MYSURU CITY CORPORATION, MYSURU

INTEGRATED SOLID WASTE MANAGEMENT

INTRODUCTION

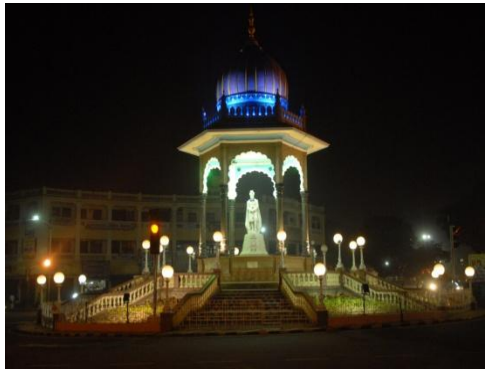
- Heritage city

- City of Palaces

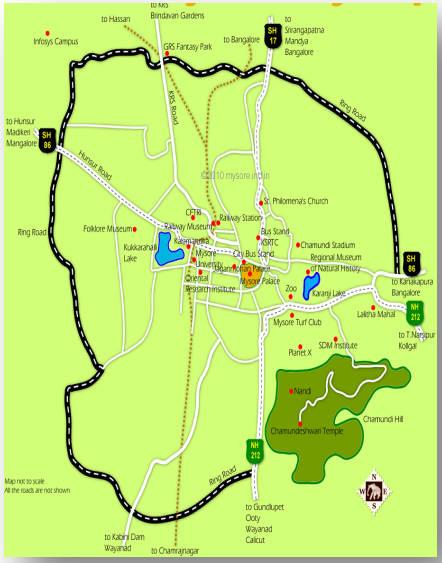
- Green city

- Cultural city

- Royal city
- Retired people’s parad
- Most livable city



CITY PROFILE



- **Mysuru is the second largest city in the state of Karnataka**
- **Capital of the former princely state of Mysore.**
- **Spread across an area of 128.42 km2**
- **An educational, commercial and administrative center, along with tourist and heritage center.**
- **140 km from Bangalore**
- **Tourism is the major industry, while IT Sector has emerged as a major employer alongside the traditional industries.**

PLANNING & DEVELOPMENT

- Planned Mysuru City started in middle of 19th Century.
- Municipal Committee in 1862.
- Sanitary Division in 1885
- The City got India's First urban planning body in 1903 – The City Improvement Trust Board.
- Street lights were provided in 1908.
- UGD system introduced in 1910. Comprehensive drainage scheme was prepared and executed by Sri. M. VISWESWARAIAH the then Chief Engineer between 1908 and 1910.
- Status of City Corporation from 10.6.1977.
- At present Mysuru City Corporation governed by KMC Act 1976

CULTURE, TOURISM & ATTRACTIONS

- The cultural ambience and achievements of Mysuru earned it the sobriquet Cultural capital of South Karnataka
- Famous for cultural festival namely Dasara
- Close to 200 structures in the city with a heritage tag
- With about 3 million visitors every year, Mysore is one of the most visited cities in India.
- Rich in picturesque scenic spots, along with architectural and heritage structures
- There are close to about 20+ major tourist attractions in Mysuru

CITY PROFILE

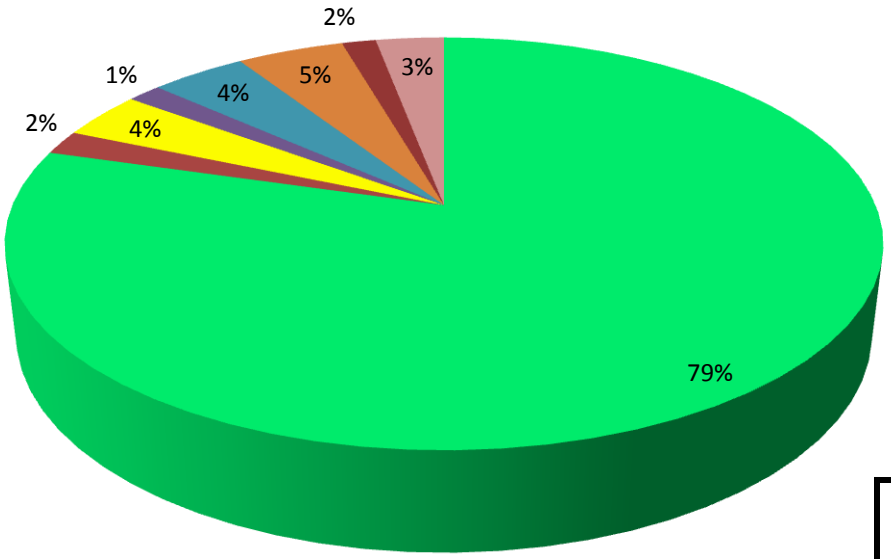
DETAILS	NUMBER
Population	9,14,919
House Holds	2,06,372
Wards	65
Area	128.42 Sq.km
Total waste generated	402 MT/day
Average Height (Above MSL)	770 mts
Average Rain Fall	798.20 mm
Commercial Establishments	26503
Apartments	184
Properties	1,85,864
Road Length	1850 Kms

DETAILS	NUMBER
Cinema Theatres	18
Worship Places	970
Schools	600
Parks	389
Industries	310
Hospitals/Clinics	1048
Marriage/ Function Hall	167
MCC Quarters	262
Municipal Shops	1941
Burial grounds	33
Hospitals/ Clinics	1048

QUANTITY OF MUNICIPAL SOLID WASTE GENERATED IN THE CITY

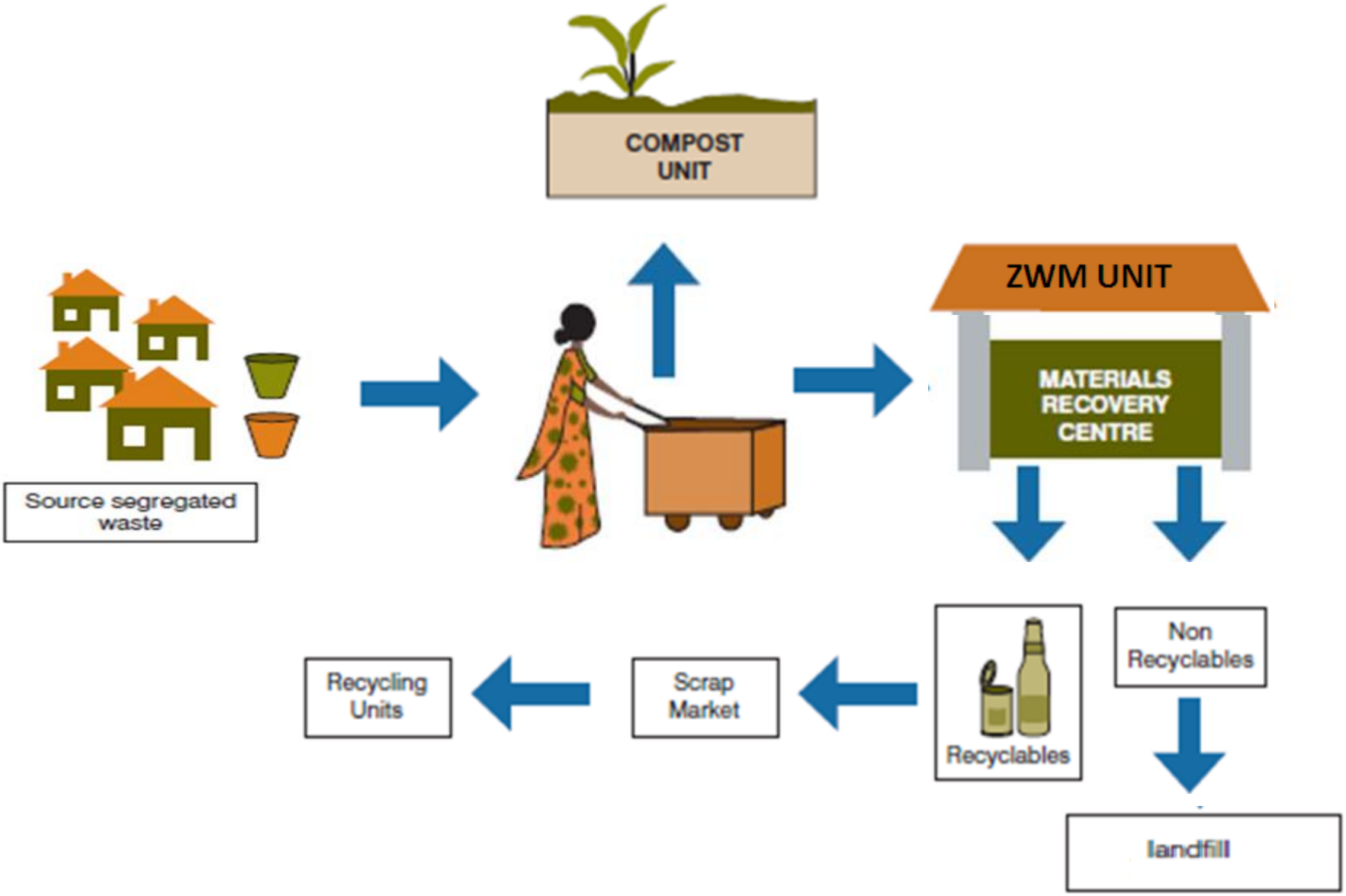
Sl No	Generator	Number	Unit generation per day	Estimated quantity (MT)
1	Population *	9,38,386	360 gram/ capita/ day	338
2	Commercial Establishments	20,329	1.0 kgs per unit per day	20
3	Hotels and Restaurants	716	30 kg / unit	21
4	Marriage and Function halls	124	50 kg / unit	6
5	Street Sweeping			17
Total MSW generated per day in MT (* Includes areas covered beyond MCC limits.)				**402**

SOURCES OF WASTE GENERATION



Sl No	Generator	Number	Waste in tonnes	% of waste
1	Population * (Households)	9,38,386	319	79.35
2	Commercial	19,923	8	1.9
3	Hotels and Restaurants	716	15	3.7
4	Marriage & Function halls	124	6	1.5
5	Street Sweeping	-	17	4.2
7	Garden waste	-	19	4.7
8	Chicken & mutton shops waste	406	6	1.5
9	Market waste	3	12	3.0
Total MSW generated / day in MT			402	

WASTE MOVEMENT IN MYSURU



VEHICLES DETAILS – SWM

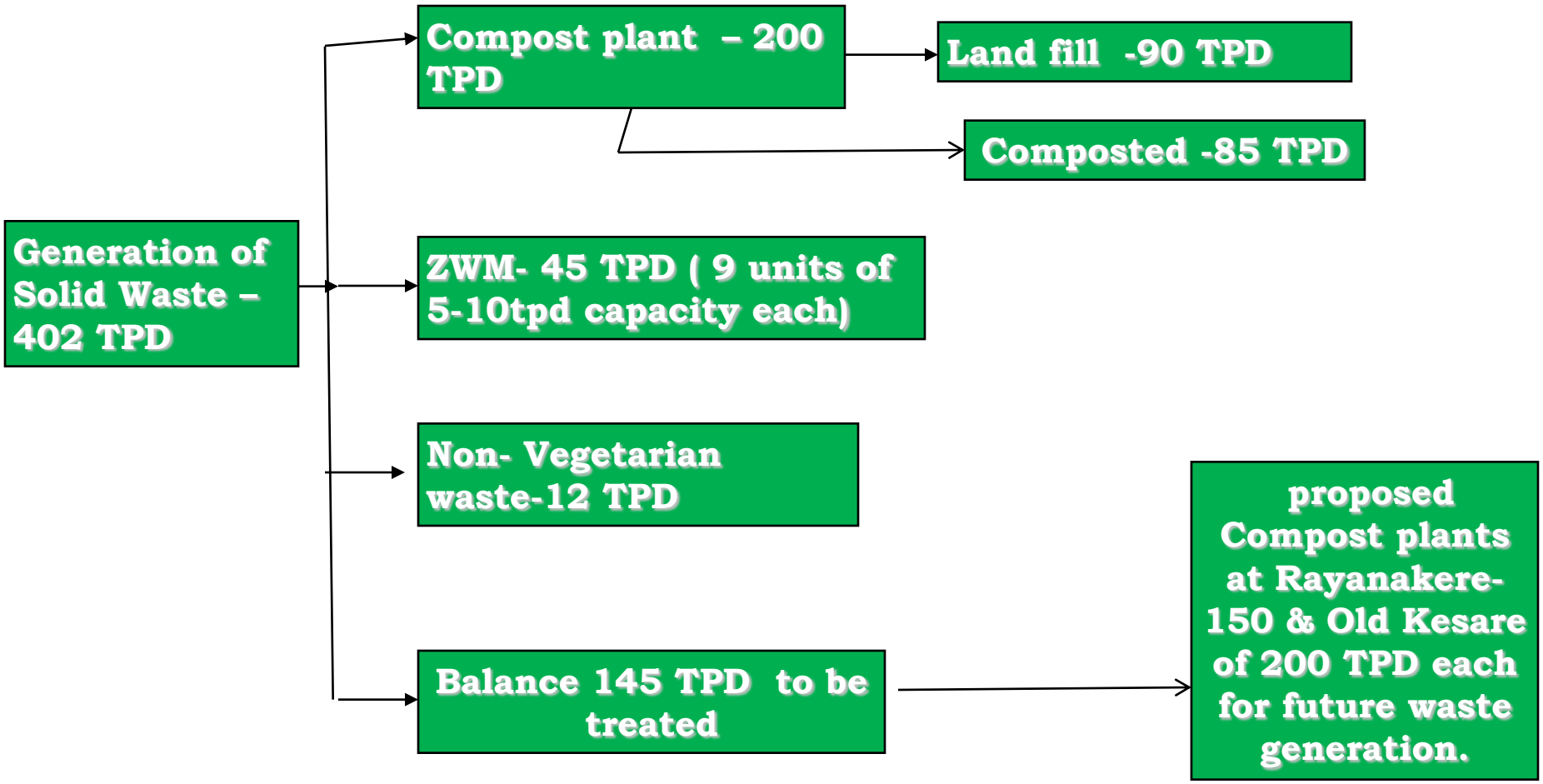
Sl No	Type of Vehicles	MCC Owned Vehicles	Out Source Vehicles
1	Tractor	23	01
2	Tippers	07	27
3	Dumper placer	20	0
4	Compactor	04	01
5	Dog squad	01	0
6	Animal Waste Carrying Vehicle	07	0
7	Auto tippers	168	0
8	Push carts	130	0
9	Sweeping machine Vehicles	01	0
10	Hitachi – ZX-120	01	0
11	Hitachi – ZX-80	01	0
12	Auto mounted Fogging machine	03	0
13	Weed cutting machine	38	0

DETAILS OF WORKERS - SWM

Details	Permanent	Outsourced	Total
SWM	636	1645	2281
UGD	0	230	230
Total	636	1875	2511

PROPOSED ACTION PLAN OF SWM

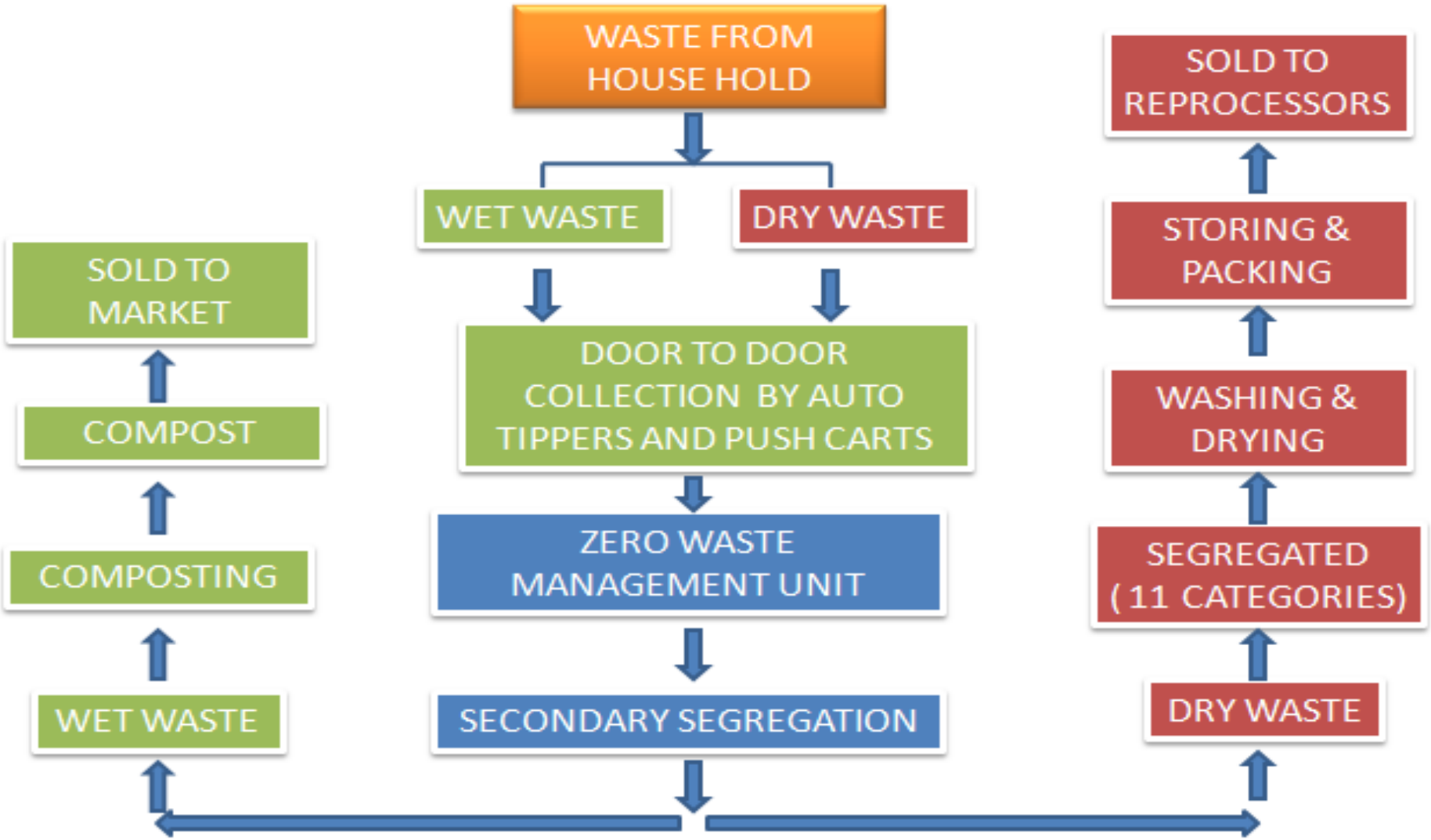
- Proposed to setup 2 new compost plant of 150 & 200tpd capacity
- Action is being taken up to setup 6 Biogas plant of capacity 1tpd each in ZWM Plants under SFC grants.
- Action is being taken to procure Shredders of capacity 10 tpd under SFC grants to increase the capacity of ZWM units.



ZERO WASTE MANAGEMENT

DE-CENTRALIZED WASTE MANAGEMENT – 5- 10 TPD

Flow Chart



COLLECTION OF SEGREGATED WASTE FROM HOUSE HOLDS

1 push cart – 250 House Holds

1 Auto tipper – 1000 House Holds

SECONDARY SEGREGATION OF WASTE

DRY WASTE SEGREGATED

WET WASTE - COMPOST

ZERO WASTE MANAGEMENT UNITS

WASTE

WASTE SEGREGATION

COMPOSTING

DRY WASTE STORAGE

WASTE TRASPORTATION

WASTE SEGREGATION

COMPOSTING

DRY WASTE STORAGE

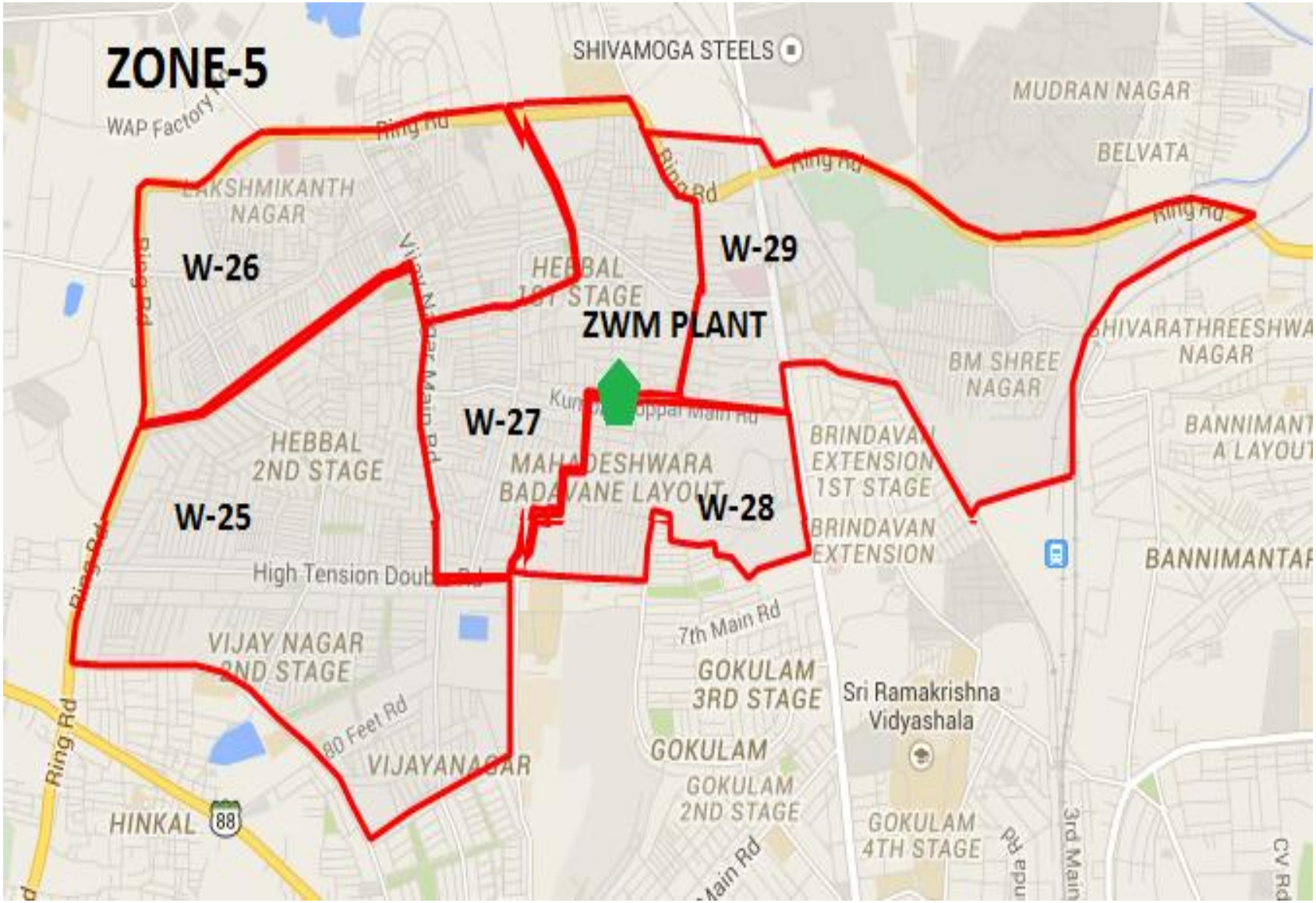
FEATURES OF ZWM MODEL

- Decentralized: Reduce load on centralized compost plant located at outskirt of the Mysuru city.
- Cost-effective: Saves money for city by reducing waste transport costs.
- Energy efficient and environmentally sound: will avoid mixing of segregated waste at secondary collection and transportation level and reduces waste sent to landfills.
- High-resource recovery: Enhances recycling of dry and wet wastes.
- Labor friendly: Makes use of available workers and improves their earnings and quality of work day.
- Sustainable enterprise: Cost and environmental benefits and availability of workforce make decentralized system administratively feasible.

DETAILS OF ZERO WASTE MANAGEMENT UNITS

ZONE NO.	LOCATIONS ZERO WASTE MANAGEMENT	DETAILS OF SHG'S MAINTAINING THE ZWM UNIT'S
1	Vidhyaranyapuram	Shri Laxmi Swa Sahaya Sangha (R),Mysuru.
2	Jayanagara	Solid and Liquid Wast Management Sangha(R),Mysuru.
3	Mysuru University	Mysuru University
4	Gokulam	Gokulam Burrial Ground
5	Kumbarakoppalu	Fedaration of Mysuru City Ward Parliament (R), Kumbarakoppalu, Mysuru
6	Jodi tengina Mara Burrial Ground	Jai Bharathi Samrudhi Samsthe,Mysuru
7	Jodi tengina Mara Burrial Ground	Sri Jayashri Nagara and Gramina Kshemabbhivruddhi Samsthe, Mysuru.
8	Old Kesare	Page Trust India,Mysuru
9	Old Kesare	Page Trust India,Mysuru

ZONE 5 - ZWM PLANT LOCATION



ZONE – 5 ZERO WASTE MANAGEMENT UNIT

WASTE TRASPORTATION

WASTE SEGREGATION

COMPOSTING

DRY WASTE STORAGE

ZONE - 5 ZERO WASTE MANAGEMENT UNIT

- Total Number of Wards: 5 (25, 26,27,28,29)
- ZWM unit is maintained by, Fedaration of Mysuru City Ward Parliament (R), Kumbarakoppalu, Mysuru
- At present segregation is done in 3 wards (Ward No 26,28,29,)

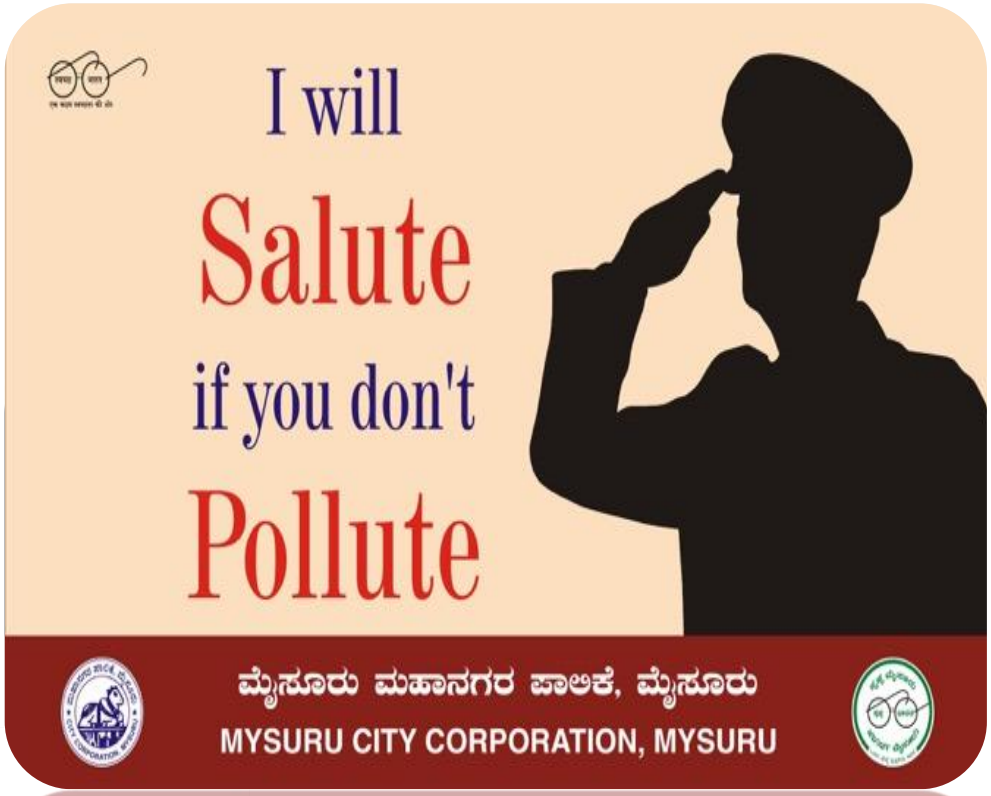
DAILY WASTE COLLECTION (APPROX)				
Sl.No	**Ward No's**	**Quantity of Wet waste received in Kg's**	**Quantity of Dry waste received in Kg's**	**Total Quantity Of Waste in Kg's**
1	26	788	12	800
2	28	2673	27	2700
3	29	1782	18	1800
Total		**5243**	**57**	**5300**

ZERO WASTE MANAGEMENT UNIT

- **9 ZWM UNIT**

DAILY WASTE COLLECTION (APPROX)			
Zone No.	**Quantity of Wet waste received in Kg's**	**Quantity of Dry waste received in Kg's**	**Total Quantity Of Waste in Kg's**
1	4655	1995	6650
2	4800	600	5400
3	-	-	-
4	1782	18	1800
5	5243	57	5300
6	2400	1030	3430
7	4384	1096	5480
8	1169	501	1670
9	2240	960	3200
Total	**26673**	**6257**	**32930**

BENEFITS OF ZWM

- Decentralized Collection of Wastes.
- Recovery of resources at the source level and ensuring effective management of solid waste.
- Provide employment opportunities to people by reducing the use of machineries in operating waste treatment.
- Encouraging community participation.
- Requirement of secondary storage containers reduced.
- All the collected waste was transported to a single processing plant (Compost Plant) @ sewage farm. With this strategy the transportation of waste is decentralised and savings on time of transportation & on the cost of transportation. Life of Sanitary landfill is enhanced.
- High positive environmental impact due to the fact that there is less emission and less use of fuel since this is a decentralized waste management

Refuse,
Reduce,
Recycle,
Reuse