



TRAINING MANUAL 5 ISWM PROJECT DESIGN AND MANAGEMENT

MODULE 5-5: ISWM OPERATIONAL MANAGEMENT

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GTZ-ERM-GKW

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ISWM Operational Management

This module provides an overview of ISWM operational management. The overall approach is that ISWM operational management should reflect “output-based” approaches. That is, that management should establish the results desired for individual ISWM operations and should shift focus from managing inputs to managing the achievement of those results.

The intended audience for this module is operations management with line responsibility for individual ISWM operations. Although some of the topics introduced in this module are similar to some of those introduced in the companion module “ISWM Systems Management/Administration”, the way these topics are addressed by ISWM system managers/administrators varies considerably as compared to the way they are addressed by operations managers. The two modules are therefore complementary between the different audiences for whom they are targeted.

It is intended that delivery of this module will be undertaken in such a way as to encourage interaction and discussion among training participants, and between the participants and the instructor. Throughout, the instructor should introduce subject matter and should ask participants how they would apply the concepts that have been introduced, what experiences they have had with similar initiatives to those that are discussed and how they might be improved in light of experience, and relevant examples they may have that illustrate points made from their own experience.



OBJECTIVES

The Objective Of This Module Is To Facilitate Capacity Development In “Output-Based” Approaches To ISWM Operational Management. The Module Therefore Addresses The Following:

- What is an “output-based” approach?
- Goals and objectives
- Private sector context
- Monitoring
- Organisational issues
- Community Perspectives and Capacity Development

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Objectives

The objective of the module is to provide a basic training to those who are responsible for the management or supervision of waste management operations. Accordingly, the module addresses: (i) what the “output-based” approach is; (ii) the setting of goals and objectives; (iii) the private sector context in output-based ISWM operations; (iv) monitoring of performance; (v) organisational issues associated with output-based approaches; (vi) community perspectives and capacity development.

The module can be presented in conjunction with its companion module “Output-Based Approach To ISWM Systems Management/Administration”, or can be presented on a “stand-alone” basis. The companion module “Output-Based Approach To ISWM Systems Management/Administration” addresses management and administrative issues in the context of strategic ISWM goals associated with an ISWM system as a whole. The present module focuses on the application of the “output-based” approach to operational delivery of solid waste management services.



WHAT IS AN “OUTPUT-BASED” APPROACH TO ISWM OPERATIONS?

A Working Definition:

“Output-based approaches define effectiveness on the basis of results achieved, rather than activities undertaken or money spent”

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What Is An Output-Based Approach To ISWM Operations?

“Output-based” approaches to ISWM operations focus on the “outputs achieved” rather than on the “inputs expended”, or in other words the results achieved by an ISWM project/programme and not simply the activities undertaken or the money spent. Clearly, the two are related: it is not possible to achieve desired results without undertaking appropriate activity and without budget expenditures. However, waste management operations in the METAP region frequently suffer from low productivity and poor quality service. In part this has arisen because solid waste management services are undertaken to fulfill a *function* without adequately focusing on *goals*. This leads to a situation in which the solution to problems becomes defined in terms of the need for more inputs – for example, more money, more people or more skills – rather than in terms of how service delivery can be redesigned to achieve desired goals through better use of available resources.

“Output-based” approaches begin by establishing clearly defined results whose achievement can be monitored and verified. Resources are keyed to intended results, and accountability for achieving these results (and not merely delivering services) becomes the measure for the commitment of new resources. Thus, quantitative waste management goals are set and monitored and focus is placed on achieving goals with maximum efficiency before considering new levels of inputs to achieve the goals. Over time, this approach leads to effective waste management systems that respond innovatively to new needs; a model of continual adaptation and efficiency replaces practices of inertia and inefficiency.



WHAT ARE THE BENEFITS OF OUTPUT-BASED ISWM OPERATIONS APPROACHES?

An Output-Based Approach To ISWM Operations Brings The Following Benefits:

- Clear operational objectives are established
- Work units and individuals are accountable for the results of their actions, and not simply their actions
- Waste management efficiency and effectiveness is enhanced

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What Are The Benefits Of Output-Based ISWM Management Approaches?

A first benefit of output-based ISWM management approaches is that clear operational objectives are established. Establishing *clear operational objectives* provides a basis for operations managers to determine the effectiveness of their programmes and to track this over time. Precision regarding objectives allows resources to be targetted to where they will do most good and prevent them from being dissipated across activities that do not adequately contribute to central objectives. It also provides a basis for determining value for money spent.

Establishing precise operational goals impacts how operational units and individuals perform. The measure of performance moves from simply whether actions have been taken to include the effectiveness of those actions. *Work units and individuals are accountable for results* of their actions, and not simply their actions. Accountability for the results of actions leads directly to improved individual and organisational performance.

As a consequence of the above benefits, output-based ISWM operations achieve *enhanced waste management efficiency and effectiveness*: more is achieved with available resources.



GOALS AND OBJECTIVES

Quantified Operational Goals Should Be Established For:

- Street sweeping
- Collection/transportation
- Recycling/treatment
- Disposal

A set of goals should link technical performance with cost, social benefits and environmental benefits.

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Goals and Objectives

Goals and objectives should be established for all operational components of a waste management system and should provide a basis for determining overall operational performance in the context of the social and environmental benefits achieved for the costs incurred. Traditional measures of waste management effectiveness may be helpful, but may not be adequate. For example, waste management service coverage may be high in the context of *street sweeping and collection/transportation* (i.e. number or percentage of a population receiving waste collection), but desirable results may still not be achieved: in a recent study in Aleppo, it was determined that although service coverage was high and collections frequent up to 25 percent of waste remained in the street in some serviced areas. Rather than focusing on service coverage, it is therefore preferable to focus waste collection goals on “percentage of waste removed” and to design and maintain levels of street sweeping and service coverage and frequency of collections focussed on this goal rather than focussing on maintaining wide and frequent delivery of a service that is inappropriately designed or operated.

Similarly it is important for *recycling/treatment* and *disposal* to set goals that relate to the reason for these initiatives rather than simply the activity involved. Thus, goals related to the amount or percentage of waste placed in a waste disposal facility should relate to the purpose of the disposal facility. It is more meaningful to establish a goal that “all waste that is destined for disposal will be placed in a waste disposal facility that is protective of human health” than it is to set a goal that simply refers to placing waste in a disposal facility, since placing waste in a disposal facility that is not protective of human health incurs cost without commensurate benefit – but is commonly done in many METAP countries. When goals are linked to purpose (in this example, to protect human health) they lead to action that is not possible when goals are linked only to actions (in this example, simply the placement of waste in a disposal facility).

A range of *cost-related goals and objectives* are possible. Goals can target the provision of waste management services on a cost per household, or a cost per tonne of waste collected basis. This requires management systems that can report these costs. Service delivery goals expressed in terms of cost help to maximise efficiency, but should also make reference to the purpose of the service since the objective is not simply to provide a cheap service, but to provide a *service that is protective of health and the environment*.



KEY ISSUES IN ACHIEVING ISWM OPERATIONAL GOALS

For ISWM Goals To Be Tools To Achieve Better Results They Should Be:

- **Part of a management framework for ISWM operations**
- **Challenging but measurable and achievable**
- **Understood and acted on by staff**

Success in meeting goals should be shared within a team

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Key Issues In Achieving ISWM Operational Goals

Output-based management underlies a broad approach to the delivery of waste management (and other) services. It requires a different type of thinking among operational staff than they have been accustomed to because it requires them to think in terms of the consequences of their actions and not simply the performance of an activity. Consequently, time may be required before the results of the new approach are seen. Output-based management should therefore be considered as part of a long term management approach to ISWM operations, and not as a “quick fix”.

Goals should be challenging, but achievable. The purpose of ISWM goals is to lead a waste management programme to increasingly better performance, not to set it up for failure because goals were set too high or were arbitrary. A certain level of baseline information is required on which to establish current levels of performance and to serve as the basis for improved performance, and goals can be adjusted as more information becomes available over time; this will prevent goals from being arbitrary. An incremental approach can be established towards achievement of goals so that a desired end-point that seemed too ambitious to begin with is gradually achieved over time.

Goals should be understood and acted on by staff. Partly, this means they should understand what is expected of them. Partly, it means that job descriptions and job performance should reflect the contribution of an individual to goals being pursued by a team, and individuals should be evaluated and rewarded for performance that helps achieve goals, and held accountable for performance that does not. (See as well Training Manual 5: Module 5-3 on ISWM System Management/Administration). Recognition for success in meeting goals should be shared within the team that achieved the success.



GENERAL PERFORMANCE GOALS FOR ISWM OPERATIONS

Performance Goals Can Be Set For All Aspects Of Solid Waste Management:

- Service goals can relate to effectiveness of street sweeping, collection, recycling, treatment and disposal
- Financial goals can relate to maintaining or increasing service at lower cost
- Social and environmental goals can relate to improving the social and environmental benefits of waste management operations

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General Performance Goals For ISWM Operations

Performance goals can be established for waste management operations and for the financial, social and environmental context in which services are provided. Other categories of goals might also be relevant.

An initial challenge for many local waste management entities will be to establish an initial baseline against which goals can be established. Basic information on many aspects of waste management is frequently not collected or maintained, and this makes it difficult to establish goals relevant to the existing context. On the other hand, precise information may not be necessary to begin and initial goals can be about defining basic levels of acceptable service as much as trying to improve on service levels. Once basic service levels have been clearly established, goals can be revised to lead the effort to raise standards and performance in a step-wise manner starting with the highest priority issues to address.

Importantly, some goals may address community actions. Goals to reduce the amount of uncollected waste in the street, for example, may require action on the part of individuals not to throw litter onto the street, and action on the part of market vendors to use waste containers more frequently.

Goals in themselves will not improve solid waste management operations. However, goals supported by appropriate actions will. Once goals are set, appropriate actions in support of achieving the goal are necessary.



PERFORMANCE GOALS FOR WASTE MANAGEMENT SERVICE DELIVERY

Specific Performance Goals For Waste Management Service Delivery Can be Developed For:

- Street sweeping (e.g. percent of streets swept)
- Collection/transportation (e.g. collections missed per 1000 scheduled collections)
- Recycling/treatment (e.g. percent of waste recycled, quantity/quality of compost sold)
- Disposal (e.g. percent of residual waste delivered to engineered landfills, closure of uncontrolled dumps)

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Performance Goals For Waste Management Service Delivery

There are very many possible goals that might be set for waste management service delivery. Generally, however, they will fall into the major service delivery categories of street sweeping, collection, recycling/treatment and disposal. The types of goals that are set should relate to the scope and performance of service delivery within each of these categories.

Currently, the major waste management service functions in METAP countries are *street sweeping* and *waste collection/transportation*. The effectiveness of these functions varies widely across the region, and within countries effective street sweeping and collection/transportation may prevail in large cities (or at least in wealthier areas of the capital city) but may be less effective elsewhere. Generally, however, there are significant gains to be made in the effectiveness of street sweeping/waste collection in terms of extending collections to unserved, or under-served, areas and in reducing the amount of waste on the street or dumped in vacant or open spaces.

Recycling is widely undertaken by the informal sector, but significant quantities of waste may remain in residual waste destined for disposal. Goals may be set for the removal of recyclable materials from residual waste, or for the incorporation of the informal sector into the formal waste management sector. Goals for *treatment* might relate to tonnages or percentages of organic waste composted, the quality of compost or the quantity of compost sold.

Disposal facilities are frequently poor throughout the region. Initial goals might be established for the proportion of residual waste (i.e. waste that is not recycled or treated) that is managed in disposal facilities of any kind or in engineered landfills; goals might also be established for the closure of uncontrolled dumps where better alternatives for disposal are available.



PERFORMANCE GOALS FOR ISWM FINANCIAL FRAMEWORKS

Specific Performance Goals For ISWM Financial Frameworks Can Be Developed For:

- Internal financial management capacity
- Unit cost of solid waste management operations on a per tonne or per household basis
- Efficiency/productivity of workforce
- Efficiency of revenue/cost recovery measures

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General Performance Goals For ISWM Financial Frameworks

Waste management is often the single largest budget item for a municipality, but very commonly in the METAP region financial data regarding solid waste management operations is incomplete or does not exist in a form that allows management decision-making. Low *internal financial management capacity* makes it difficult to establish goals for the financial framework of a local waste management programme; if costs and revenues are not properly accounted for, it makes little sense to set goals for which data is unavailable or incomplete. Accordingly, a first goal for many local entities might be to establish an effective financial management information system in support of solid waste management operations. This will establish a baseline from which goals for improved financial performance can be developed.

Overall *unit costs for waste management operations* are commonly developed on the basis of cost per tonne or cost per household served. Overall unit costs are useful, but can be deceptive; for example, a simple “collect and dispose in a dump” waste management system may be less expensive than a similar system that uses an engineered landfill, but the lower cost of the former system does not equate with that system being preferable to the system with an engineered landfill. Accordingly, it may be more useful to develop unit cost goals for the different waste management operations that are implemented with a view to using these goals to drive down costs and to drive up efficiency for the delivery of that service. Enhanced efficiency is widely feasible in the region, and can result in creating new opportunities to extending waste management services without increasing total service costs.

A key efficiency issue relates to *workforce productivity* since a large proportion of the cost of waste management services relates to the cost of the workforce. Unit measures of “collections per employee”, for example, can be the basis for establishing enhanced workforce productivity.

The *efficiency of revenue/cost recovery measures* is frequently low in the METAP region, and may need to be addressed at a level beyond the waste management sector. Clearly, however, low revenue/cost recovery rates are not conducive to effective waste management, and progressive goals can be established for improving revenue/cost recovery efficiency where it is low. Goals can be established on the basis of the percentage of total monies payable are actually collected.



SOCIAL AND ENVIRONMENTAL GOALS FOR ISWM OPERATIONS

Specific Goals Related To The Social And Environmental Performance Of ISWM Systems Can Be Developed

- Percent of population receiving regular collection
- Number of “value-added” jobs related to waste management
- Incidence of health-related problems in sanitation workers
- Release of greenhouse gases
- Percentage of waste managed in environmentally sound facilities

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Social And Environmental Goals For ISWM Operations

Solid waste management services are intended to serve social needs in ways that are compatible with environmental objectives. Accordingly, goals should be established that reflect the extent to which society benefits from waste management services and the extent to which waste management services are delivered in ways that are compatible with sound environmental practice.

Goals aimed at extending the *percent of population receiving regular waste management collection* target enhancement of the basic function of a waste management system: to remove waste from the community. A basic goal of all waste management systems should be that all areas of urban communities are served by regular waste collection. Other social goals can also be established. For example, goals can be established concerning the number of “*value added*” jobs associated with waste management (i.e. the number of jobs associated with recycling, composting etc.), which can stimulate efforts to link recovery of waste with the wider economy. *Health impacts* of waste management on sanitation workers can be a serious problem (e.g. it has been reported that up to 30 percent of solid waste workers in Egypt have Hepatitis A), and quantitative goals can be set to reduce the incidence of disease and occupational injury among sanitation workers.

Environmental goals can address international initiatives and local priorities. Waste disposal sites can be significant contributors to *greenhouse gas emissions*, and goals to reduce emissions of these gases will imply improved operation of waste disposal sites. Goals might also be set regarding the percentage of waste that is managed in *environmentally sound waste disposal sites*.

Social and environmental goals are likely to lead to improved waste management performance with respect to not only the criterion measures by the goal itself, but in other ways as well. Reducing health impacts of waste management among sanitation workers will also have health benefits for the wider community through higher level of cleanliness and reduced potential for disease transmission. Goals for reducing greenhouse gas emissions in waste disposal sites may result in new energy initiatives (based on use of methane generated in waste disposal facilities) and reduced odour (as a result of capturing and managing landfill gases).



PUBLIC SECTOR OR PRIVATE SECTOR?

Output-Based Approaches To ISWM Operations Can Be Applied To Public Or Private Sector Service Delivery:

- In both cases, the focus is on establishing clearly defined goals that can be monitored.....
- But organisational considerations between public and private sectors need to be taken into account....
- And options are available with private sector service delivery that are not generally available with public sector service delivery

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Public Sector Or Private Sector?

Output-based approaches to ISWM can be applied to public and private sector waste management operations. The first and key requirement in both cases is to establish goals based on current performance baselines, and a schedule for achieving those with interim targets as “milestones” along the way as necessary. Within a public-sector framework for delivery of waste management services, goals and schedules need to be included in the workplans and operational plans of waste management service delivery units. Within a private-sector framework for delivery of services, goals and schedules need to be included in contract documents.

Organisational issues relate to the abilities of public and private sector entities to be accountable for the goals that are established. While this is a significant challenge for public sector waste management organisations that have been focussed on delivery of services (but not necessarily focussed on achievement of service goals), it is a challenge that can be addressed and overcome. However, achieving solid waste management goals may be easier within private sector participation as a result of the incentive to perform created by a private sector contract that is appropriately monitored by the public sector.

A key advantage of using the private sector to meet waste management goals is that *the private sector has options* that may not be available to the public sector. The private sector may have access to investment funds and to expertise that is not available to the public sector. The dependence of the public sector on meeting contract requirements as a condition of payment may drive organisational and individual performance to higher levels than is realistic within public sector waste management service delivery organisations. The ability of the private sector to innovate may also be an important stimulus to achievement of waste management goals.



“OUTPUT-BASED” PRIVATE SECTOR CONTRACTS

“Output-Based” Private Sector Contracts For Solid Waste Management Should:

- Be goal-oriented
- Identify minimum acceptable standards
- Encourage innovation within budget constraints
- Link payments to achievement of goals

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“Output-Based” Private Sector Contracts

The structure of private sector *contracts should reflect the end-results (i.e. goals)* that are desired, and not necessarily the means of achieving the end-results. For example, collection contracts might identify that collection of waste is required to maintain clean and sanitary conditions within a particular area and may define what is meant by “clean and sanitary conditions”, but need not specify the frequency of collection, the number or type of vehicles or the number of people employed to collect waste. Instead, the evaluation of bids based on this requirement would focus on the extent to which proposals would meet this requirement and the cost of doing so. In this example, maximum incentive would be provided to a bidder to develop an innovative solution to meet the requirement at least cost; in practice, in the instance of a new private sector participation initiative a municipality may require a certain proportion of municipal staff to be taken on by the private sector contractor for social reasons, but already this would limit the ability of the selected private sector partner to innovate.

Critically, it is essential for *minimum acceptable standards* to be identified within which goals are intended to be achieved by the private sector partner. Private sector participation is an invitation to help society meet goals within the context of minimum social, environmental and other standards. It is not an invitation to lawless profiteering.

Contracts can be structured to *encourage innovation* and superior performance. For example, a contract for private sector participation in a composting facility may include provision for payment of a certain amount of money by the public sector to ensure the financial viability of the facility in the event that revenues from compost sales are insufficient to cover operating costs – but may also allow the private sector partner to retain additional revenues if they can develop the market for compost and so increase the sale price for compost. Under this scenario, costs to the municipality are decreased (because the subsidy on operations would no longer be needed), revenues to the private sector partner are enhanced (as a result of innovations leading to higher compost sales) and compost users are satisfied that the compost product is worth the price that is being charged.

In all cases, *payments to the private sector* should be made according to an agreed schedule – but only if the goals and requirements of contracts have been met.



MONITORING PERFORMANCE

Operational Performance Should Be Monitored:

- Performance goals should be measurable
- The basis for monitoring should be established as part of service delivery planning
- Monitoring indicators should be used that are simple and cost-effective
- Monitoring should be managed as an aid to enhanced performance

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Monitoring Performance

To be meaningful, verification that goals are being met must be monitored regularly. Accordingly, *performance goals should be measurable* in quantitative terms. The *basis for monitoring* (that is, how it will be done, when it will done etc.) should be established as part of service delivery planning so that monitoring is integrated into the overall programme for solid waste management operations. Monitoring should be done on the basis of “indicators” that “indicate” whether goals have been met; for example, a “collection effectiveness” goal might be monitored by monitoring the number of missed collections in certain parts of a city on certain days, rather than in all parts of the city on all days. Ideally, monitoring indicators will be simple to record and cost effective to implement; in addition, they should be “objectively verifiable” so that subjective judgement regarding an indicator is not required.

The management approach to monitoring ISWM operations should be that *monitoring data assist operations* identify where service improvement can be made. Monitoring data then becomes a “technical assistance” to a solid waste management operations manager, identifying opportunities for improvement and contributing to identification of new goals. Within an organisational structure that is mutually supporting this approach can lead to rapid improvement in waste management performance. However, monitoring data can also be used to cast blame when goals have not been met; this is a highly disruptive use of monitoring data since it may lead to loss of trust and poor working relationships that may cause poorer waste management performance, not better performance.

The public can also be involved in monitoring. A “hotline” can be installed that members of the public can call to report inadequate waste management service, or waste management problems. While this is a very “ad hoc” approach to monitoring, it can ensure that immediate and important operational issues are rapidly addressed and over time patterns of public comment may become evident in terms of perceived shortcomings in some aspect of waste management services generally, or in terms of service to particular areas of a city. Public complaints together with official initiatives have been an effective monitor of performance in Alexandria.



ORGANISATIONAL ISSUES IN OUTPUT-BASED ISWM OPERATIONS

Local Solid Waste Management Entities Can Facilitate Effective Output-Based ISWM Operations By:

- Adopting a policy of continual improvement based on achievement of goals
- Requiring solid waste management operations to report regularly against goals
- Separating the monitoring function from the service delivery function

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Organisational Issues In Output Based ISWM Operations

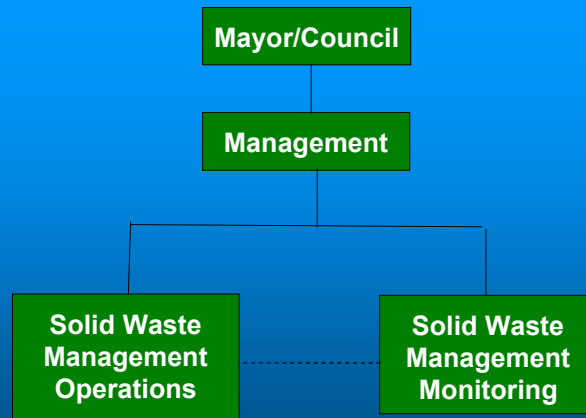
Implementation of output-based approaches to ISWM operations should be placed in the context of an organisational policy in support of continual improvement. This approach has two advantages:

1. Goals can be set to achieve long term objectives over time so that the process of achieving improved waste management performance is evolutionary” within work units. Goals that are set too high initially risk being viewed as “revolutionary” and unattainable.
2. As operational improvements are made, and seen to have been made by stakeholders and the public, decision-makers are likely to be willing to allocate increased resources into what is increasingly viewed as an effective and successful waste management programme, thereby supporting further improvements.

Within waste management institutions there should be a requirement for regular reporting of waste management operations against goals that have been established, and the responsibility for this reporting should be defined in terms of the individual(s) responsible for submitting reports and the dates by which they should be submitted. This institutionalises the reporting function and ensures that the output-based approach is taken seriously by operational staff.

It is very important that responsibility for monitoring be organisationally separated from the responsibility of delivering services. If service deliverers are also responsible for the “objective” monitoring of performance against goals the credibility and adequacy of the monitoring are both suspect. The following slides address this issue from the perspective of a public local entity delivering services, and from the perspective of services being delivered by the private sector.

LOCAL LEVEL INSTITUTIONAL FRAMEWORK IN SUPPORT OF ISWM OUTPUT-BASED OPERATIONS: PUBLIC DELIVERY OF WASTE MANAGEMENT OPERATIONS



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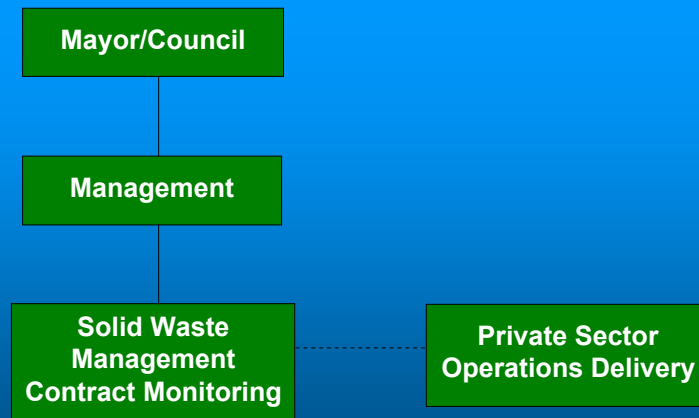


Local Level Institutional Framework In Support Of ISWM Output-Based Operations: Public Delivery Of Waste Management Operations

This slide addresses the structure and reporting functions within local solid waste management entities that deliver waste management services themselves. While there are different ways to structure the monitoring and reporting functions within local solid waste management entities, the main issue for these local entities is to ensure that the function of monitoring is organisationally separated from the function of service delivery. This maintains clear accountabilities: there are those who deliver services, and there are those who monitor the extent to which service goals are being achieved. If this type of institutional separation is not maintained the accountability of those responsible for service delivery becomes confused with the need for monitoring of the services they are also responsible for delivering, and senior decision-makers will not benefit from the independent view that emerges from a separately-defined monitoring function.

Although the functions of service delivery and monitoring should be separated, there should still be communication between service delivery and service monitoring (indicated in the slide by the dashed line). This is important in terms of ensuring feedback from the monitoring function to the operations function, and in terms of the monitoring function being aware of the conditions and constraints of service delivery. It is very important that the monitoring function is viewed as an assistance to service delivery, rather than a policing of service delivery. Where monitoring is an assistance to service delivery, monitoring becomes a support to the delivery function and will be valued by service deliverers. Where monitoring is a policing of service delivery it will be resented as a threat by service deliverers, and will need to be implemented by imposition rather than through acceptance.

LOCAL LEVEL INSTITUTIONAL FRAMEWORK IN SUPPORT OF ISWM OUTPUT-BASED OPERATIONS: PRIVATE DELIVERY OF WASTE MANAGEMENT OPERATIONS



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Local Level Institutional Framework In Support Of ISWM Output-Based Operations: Private Sector Delivery Of Waste Management Operations

This slide addresses the monitoring and reporting function of local level institutions in relation to the delivery of private sector operations by a private sector partner. In this case, the separation of the monitoring function from the service delivery function is complete and accountabilities are clear: the private sector partner is operating under contract to the local entity, and the job of the local entity is to ensure that the terms of the contract are fulfilled. Monitoring by the local entity should therefore be oriented to the specific requirements of the contract, and payment to the private sector entity should be linked to satisfactory performance of all requirements of the contract.

Training Manual 4: ISWM Private Sector participation addresses these issues further.



COMMUNITY RELATIONS

Community Relations Are Important To ISWM System Operations Because:

- Operations must reflect community priorities
- How costs are recovered is directly relevant to communities
- How services are delivered is directly relevant to communities

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Community Relations

Waste management is a public service function that touches the entire community. The ways that people are willing to relate to, or participate in, a waste management system may define its effectiveness technically, financially, socially and environmentally. Accordingly, the way waste management operations are undertaken must reflect *community priorities*, and what is feasible within the community.

The most important community interaction with the waste management system may be the ways that people store and set out the wastes they generate. Technical aspects of waste collection must therefore be well integrated with what the community is willing and able to do to make their wastes available for collection. In many cities in the region, technical options for waste collection are limited by physical constraints such as street width and condition and on-going dialogue with communities may be necessary to ensure acceptable solutions in this regard.

Notwithstanding that improvements are feasible through adoption of “output-based” approaches to solid waste management operations, waste management systems in many countries across the region have been under-funded for many years and new revenues will be necessary to finance service improvements. Communities should have the opportunity to participate in resolution of this issue in order to ensure that *the way that costs are recovered* are acceptable within the community, and that the application of these mechanisms is reasonable. Issues of ability to pay and willingness to pay are important within the community, and the credibility of an entire waste management service improvement initiative can be lost if the way the initiative is paid for is perceived as unreasonable.

How waste management services are delivered is also an important community issue.

Throughout the region, the informal sector plays an important waste management role which is also an important economic role in the creation of micro-enterprise. The ways in which current waste management actors are incorporated within initiatives is an important issue to resolve, particularly where privatisation of service delivery is envisaged. This issue was not adequately addressed in privatising solid waste operations in Cairo, with the consequence of significant delay in implementation; innovations in Tunisia, on the other hand, have created new enterprises and benefits.



BUILDING AN EFFECTIVE COMMUNITY PRESENCE

Creating A Credible Community Presence Can Be Achieved Through:

- Creating stakeholder committees as a basis for two way dialogue
- Providing feedback to the community on waste management performance
- Reliably delivering on service commitments
- Raising the profile and visibility of operational staff

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Building An Effective Community Presence

Operational effectiveness in the community can be greatly enhanced through an operational strategy that integrates communications activities with operational planning and delivery of services. *Stakeholder committees* provide an effective mechanism for managing two way communications initiatives. Committees should include stakeholder representation from the broad range of interests within the community. Issues to be raised concerning delivery of operations include the effectiveness of existing operations, ways in which operations can better serve stakeholders and how new operational initiatives should be tailored to stakeholder requirements; issues around cost and cost recovery can also be raised. It will frequently not be possible for all individuals on a this kind of a committee to agree to their full satisfaction on all issues, but it should be possible for participants to come to a consensus on how best to move forward.

The *provision of feedback* regarding waste management operations can be highly effective in building community presence. This can be important with existing waste management operations, but becomes particularly important when new operations are being implemented. Feedback should be put in a positive context: successes can be clearly communicated and credit given to the community, and problems can be expressed in terms of how the community can help move an initiative ahead. The benefits of new operational initiatives should always be communicated within the community.

It is important that building an effective community presence be built on operational performance, and not simply communications. *Reliable delivery of service commitments* establishes the credibility of a service operator in the eyes of the community. The communications that an operator sends may not be well received if service delivery is weak.

Typically, solid waste management is viewed as a very low level social standing throughout the region, and this leads people to consider solid waste management as a low level and unimportant activity. A *high profile image* can be created though maintaining equipment with brightly coloured paint in good repair, and providing workers with a uniform that they are responsible for maintaining in clean and good repair. This approach was key to a private sector operator establishing an effective community presence in Alexandria.



CAPACITY DEVELOPMENT

Effective ISWM Operations Requires On-Going Capacity Development To Address

- Operations management
- Technical skills
- Private sector management
- Community communications
- Environmental priorities

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Capacity Development

Solid waste management across the METAP region is undergoing rapid change; effective implementation of new ISWM operations requires well qualified and appropriately trained staff at all levels. Continuing focus on capacity development in five areas will be necessary:

Capacity development in *operations management* should develop the “output-based” management themes presented in this training module. All those who have management responsibilities should be exposed to this approach and should be required to adopt it. It will take time for managers to fully adopt the approach, but with appropriate management support effective change can be accomplished.

New ISWM systems will require new *technical skills* in terms of the systems that are implemented and the specific technologies that make up the systems. Training should be required in advance of the application of all new systems and technologies and should form a part of purchase agreements with suppliers. Technical skills training should include equipment maintenance training, as appropriate.

New relationships with the *private sector* require new skill sets. Private sector contracting of operations does not replace the waste management responsibilities of the local level waste management entity; rather, it introduces a new delivery mechanism which must be appropriately managed if desired results are to be achieved. Contracting, contract management, dispute resolution and related subjects are critical skills in support of effective private sector participation in ISWM systems.

Community communications are not well understood in the METAP region. Community communications related to solid waste management are not widely undertaken in the region. Good communications with the community are essential in support of new waste management initiatives, however, and capacity development in this area may be appropriate for all staff whose responsibilities include community communications. In Amman, this function has been contracted to a local non-governmental organisation, and this can also be an effective option.

Capacity development in the *environmental priorities* that are addressed by new waste management initiatives will increase the understanding of operations staff regarding environmental components of new waste management operations, and this will facilitate the proper operation and maintenance of those components.



CONCLUSIONS

This Module Has:

- Introduced the concept of “output-based” approaches to ISWM operations
- Identified goals and monitoring associated with “output-based” approaches
- Illustrated how “output-based” operations can incorporate the private sector
- Linked the “output-based” approach to the community
- Addressed capacity development

The intent is to provide managers with a new and flexible approach to achieving enhanced ISWM operations

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TRAINING MANUAL 5 – MODULE 5-5



Conclusion

This module has introduced the concept of “output-based” management approaches to ISWM operations. The approach challenges solid waste operations managers at all levels to think in terms of the goals that their operations should achieve, and to then design activities to meet those goals. Frequently, this means changing existing activities in order to be able to accommodate new goals – the approach stimulates increased efficiency, increased effectiveness and increased innovation. For this approach to be effective, however, goals must be achievable and they should be quantifiably monitorable. Accountability for achieving waste management improvements is enhanced, success shared through the team. The results of this approach lead to increased waste management performance at the community level.

The “output-based” approach includes the private sector. In fact, the most effective application of the approach can be with a private sector partner whose contract is framed in terms of the results to be delivered, rather than to inputs to be supplied. This demands a clearly articulated and enforced legal framework that establishes minimum social, environmental and other standards within which the private sector partner delivers services. Payments to the private sector partner under this type of framework should be explicitly linked to results whose achievement has been verified by the local public entity responsible for waste management service.

Operations management should be closely linked to the community. Two-way communication is required with the community that is served by a waste management service. This can assist in establishing goals relevant to community needs and in ensuring that the community is informed regarding the ways in which community participation can assist in waste management operations. Operations management should also address operational management capacity development needs, since goals cannot be met if staff are not trained appropriately.

This slide concludes this module. It is helpful to remind participants what they have learned and to encourage them to apply what they have learned in their workplace.