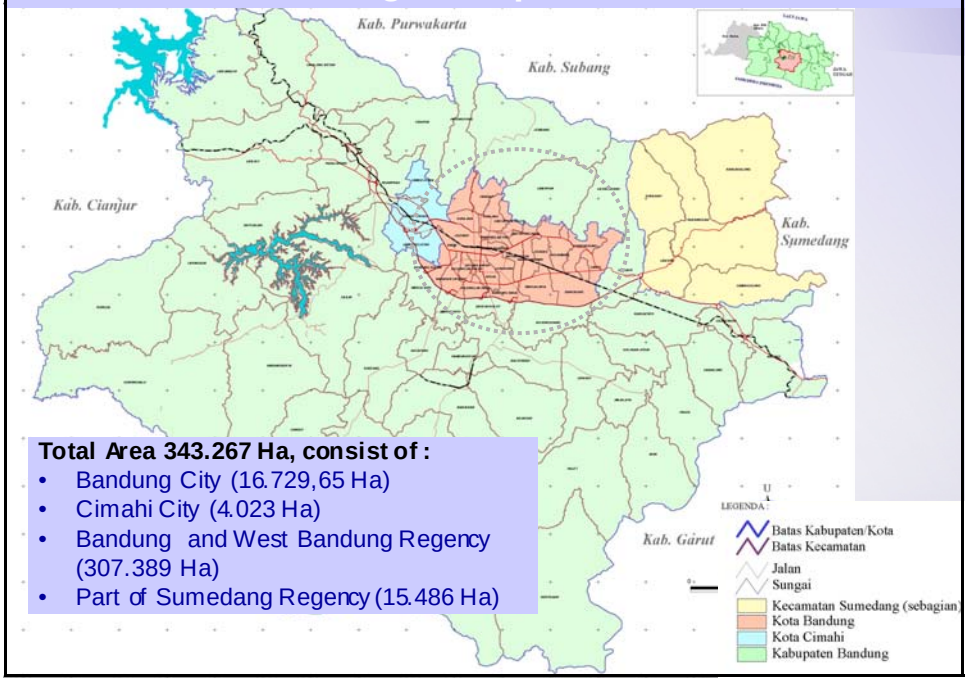
- BMA has a significant role as :
- national center of activities
- Regional and national scale economic growth pole

- Provision of regional infrastructure
- Spatial Planning

THE PROFILE OF

BANDUNG METROPOLITAN AREA

Bandung Metropolitan Area

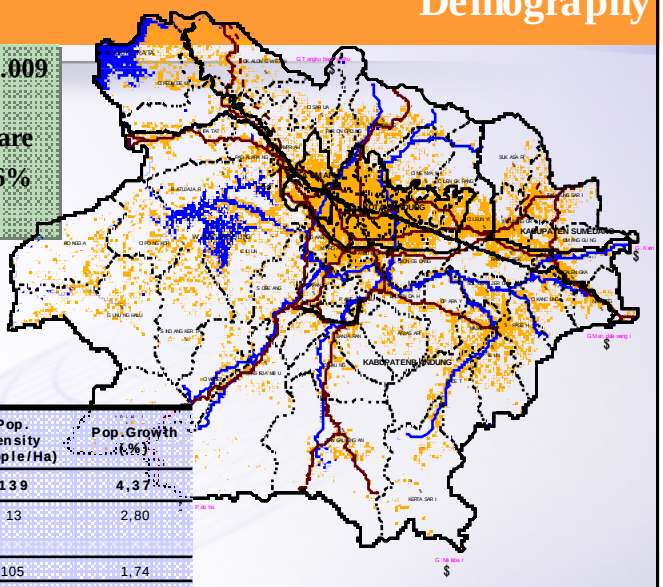


Total Area 343.267 Ha, consist of :

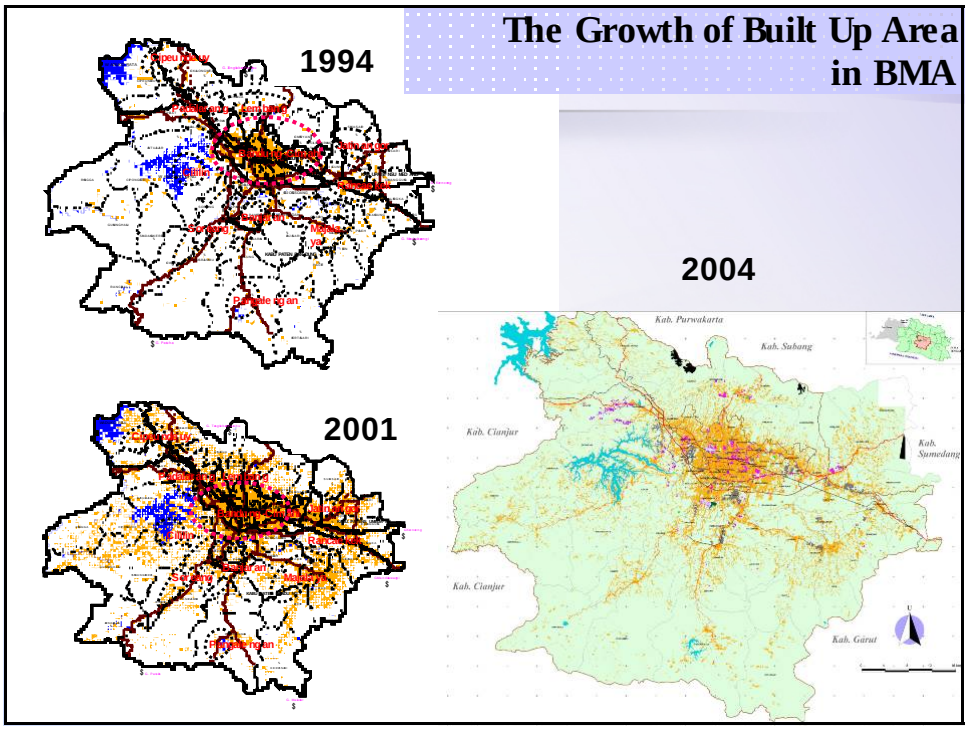
- Bandung City (16.729,65 Ha)
- Cimahi City (4.023 Ha)
- Bandung and West Bandung Regency (307.389 Ha)
- Part of Sumedang Regency (15.486 Ha)

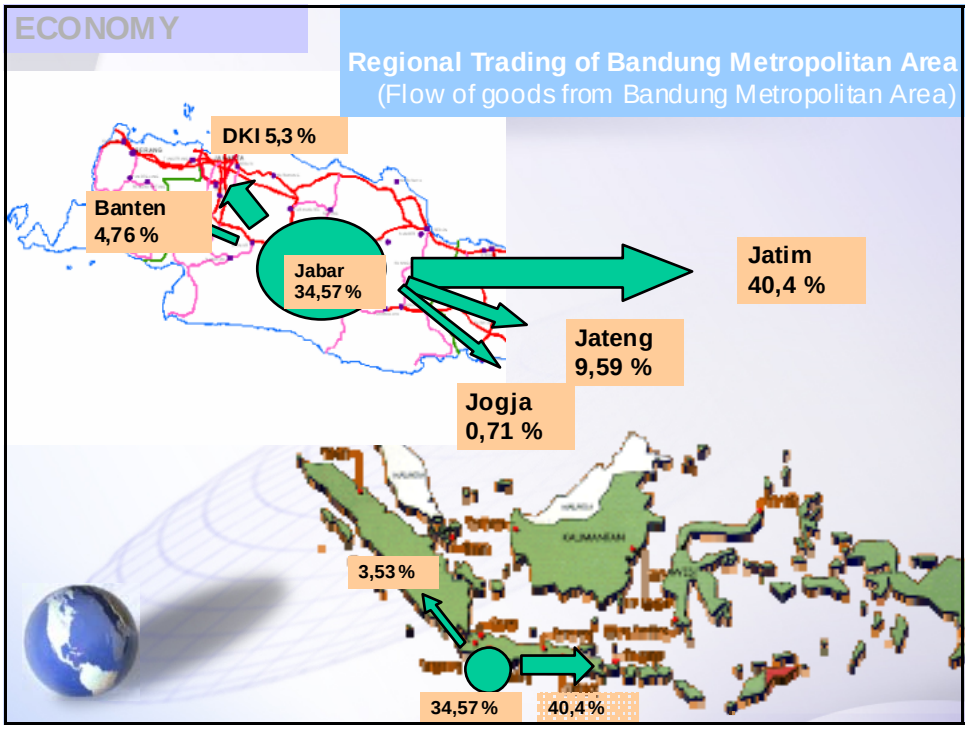
Demography

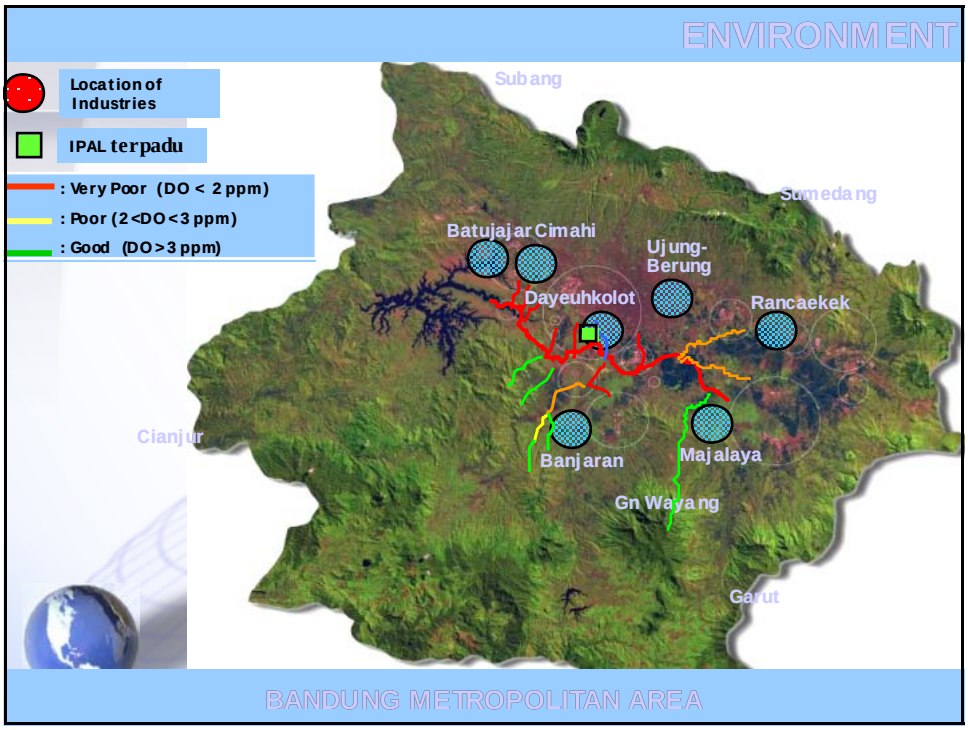
- Total Population **6.893.009** people
- Density 20 **people/hectare**
- Population Growth **2,86%**

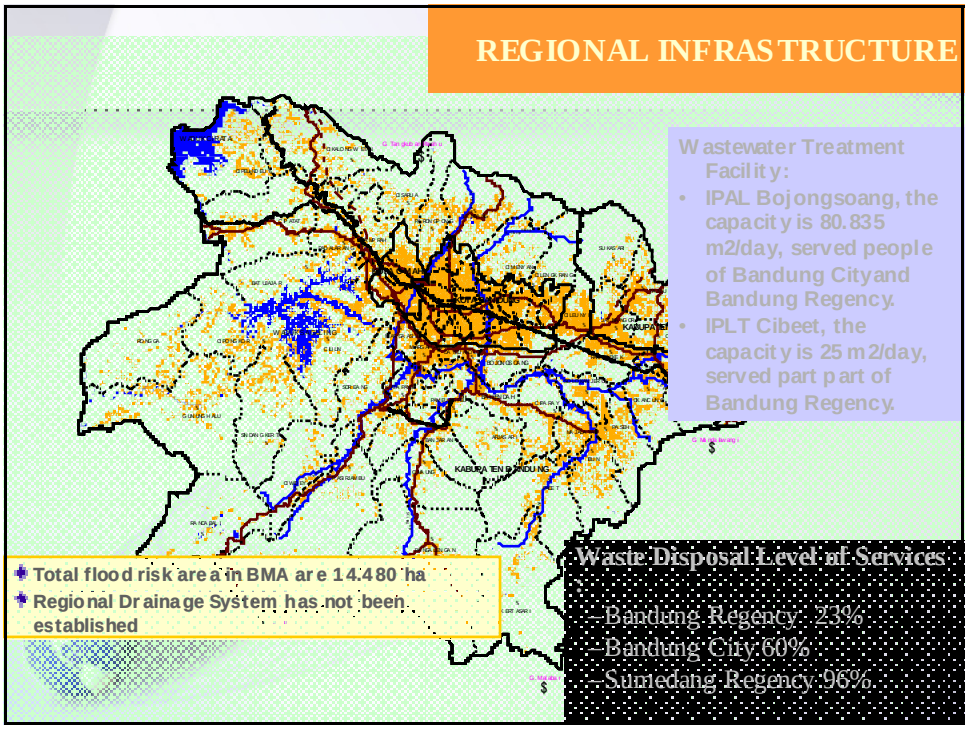


Bandung Metropolitan Area	Population (people)	Pop. Density (people/Ha)	Pop.Growth (%)
Bandung City	**2.333.124**	**139**	**4,37**
Bandung & West Bandung Regency	3.927.575	13	2,80
Cimahi City	424.932	105	1,74
Tanjungsari	58.472	16	2,25
Cimanggung	64.060	16	3,00
Jatinangor	84.846	32	3,00
Total	**6.893.009**	**20**	**2,86**


The Growth of Built Up Area in BMA
1994
2001
2004
Kab. Purwakarta
Kab. Subang
Kab. Cianjur
Kab. Sumedang
Kab. Cianjur
Kab. Garut


ECONOMY
Regional Trading of Bandung Metropolitan Area
(Flow of goods from Bandung Metropolitan Area)
DKI 5,3 %
Banten
4,76 %
Jabar
34,57 %
Jatim
40,4 %
Jateng
9,59 %
Jogja
0,71 %
3,53 %
34,57 %
40,4 %


ENVIRONMENT
Location of Industries
IPAL terpadu
: Very Poor (DO < 2 ppm)
: Poor (2<DO<3 ppm)
: Good (DO>3 ppm)
Subang
Sumedang
Batujajar Cimahi
Ujung-Berung
Dayeuhkolot
Rancaekek
Cianjur
Banjaran
Majalaya
Gn Wayang
Garut
BANDUNG METROPOLITAN AREA


REGIONAL INFRASTRUCTURE
Wastewater Treatment Facility:
• IPAL Bojongsoang, the capacity is 80.835 m2/day, served people of Bandung Cityand Bandung Regency.
• IPLT Cibeet, the capacity is 25 m2/day, served part part of Bandung Regency.
Total flood risk area in BMA are 14.480 ha
Regional Drainage System has not been established
Waste Disposal Level of Services
– Bandung Regency 23%
– Bandung City 60%
– Sumedang Regency 96%

STRATEGIC ISSUES OF
BANDUNG METROPOLITAN AREA

REGIONAL ISSUES OF BMA

- GROWTH OF URBAN POPULATION

•FAST GROWING NEEDS OF URBAN INFRASTRUCTURE
•DEGRADATION OF ENVIRONMENT QUALITY
•LAND CONVERSION INTO BUILT UP AREA

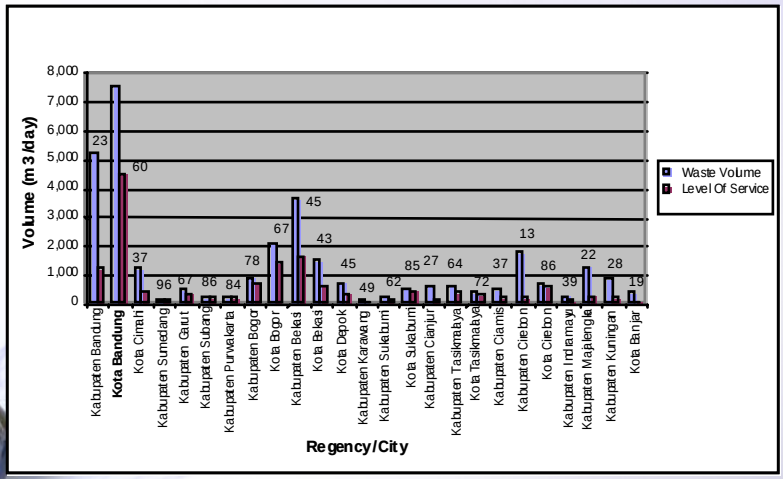
•LIMITED CARRYING CAPACITY

ENVIRONMENTAL PROGRAM IN
BANDUNG METROPOLITAN AREA

Bandung City

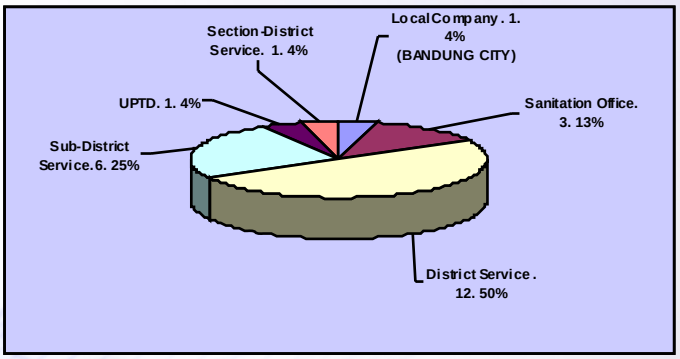
Current Condition

Waste Volume & Level of Services in West Java



Current Condition

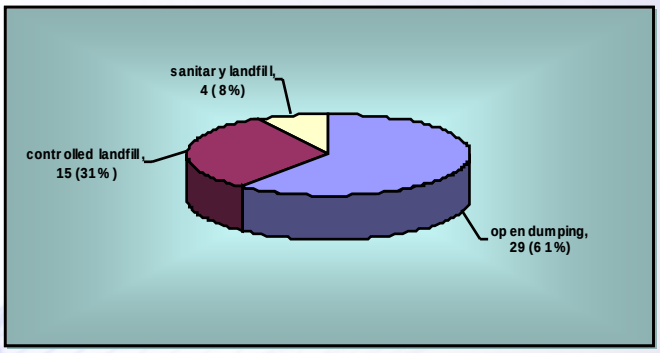
The type of formal institution SWM in West Java



- The type of formal institution that run solid waste management in a certain city will has significant influence on the SWM performance
- The low Level Of Services in Bandung Solid Waste Management caused by the still under-developed & need assistance (subsidy) from the local government to cover overall operational costs

Current Condition

Final Disposal Site System in West Java

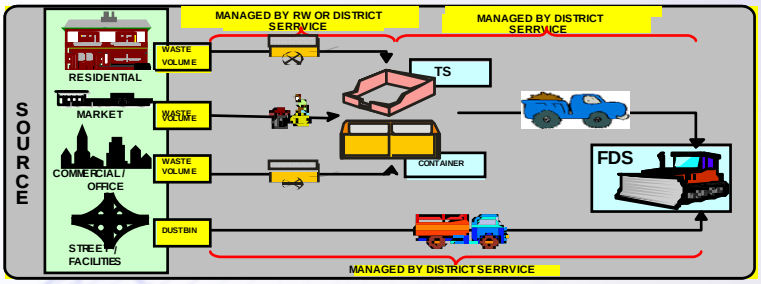


ACTUALLY:

- Most of FDS in West Java Province can be classified as dumpfills, with less than 10% achieving status of controlled landfill.
- No sanitary landfill is in existence although there is some being planned.

Current Condition

Existing SWM Operation



- Solid waste collection to transfer station is managed by community
- Solid waste transportation, processing and final dumping are the responsibility of the operators.

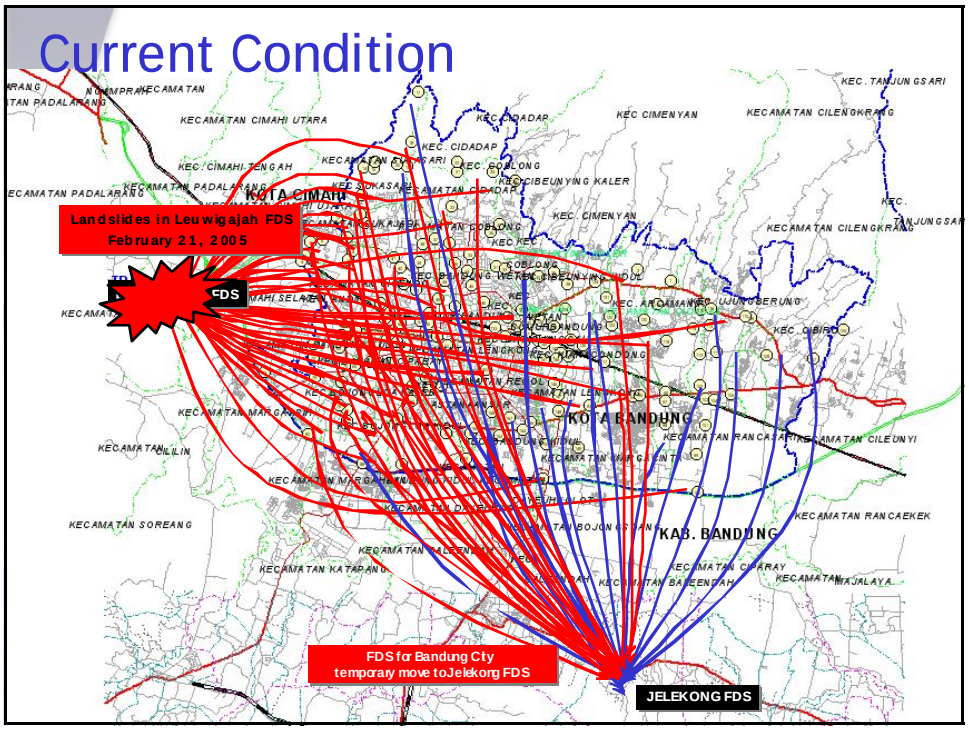
Current Condition

Communities Involvement

communities generally implement simple processing in the form of composting and recycling

the community altogether carried out the solid was management independently

Current Condition



Current Condition

The Problem

JELEKONG FDS:

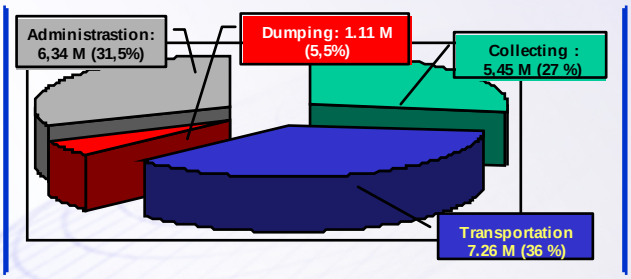
Capacity : 300.000 m3

Lifetime : Until Desember 2005

very difficult to find new FDS areas because the public impression and perception of FDS has been largely negative

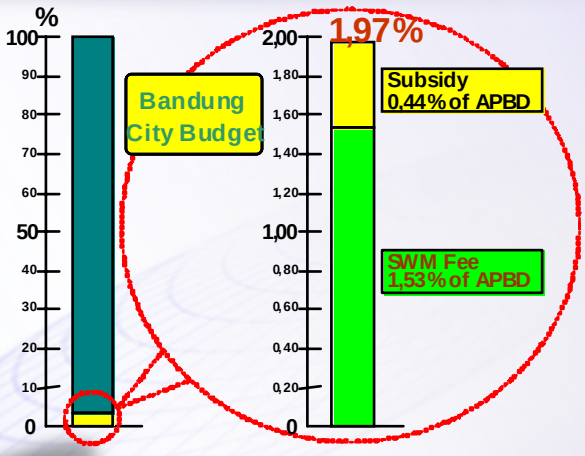
Current Condition

Expenditure on Solid Waste Management Year 2003 in Bandung City



- The cost involved in processing the volume of waste at the FDS is very small
- the solid waste operators put the FDS management at the end priority

Solid Waste Budget



- Budget allocation from APBD (Annual City Development Budget) for solid waste management is lowest compared to other development area.
- Local government put the solid waste management at the lowest priority.

Environmental Pollution

Environmental Pollution around FDS

Surface & Ground Water Pollution

Air Pollution

Soil Pollution

Environmental Pollution

Environmental Sanitation around FDS

slums settlement of scavenger

pond of leachate & many flies

smoke combustion of solid waste

Environmental Pollution

Flood

floods caused by the number of solid wastes in canal or river

Environmental Pollution

Transfer Station by the road side

Transfer Station underneath elevated highway under construction

Needs Of SWM Policy

- Environmental pollution caused by waste management activities in Bandung City
- An appropriate solid waste management policy is needed as reference in implementation of sustainable environmental management

Requirement New Paradigm

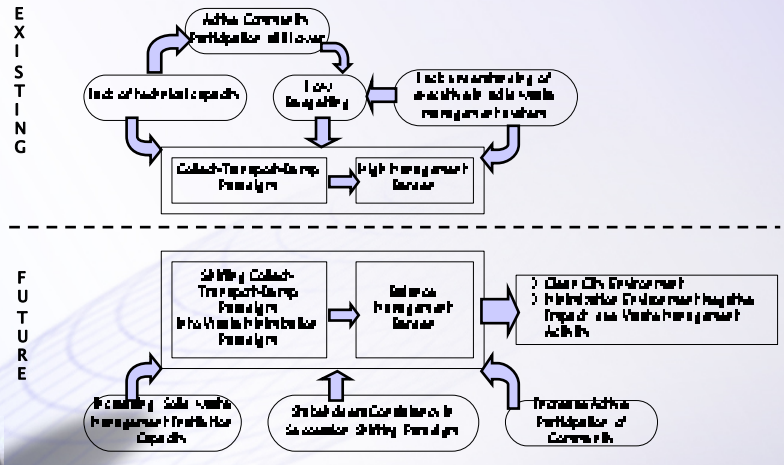
The Root of FDS Problems

- The bad physical and chemical quality of FDS environmental caused by the open dumping method.
- Many factors becoming cause operated FDS by open dumping (technical, budgeting, and also community participation aspect)
- **The paradigm of collect-transport-dump becoming the root of the matter all this**

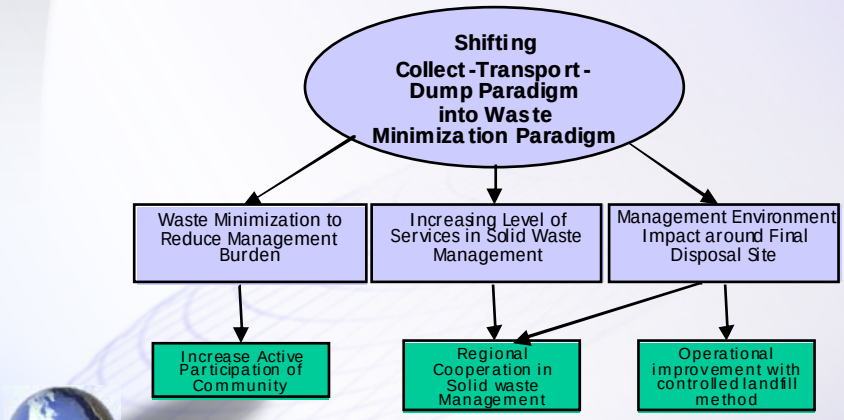
Requirement New Paradigm

- SWOT method analyzed indicates that Bandung City solid waste management system in **SURVIVAL** condition
- Bandung City solid waste management policy have should be changed, where **THE COLLECT-TRANSPORT-DUMP PARADIGM IS CHANGED INTO SOLID WASTE MINIMIZATION PARADIGM**

Shifting Paradigm Framework in Bandung City SWM



From Policy To Strategy



Bandung City SWM Strategy

1

Waste Minimization To Reduce Management Burden

- To endorse local government in order to begin with shift of solid waste management paradigm to a reduction paradigm.
- To make an informal sector of recycling organizers as working partner by opening the business opportunity for them.

Bandung City SWM Strategy

2

Competency of Formal Solid Waste Management Institution

- Increasing capacity and competency of formal solid waste institution.
- Increasing professionalism of institution.
- Developing the financial system to increase the institution competency.

Bandung City SWM Strategy

3

Management Environment Impact Around Final Disposal Site

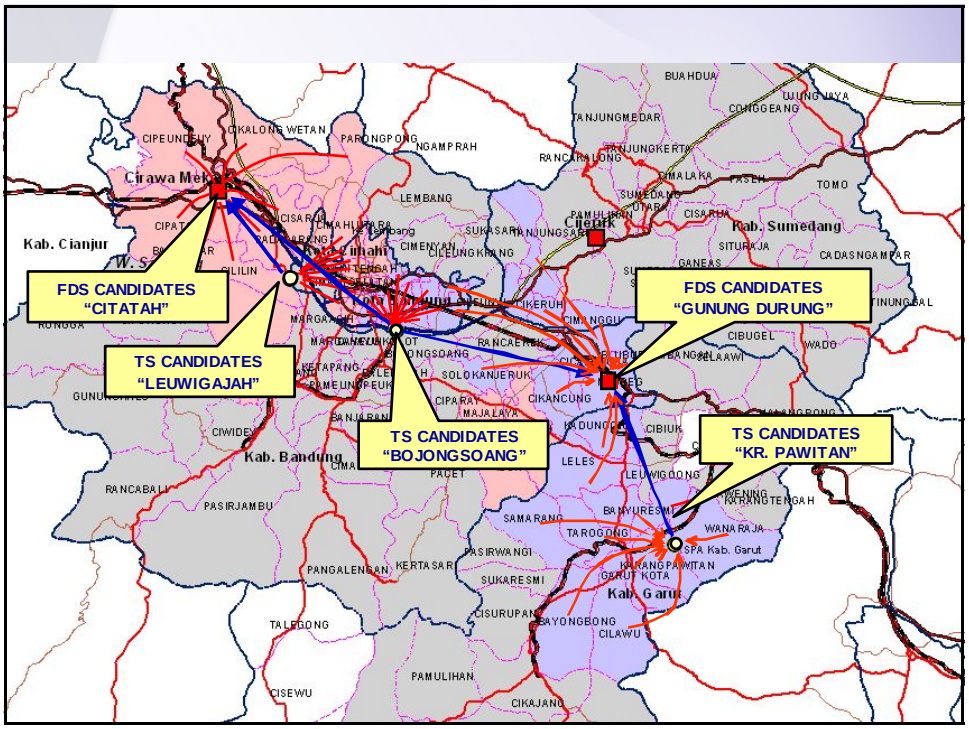
- Improving the condition of FDS environment.
- Rehabilitation of physical-chemical environment condition with an approach of friendly environment technology.
- Operational improvement from open dumping to controlled landfill method.

Bandung City SWM Strategy

4

Regional Cooperation in Solid Waste Management

- To establish a regional cooperation in carrying out the operation of solid waste management.
- To carry out the institutional function of environment quality observation around FDS.



Bandung City SWM Strategy

5

Law Enforcement and Increase Active Participation of Community

- To increase the socialization of regulation and law and its implementation
- To lift the existence of community or society group which has participated actively in solid waste management in order to become the mediator in campaign programmed
- To build an inter community group network which has worked actively in solid waste management.
- To establish pilot project area, which will become an example for the other region.

Bandung City SWM Strategy

The Objective Bandung City SWM Strategy

- Increasing capacity Bandung City SWM institution
- Increasing solid waste recycle center garbage in intercity service scope
- Increasing solid waste recycle information system
- FDS operational has been updated from Open Dumping into Controlled Landfill
- Regional Solid Waste Corporation for Greater Bandung has been implemented

Conclusion

- The environment pollution caused by solid waste management activity in Bandung City reveals that the core of the problem is caused by collect-transport-dump paradigm
- Shifting paradigm in solid waste management policy should be taken, where the collect-transport-dump paradigm is changed into solid waste minimization paradigm
- Final Disposal Site should be developed through the mechanism of inter town cooperation
- Generate and develop an active participation of the community in solid waste management

THE END

Thank you for your kind attention