



Egyptian Effort on SWM Data Collection Using Wasteaware Indicators

WASTE MANAGEMENT REGULATORY AUTHORITY (WMRA), EGYPT



WMRA

The Waste Management Regulatory Authority was established by a decree from the Prime Minister in *November 22, 2015*.







The Authority seeks to regulate the sector by defining the roles and responsibilities of all parties working in the field of solid waste, in addition to creating investment opportunities in the field of waste management and capacity building to reform the waste management system in Egypt.



MANDATES

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1

Preparing national policies and plans for the waste management system.

2

Organizing roles and responsibilities among the different actors in the waste management system in accordance with the provisions of this law.

Technical control over all integrated management activities.



Determining of pilot prices for waste system service.

5

Preparation of the standards and guidelines for all stages of contracting, contributing to the evaluation of tenders to serve waste management and providing the necessary technical support at the central and local level.

4

Determining the geographical area of the integrated waste management services in cooperation with the concerned authorities.

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Issuing the necessary guidelines to implement the master plans at the governorate level.

11

Preparing training plans and models and building the capacity of the actors in the waste management system.

7

Preparation of the main performance indicators for monitoring, monitoring and evaluating for waste management activities.



Preparing a proposal for developing and updating the legislation, laws, regulations, standards and technical rules governing the management of integrated waste management.



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Availability of data and information related to the waste sector.

10

Providing technical consultancy services to the competent authorities as well as the actors in the waste management system.



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Providing technical support for awareness raising programs and community commitment.

14

Proposing the economic and financial mechanisms necessary to achieve the objectives of integrated waste management in cooperation with the concerned authorities.

Preparing studies for pilot projects and initiatives to develop integrated waste management system.

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Preparing technical studies and proposing mechanisms for determining the performance of integrated waste management services. **17**

Encouraging research and studies individual institutional and initiatives that projects and contribute to improving the performance of waste management and cooperation with external bodies in achieving this in all areas of waste management.

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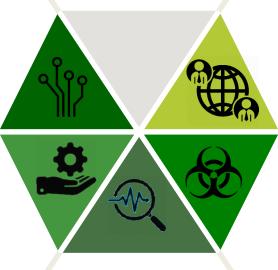
Encouraging investment opportunities in the field of integrated waste management in coordination with ministries and concerned authorities.

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Expressing technical opinion on technologies related to waste treatment and recycling processes in coordination with ministries and concerned authorities.

20

Providing technical support and preparing the general requirements, rules and procedures necessary to obtain licenses to carry out activities related to waste management.



21

Monitoring the licensed people in the integrated waste management activities to evaluate their performance periodically

23 Expressing its opinion on joining the international and regional conventions related to waste and follow up the implementation of the commitments of Egypt on joining these agreements with the ministries and concerned authorities.

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To grant licenses for any activity of the integrated management of non-hazardous waste



BENCHMARK INDICATORS IN EGYPT



USE OF WASTEWARE INDICATORS IN EGYPT

- UN Habitat ISWM indicator set updated and tested in 5 cities within 2012 study on operator models (among them Qena, Egypt)
- "intermediate" indicators used to establish baseline situation in 19 cities and large villages in seven Governorates in Egypt
- 2014: further updated indicator set (WasteAware indicators")

Assessment by assessor (based on existing information from officials) and national consultation process in Egypt:

- Tailor the benchmarking indicators to national situation in Egypt
- Provide an overview about system performance even in relative absence of detailed data
- Identify a set of Key Performance Indicators (KPI) for monitoring waste management performance in the Governorates



USE OF WASTEWARE INDICATORS IN EGYPT

Adjustments to national context

- introducing a new category for 'Very Low' performance in the quantitative indicators and adjusting thresholds to suit the local conditions;
- sub-indicators 1.1.1 'full waste collection service' and 1.1.2 'basic waste collection service'
- sub-indicators 2.1 'controlled treatment and disposal' and 2.2 'semi-controlled treatment and disposal'
- addition of new criteria to some of the qualitative Wasteaware indicators



ADJUSTMENT IN EGYPT

Table 2: The modified Wasteaware benchmark indicators used in the field assessment study of the SWM systems

| No. | Category | Benchmark Indicator | Thresholds | Traffic light colour coding | | | | | |
|---------------------|---|---|------------|-----------------------------|-------------|----------------|--------|-----------------|--------------------|
| | | | | Very Low | Low | Low/ Medium | Medium | Medium/ High | High |
| Physical Components | | Benchmark Indicator | - | - | - | - | - | - | - |
| 1 | Public health – waste collection | 1.1.1 Full waste collection coverage | New | 0-25% | 26 – 49% | 50-64% | 65-79% | 80-89% | 90 - 100% |
| | | 1.1.2 Basic waste collection coverage | New | 0 - 25% | 26 – 49% | 50-64% | 65-79% | 80-89% | 90 - 100% |
| | | 1.2 Waste captured by the system | Modified | 0 – 25% | 26 – 49% | 50-64% | 65-79% | 80-89% | 90 - 100% |
| 1C | | Quality of waste collection service | Original | - | 0 – 20% | 21 – 41% | 42-62% | 63 – 82% | 83 – 100% |
| 2.1 | Controlled treatment and disposal | Full controlled treatment and disposal | New | 0 – 25% | 26 – 49% | 50-64% | 65-79% | 80-89% | 90 - 100% |
| 2.2 | | Basic (semi-controlled) treatment and disposal | New | 0-25% | 26 – 49% | 50-64% | 65-79% | 80-89% | 90 - 100% |
| 2E | | Quality of environmental protection of waste treatment and disposal (if criterion 2E.4 'efficiency of energy generation and use' is available) | Original | - | 0-20% | 21-41% | 42-62% | 63-82% | 83- 100% |
| | | Quality of environmental protection of waste treatment and disposal (if criterion 2E.4 'efficiency of energy generation and use' is not available) | Original | - | 0-24% | 25-44% | 45-64% | 65-84% | 85- 100% |
| 3 | Resource Management – Reduce, Reuse, Recycle | Recycling rate | Original | - | 0-9% | 10-24% | 25-44% | 45-64% | 65% and over |
| 3R | | Quality of 3Rs – Reduce, reuse, recycle | Original | - | 0-20% | 21-41% | 42-62% | 63-82% | 83- 100% |



WASTEWARE INDICATORS

Use for national process:

- Proposal for national KPIs evaluated as useful:
 - Containerised or 'door to door' waste collection service;
 - Waste treatment and disposal in controlled facilities;
 - Source separation of household waste;
 - Inclusion of the informal sector into the formal SWM system; and
 - Waste education and awareness.

 GIZ project developing easy to use software in Arabic as a monitoring tool in all governorates (to be used by WMRA)



DEVELOPMENT OF SOFTWARE

المكونات المادية

| مز | النتائج الرد | البيانات /المؤشر المرجعي | الفئة | مسلسل |
|---------------|--------------|---|---|-------|
| مرتفع | 100% | 1.1.1 تغطية الجمع الكامل للمخلفات (%) | الصحة العامة- جمع المخلفات | 1.1.1 |
| مرتفع | 100% | 1.1.2 تغطية الجمع الأساسي للمخلفات (%) | الصحة العامة- جمع المخلفات | 1.1.2 |
| مرتفع | 100% | 1.2 المخلفات المجمعه والمنقوله إلى مرفق رسمى من قبل نظام إدارة المخلفات الصلبة (%) | الصحة العامة- جمع المخلفات | 1.2 |
| متوسط | 71% | جودة خدمة جمع المخلفات وتنظيف الشوارع(%) | الصحة العامة- جمع المخلفات | 1C |
| مرتفع | 98% | التحكم فى المعالجة والتخلص من المخلفات (فى موقع محكوم) (%) | التحكم البيئى - معالجة المخلفات والتخلص منها | 2.1 |
| منخفض / متوسط | 52% | التحكم فى المعالجة والتخلص من المخلفات (فى موقع شبة محكوم) (%) | التحكم البيئى - معالجة المخلفات والتخلص منها | 2.2 |
| متوسط | 71% | القيمة الطبيعية (%) | درجة الحماية البيئية فى معالجة المخلفات والتخلص منها | 2E |
| متوسط / مرتفع | 80% | معدل اعادة التدوير (%) | نوعية إدارة الموارد - الحد من التولد، إعادة الإستخدام، إعادة التدوير | 3.1 |
| متوسط | 79% | القيمة الطبيعية (%) | نوعية إدارة الموارد - الحد من التولد، إعادة الإستخدام، إعادة التدوير | 3R |



NEXT STEPS

- Need a system to continuously collect data and report on indicators- roll out of software.
- Development of master plans in the 27 governorates is nearly completed and would provide a useful baseline and mechanism to monitor progress.
- Need to practically use the indicators to incentivise improvements and progress- e.g linking national government subsidies to performing governorates.



METHODOLOGY FOR SDG INDICATOR 11.6.1

- Methodology is well established however need to take account of developing country situations.
- Definition of "Adequate Discharge" need to take account of the existence of controlled dump sites in developing countries, which is a gradual improvement from open and uncontrolled dump sites even if they do not qualify as full sanitary landfills.
- The word "discharge" needs to be better defined and it is better to use waste "treatment and disposal" which is more common terminology in the waste sector.
- The challenge of how to capture recycling rates of the informal sector continues to exist which makes reporting accurate figures very difficult. e.g Egypt



Thank you