



National Institute of Urban Affairs



सत्यमेव जयते

Ministry of Housing and Urban Affairs
Government of India



Swachh Bharat Mission

SWM City Cluster Exposure Workshop, 2018

Conducted by

National Institute of Urban Affairs & ICLEI South Asia, iDeCK, ICAP



Supported by

Ministry of Housing and Urban Affairs

Under

Swachh Bharat Mission - Urban

Solid Waste Management Planning

- Municipal solid waste management plan is
 - **ratified document**
 - defines **goals and objectives** of MSWM to be achieved over **specific planning horizons**
 - provides **details of specific actions** to meet these objectives
- Short term plan: 5 years; Long term plan: 20-25 years and Mid term review between 2nd and 3rd year
- Should be integrated with **local term development plans (CDP, Master Plans etc.)**, **National policies and strategies**.
- A **seven step process**, complying with SWM Rules, 2016 and other guidelines provided by the Gol

Step 1

- Policies, Programmes and Legal Framework

Step 2

- Assessment of Current Situation and Gap Analysis

Step 3

- Stakeholder Consultation for MSWM Planning

Step 4

- Preparation of draft MSWM Plan

Step 5

- Schedule for Implementation

Step 6

- Stakeholder Consultation for MSWM Plan Validation

Step 7

- Council Approval for MSWM Plan and Implementation Plan

Step 1: Policies, Programmes and Legal Framework

Identify National and State Policies/Strategies and their Goals

- SWM Rules, 2016 and other Rules for Special Waste (e.g. The Plastic Waste Rules, 2016; The E-Waste Rules, 2016)
- Swachh Bharat Mission, 2014
- National Urban Sanitation Policy, 2008
- Technical Advisory Group on MSWM (2005)
- The Inter-Ministerial Task Force on Integrated Plant Nutrient Management (2005) and others

State Level/Regional/District SWM Strategies/Policies

For e.g. Karnataka and Andhra Pradesh have notified state level MSWM strategies

Identify Overall Goals for ULBs

ULBs should assess their current compliance and determine milestones for achieving identified targets within a specified timeline

Role of Central/State and Local Government

Discussed in detail in SWM Rules, 2016

Institutions and Stakeholders Involved in MSWM Planning

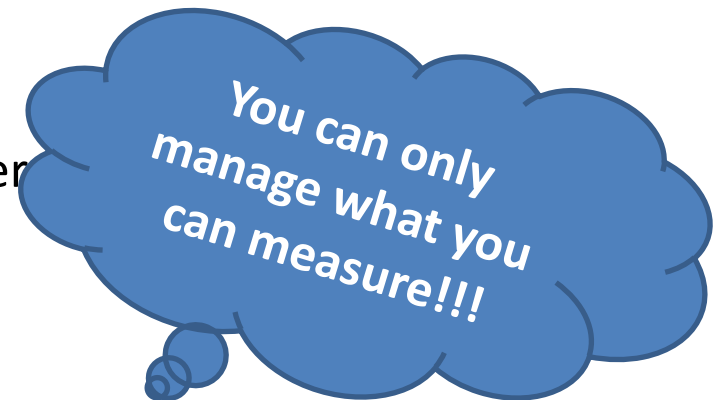
Stakeholder Mapping (HHs, businesses, industries, informal sector, the local government, NGOs, CBOs, SHGs, women's groups, school and college students, and members of other relevant institutions)

Step 2: Assessment of Current Situation and Gap Analysis

Conduct Baseline Analysis and Gap Assessment



- Baseline information from **ward level records, city wide MSWM records** and **field investigations**
- To **understand existing solid waste system as accurately as possible and analyse system deficiencies** and use that information for further planning, implementation and monitoring processes.

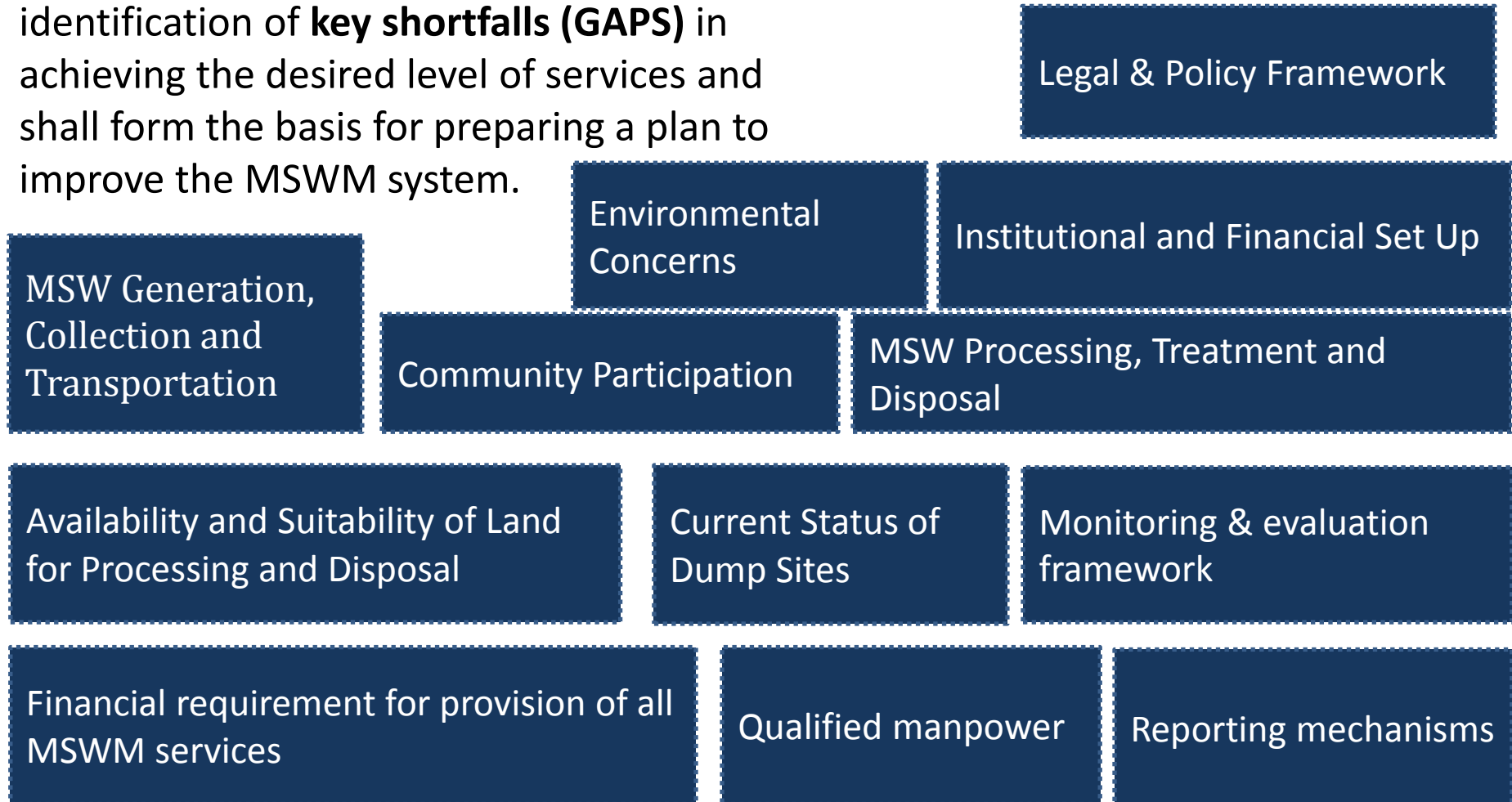


SS 2019: Focus on Segregation, Processing, Sustainable ODF and enforcement of Bye-Laws: Data??

Step 2: Assessment of Current Situation and Gap Analysis

Conduct Baseline Analysis and Gap Assessment

Baseline assessment will help in identification of **key shortfalls (GAPS)** in achieving the desired level of services and shall form the basis for preparing a plan to improve the MSWM system.



Data collection is very challenging !!!

- **Detailed information** regarding adequacy of MSWM services **may not be readily available**
- Collect **secondary data** from previous surveys/ studies undertaken for other purposes
- Some data may be available with **service providers, City Planning Departments, others**
- Essential information may be collected from **field level supervisors**, after training on the type and manner of data to be collected from their respective wards.

VERY IMPORTANT: WASTE QUANTIFICATION & CHARACTERIZATION

WHY: Input for assessment of required capacities and services

WHAT:

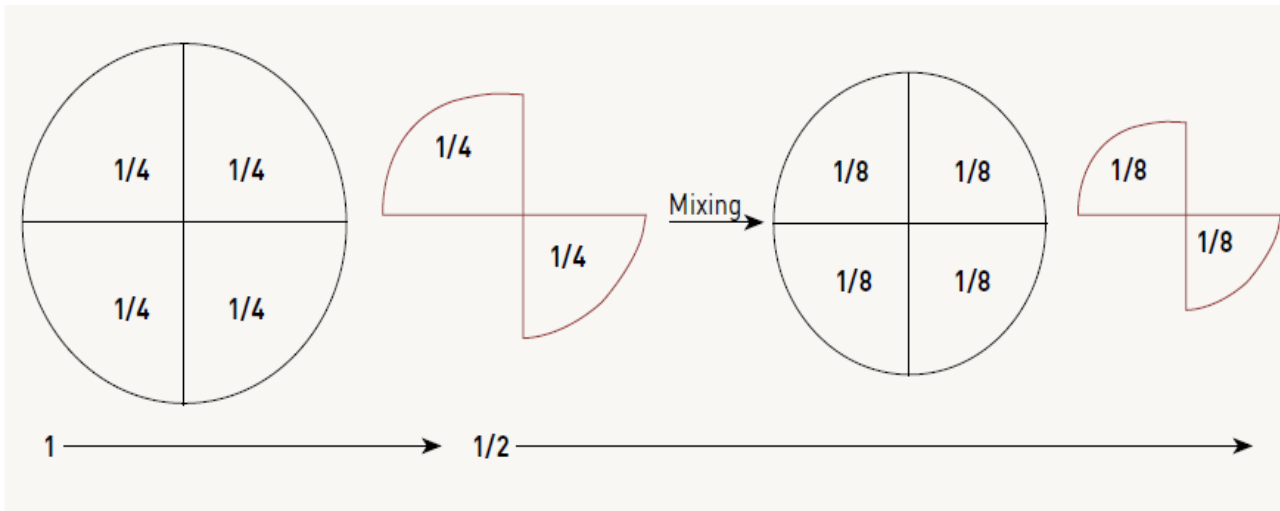
1. Amount of waste generated within the municipality (per type / per day / per year)
2. Spatial distribution of waste generated
3. Composition of waste generated



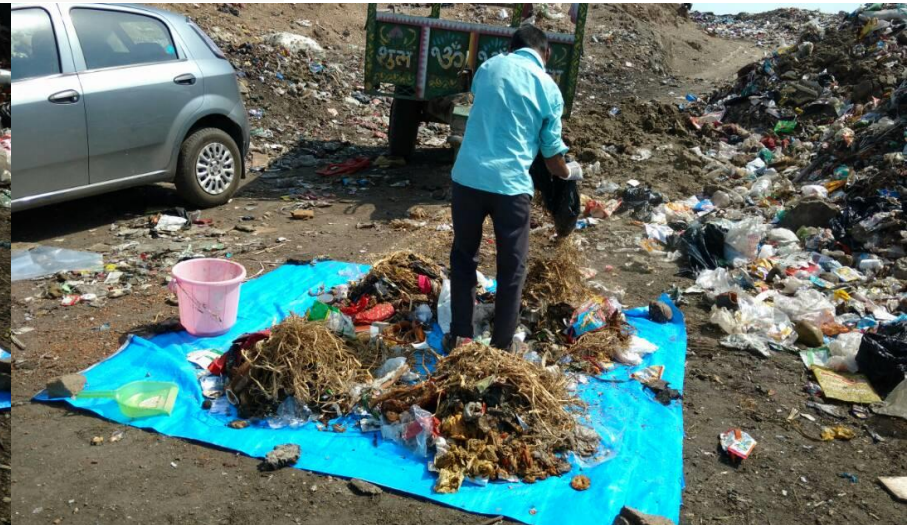
Quantification:

- Rough estimation as per average waste production and composition as a function of city and ward size
- Identification and location of generators of specific wastes or bulk waste (commerce, institutions, hotels, restaurants, etc.)
- Actual field analysis

Characterization: Quartering and coning method is one of the best techniques!!

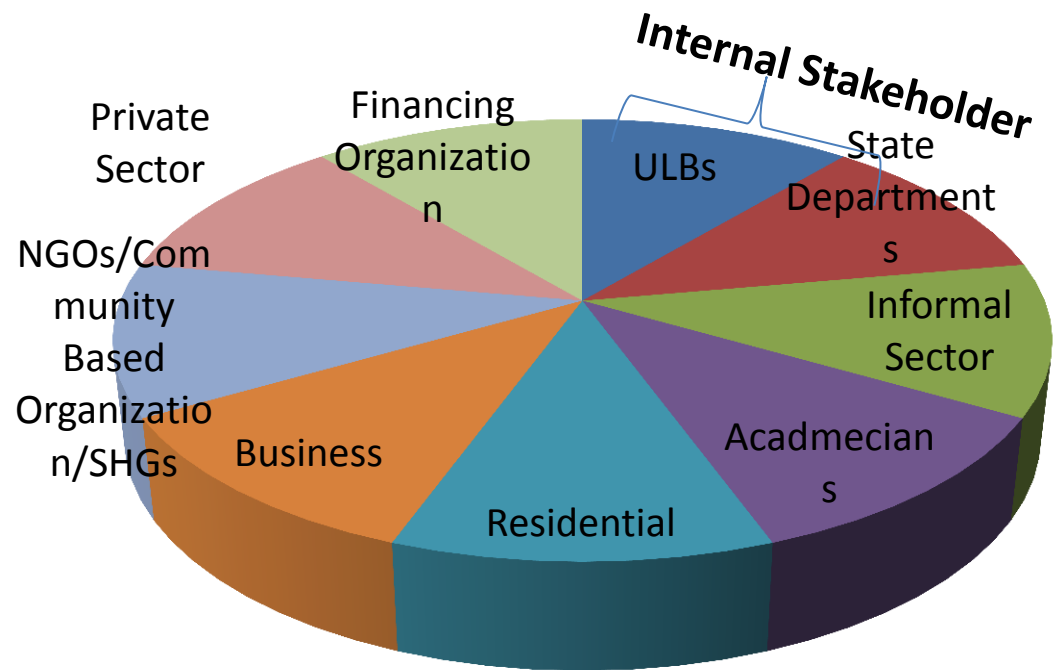


Waste constituents impact selection of appropriate collection, transportation, processing, treatment, and disposal practices!



Step 3: Stakeholder Consultation for MSWM Planning

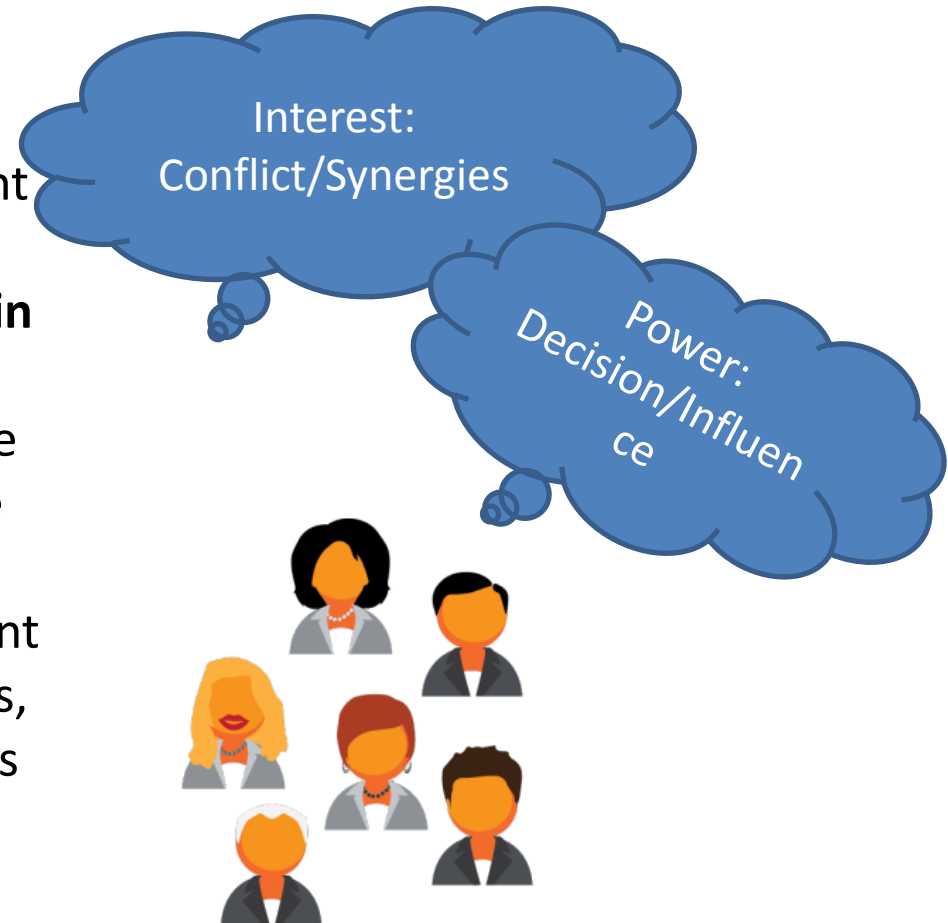
- Large number of institutions and stakeholders involved in MSWM
- Consultative process is important, since involvement of stakeholders also later in implementation is crucial
- Stakeholders to be consulted at **least twice** during MSWM Planning, initially in defining the objectives and goals (Step 3) of the plan and later (Step 6) to discuss the proposed plan and seek their inputs and approval
- ULB may constitute a stakeholder committee for the purpose



Stakeholder Landscape

Stakeholder Consultation is Important to Identify:

- The **ability and willingness to cooperate** in the operation and management of the service
- The **demand** for type and requirement of service and frequency
- Their **attitude towards participating in experiments or pilot projects**, particularly projects relating to source segregation, reuse, recycling of waste and final treatment & disposal
- Their willingness to work with different sections of society, such as rag pickers, municipal workers, and entrepreneurs
- Their **willingness to pay for the services**, the mode of payment, and the **frequency of payment**



Advantages of Stakeholder Consultation

- Solid waste management is a shared responsibility - **participation creates ownership**
- Participants bring **information for the strategy**, ensuring that it is based on a common understanding of purpose, problems and solutions
- **Participation is the most effective way** of communicating information and is critical for decision making

Inclusion of Stakeholder Specially During:

- Implementation of the 3R approach
- Segregation at source and storage
- Door-to-door collection or collection via community bins, collection of recyclables, HHW, etc.
- Stop of public littering
- Introduction of user charges / fees, understanding need to pay for services

Step 4: Preparation of Draft MSWM Plan

Future Projections: Population Forecast; Anticipated Lifestyle Changes etc.

Rules, Regulations & Municipal Bye-Laws

Community Participation/IEC

Institutional and Financial Structuring

Storage, Collection (Door-to-Door & Street Sweeping), Transportation

Identification of Land & Inclusion in City Master Plan/City Development Plan

Selection of Process & Best Available Technology for Processing & Disposal

Community Participation/IEC

Strategic planning, significant cooperation and support from the community is essential for successful implementation of the MSWM Plan!!

- Promote **changes in behavior related to practice of personal hygiene and demand for sanitation products and services.**
- The benefits of toilets and other hardware can be achieved only when **communities and households adopt good sanitation and hygiene behaviors.**
- **Willingness to use, maintain and pay** for sanitation products and services is critical for success of the total sanitation program.
- **Sanitation in personal and public life** is the joint responsibility of individual, community, city and state.



For Effective Community Engagement:

- Develop and **strengthen existing community platforms** (SHGs, CBOs and NULM members)
- Identify **community facilitators /champions** and orient them
- Develop **IEC tools** keeping in mind the **cultural sensibilities of the community**
- Provide **technical knowledge on source segregation**, and different composting methods
- Develop **Master Trainers from ULBs, and CBOs** trained in waste segregation, and facilitate constant mobilization and education of community
- Plan **exposure visit of communities** to SWM unit to get hands-on training
- Train and orient **Resident Welfare Associations, shopkeepers and market associations** on the importance of solid waste management and its effective implementation



Typical Modes of Communication

- Print Medium
- Audiovisual Medium
- Internet
- Social Media
- Interpersonal
- Others like organising rallies, walkathons etc.

School children should be primary targets of IEC campaigns, as they are major agents of societal change!!

Immediate (3 months)

Awareness

Medium Term (12 months)

Advocacy

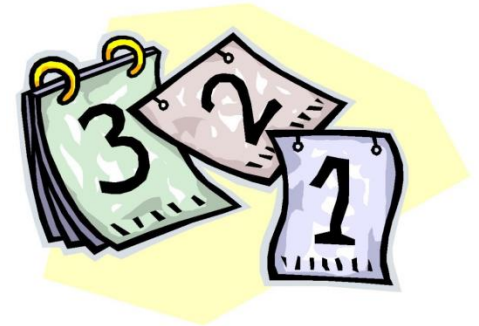
Long Term (5 years)

Change in Behavior and Social Norms



Step 5: Schedule for Implementation

- Timeline, manpower requirement, financial viability
- Municipal authority should specify needs for institutional strengthening and financing
- Operational plan should be prepared as an integral part of the MSWM plan
- Explore possibilities for PPP for infrastructure development and service delivery



Step 6: Stakeholder Consultation for MSWM Plan Validation

- Provision of effective solid waste management services is substantially dependent on community behavior and practices
- Important to again consult with citizens and stakeholders before finalizing plan



Step 7: Council Approval for MSWM Plan and Implementation Plan

- The final MSWM plan is to be presented to the elected body of the local authority to seek approval and to officially formalize the plan
- Council should be made aware of the short term and long term actions to be taken
- Council should also approve the financial plan and necessary institutional strengthening for implementation of these actions
- City council ratification of the MSWM plan, along with an agreed implementation schedule, is vital for future implementation
- The services to be outsourced Public Private Partnership model/ private operator should be made aware of the MSWM plan made by the ULB.



Thank You