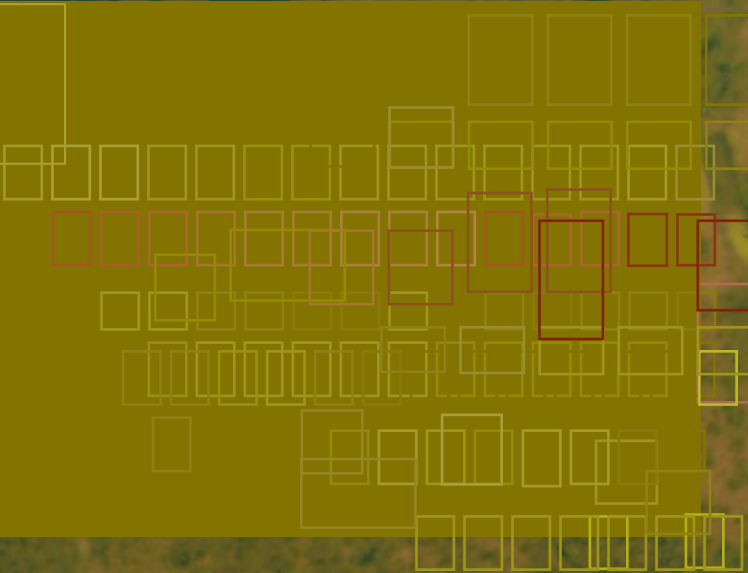


# Community Partnerships in Integrated Sustainable Waste Management

Tools for Decision-makers  
Experiences from the Urban Waste Expertise Programme  
(1995-2001)

Authors:  
Maria Muller  
Lane Hoffman

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**Cover photos:**

Photo 1: Sorting out collected paper waste, the Philippines. *Photo: @WASTE, Dan Lapid*

Photo 2: Participants at a workshop, Bangalore - India. *Photo: @WASTE, Arnold van de Klundert*

Photo 3: Waste collectors' campaign to educate the people to keep their own environment clean, Peru. *Photo: @WASTE, IPES*

Community Partnerships in Integrated Sustainable Waste Management is part of a set of five Tools for Decision-makers. The other four documents cover:

- Integrated Sustainable Waste Management - the Concept
- Micro- and Small Enterprises in Integrated Sustainable Waste Management
- The Organic Waste Flow in Integrated Sustainable Waste Management
- Financial and Economic Issues in Integrated Sustainable Waste Management

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Gouda, May 2001

Arnold van de Klundert  
UWEP Programme director



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# Chapter 1. Introduction

## 1.1 The readers of this document

This document is designed to provide decision-makers with information on involving communities as partners in an integrated sustainable waste management strategy and programme. In it we aim to illustrate:

- How communities can be mobilised to take a larger role in service provision by adopting a participatory approach.
- How the local authority can provide support to communities to become reliable and effective service providers.
- The kinds of tools that are available to assess initiatives and proposals initiated by representatives from civil society or by municipal staff, and how to use them in partnership with communities.

This document is addressed to the politicians and the professionals who occupy senior positions of responsibility in city management, who have responsibility for decision-making on a range of waste issues, including waste collection and disposal; health; health education; community development and support for small, micro and community-based enterprises.

The subject area 'community partnerships in waste management' is related to some other key words: public participation, capacity building and empowerment. It provides a channel for information exchange between the local authority and the community. It also enables the community to influence the waste management planning process under the leadership of the local authority. Participation will build communication and leadership capacities in community members.

## 1.2 What is in this document

After this introductory chapter, Chapter 2 presents the stakeholders in waste management in the local community. Chapter 3 discusses raising awareness and sensitivity in the community, and broadening the understanding and appreciation of the importance of waste management. Chapter 4 is the conclusion, and the final section presents additional resources for information and ideas.

## 1.3 Changing responsibilities in urban waste management

Traditionally and ideally the local authority has been the sole provider of waste services. It provided all the elements of the waste management system: the physical and intellectual infrastructure; the institutional framework and the daily operation of services. This ideal functions imperfectly in the South, where the local authority often can only provide waste services to a relatively small section of the central business and residential area, while lower and middle class neighbourhoods and areas outside of the centre have few or no services. In the South, structural adjustment and fiscal discipline are imposing strict limits on government expenditure, which restricts the expansion of conventional services to these areas. At the same time that the expanding urban population is demanding traditional and new services, the local authorities are less and less able to provide them.

The local authorities are generally aware of the health risks and environmental problems caused by inadequate waste management. At the same time they are looking for new ways to share their traditional responsibilities in these areas with neighbourhood communities, micro- and small enterprises (MSEs), large private entrepreneurs and industries, hospitals, schools and other stakeholders. Increasingly, the local authority seeks to mobilise the human and financial resources of these actors in order to develop an adequate system of waste services.

## 1.4 Benefits of partnerships with community actors

We advocate a participatory approach to actors who have a stake in local waste management, as experience from the Urban Waste Expertise Programme and from related development fields has shown that an intensive process of consultation with the actors



concerned is likely to result in sustainable, widely supported activities. Partnerships with community actors have a number of specific benefits, some of which are listed below:

- A combination of different types of waste services is more likely to meet the (variation in) demands of the residents.
- Resources of households and the community are mobilised, through taking responsibility for environmental cleanliness and payment of waste collection fees.
- Jobs and income opportunities in the small-scale economy of waste collection and recycling are promoted.
- Residents increase their appreciation for the local authority that responds adequately to their demands for waste services
- Residents acquire more understanding of the issues and capacity to organise waste services for themselves.

Creating partnerships is a process that gradually draws in more residents and more organisations in promoting the various aspects of waste management and urban sanitation on the local level. The partnership process makes the urban waste system both more effective - meeting the needs of the residents more directly - and more sustainable.



**Photo 1. Children, women and men are responsible for cleanliness in and around the house (Mali)**

*Photo: ©WASTE, Maria Muller*

### **Community-based actors contribute to local waste management in pilot recycling programme in Quito, Ecuador**

In 1993, the municipality of Quito, Ecuador, initiated a pilot project with the objective to extend waste collection to several lower and middle-class neighbourhoods which lacked services. This was done by micro-enterprises that provided separate collection on different days of organic, recyclable and non-recyclable waste. The task of the households was to separate their waste according to these categories and to offer it on the appropriate day. The revenues from the sale of recyclable materials went to funds to support neighbourhood improvements.

Neighbourhood committees identified residents to organise the micro-enterprises and in each neighbourhood community-based organisations worked together with the micro-enterprises to implement the project. These neighbourhood committees decided on how to use the money obtained from the sale of recyclables. Although men formed the majority of these neighbourhood committees and held the more powerful positions, women carried out most of the committees' daily activities and maintained the relationship between the committee and the municipality.

The recycling programme was a great success right from the start. In particular, the neighbourhood associations were very positive since they had been fighting for waste collection services for years. They not only motivated the community members to participate but also initiated activities to clean the neighbourhood. The activities to involve the community were focused and successful in the short term.

The programme was not sustainable, however, since the organisers ignored political realities and did not build in an institutional development strategy. As a result, in the second year of project implementation, interest in recycling began to diminish. Although some households continued separation, waste was often not as carefully separated as the programme required and waste collectors themselves had to sort out the waste. Despite the fact that waste collectors reminded the households of programme guidelines, the situation did not improve; households returned to pre-programme practices and disposed of their waste themselves.

Sustainability was undermined by gossip about factions in the neighbourhood associations and rumours that people who did not separate their waste were supporters of neighbourhood leaders who were not or no longer involved in the project or community based organisation. Finally, some households questioned whether the funds were managed properly and there were complaints about the frequency of waste collection (Hernández et al., 1999: 148).

*Source: O. Hernandez, B. Rawlins and R. Schwartz (1999), "Voluntary recycling in Quito: Factors associated with participation in a pilot programme" in: Environment and Urbanization: Sustainable Cities Revisited II, Vol. 11 no. 2, pp. 145-159.*

*(Summarised by Laura Moningka, "Community Participation in Solid Waste Management: Factors favouring the sustainability of community participation". UWEP Occasional Paper, 2000)*

This project shows both the importance of awareness-raising campaigns and a two-way communication channel on the one hand, and the necessity for a longer-term institutionalisation strategy on the other. Short-term success and long-term attrition is typical of many recycling programmes, which in effect become victims of their own success. The organisers are so focused on involving the community in the start-up that they do not consider which of the six ISWM aspects they might be neglecting. In the end, sustainability suffers.

Because there was no focus on community management institutions, participants questioned the representativeness and legitimacy of the community-based organisations and local leaders. These residents became suspicious about what happened with the money generated from recyclables, while others who did not see themselves as stakeholders in the effort were reluctant to give waste with monetary value to collectors. Some people did not participate anymore because of factions in the neighbourhood organisations or because they supported other leaders than those involved in the project.



**Photo 2. Middlemen buy recyclable materials from itinerant waste buyers (Pakistan).**

*Photo: ©WASTE, Arnold van de Klundert*

### **1.5 Introducing Integrated Sustainable Waste Management (ISWM)**

Integrated Sustainable Waste Management (ISWM) is the core concept in understanding the principles of adequate waste management, as presented in this document.

ISWM is used in several ways in the Urban Waste Expertise Programme and in this document:

- As an analytic framework useful in assessments, feasibility studies and the like
- As a normative outline for planning processes
- As a set of variable activities (ranging from planning to training, to workshops for joint policy development, rules and regulations, implementation) to be identified under local conditions, through which the various actors in waste management start to cooperate, to improve their interactions for a better waste management.

ISWM is also associated with efforts to:

- Optimise waste reduction and recycling
- To improve the social effectiveness and reach of waste management programmes, including employment and working conditions
- To mitigate negative environmental effects of waste generation and handling, including pollution, exhaustion of natural resources and the like

Figure 1 shows ISWM in graphic form. The core principles are presented in the box following the figure.



**Figure 1. Integrated Sustainable Waste Management**

ISWM promotes the idea that waste management is a complex multi-dimensional problem that cannot be solved when solutions are focused only on the technical performance problem of collection and (safe) disposal of urban waste. ISWM focuses on three dimensions of urban waste systems.

The first dimension is the involvement and empowerment of stakeholders in the planning and execution of the waste management process; the second dimension consists of the eight waste system elements, including collection, reuse, disposal, recycling and the like.

**Principles of Integrated Sustainable Waste Management**

The concept of Integrated Sustainable Waste Management (ISWM) is based on:

- Equity: all citizens are entitled to an appropriate waste management system for environmental health reasons.
- Effectiveness: the waste management model applied will lead to the safe removal of all waste.
- Efficiency: waste management is accomplished using an optimal mix of resources, which is appropriate to the local context.

ISWM stresses the need for sustainability in waste management. The aspects, which comprise the third dimension, include:

1. Technical aspect
2. Environmental aspect
3. Financial / Economic aspect
4. Socio-cultural aspect
5. Institutional aspect
6. Policy / Legal / Political

## 1.6 A note on terminology

The term '**community**' can be used to refer to the whole population of a city; a section of the city; or an ethnic or social group within the city. This document uses the term 'community' in referring to a limited section of the city. This document takes the point of view that a local authority can make partnership arrangements with many communities.

The term 'community' is ambiguous along other dimensions as well and can refer to:

- A neighbourhood: this refers to the physical area, with its geographical boundaries, whose residents share common concerns such as traffic congestion, flooding or uncollected garbage.
- An institutional unit: this refers to the lowest administrative unit that is part of the system of government, with legally defined jurisdiction, government departments and representatives. This may be a 'ward' (India), a 'barangay' (the Philippines), a 'quartier' (Mali) or 'barrio' (Honduras).
- A social community. This refers to the group of residents who identify themselves as a community, because of the social or cultural relationships among them. These social relationships form the basis for organisation and leadership in that community.

In practice, urban communities are often called 'neighbourhood communities', because of their combination of characteristics (bases for organisation and concerted action).

The boundaries between the three types of community do not always coincide. This is important because while most waste management planning activities focus on the municipality or institutional unit, experience in the Urban Waste Expertise Programme suggests that certain aspects of planning also need to address the neighbourhood or social community. This requires some flexibility so that institutional considerations do not force planners to deny the day-to-day realities of the geographical and social boundaries.

We use the term 'actors', 'waste actors' or 'stakeholders' almost interchangeably. 'Stakeholders' is used most formally, but all three terms refer to people and organisations (natural and legal persons) having an interest in good waste management, and participating in activities that make that possible, including enterprises, organisations, households and all others who are engaged in some waste activity. Stakeholders may generate waste, function as service providers or participate as state or local government departments, non-governmental organisations and other organisations concerned with certain aspects of waste management. Their interest in waste activities in the neighbourhood gives stakeholders a stake in improving local waste management.

The combined term 'waste management and urban sanitation' represents a translation of the French word 'assainissement' which is richer than just 'waste management'. It includes the management of solid waste, garbage from households in neighbourhoods, and the handling of liquid waste, excreta, wastewater, storm water, combining issues of personal and environmental health. It also includes activities related to cleaning and maintaining household compounds, streets and public places. We use the combined term 'urban sanitation' in particular in reference to the case study of Bamako, Mali, where project objectives and planning of activities were defined in these terms.



**Photo 3. The waste collector is a stakeholder who provides services. His pushcart has two compartments to transport materials separated at source by households (India).**

*Photo: ©WASTE, Esha Shah*

Throughout this document, the term neighbourhood community is used to denote an active political and social unit comprised of many stakeholders, each with both a particular and joint interest in waste management. A neighbourhood community can contribute resources for waste management, in terms of knowledge, financial contributions and organisational matters. Coordination of these resources takes place, first, on neighbourhood level, and, secondly, on city-wide level with other actors, communities and the local authority. The local authority has an important role in mobilising and coordinating these community resources. If the local authority undermines these resources by inappropriate action, they will fail to contribute to city-wide waste management.

## Chapter 2. Partnerships with Community Actors

This chapter presents the main stakeholders in a residential neighbourhood, where households form the majority of waste service users. Neighbourhoods with a large number of industrial or commercial establishments or with offices have, of course, a different combination of stakeholders in waste management.

### 2.1 ISWM analysis of waste management stakeholders in the local community

From the Integrated Sustainable Waste Management perspective, all stakeholders play a role in all neighbourhood communities. Their distinctive activities all contribute to improving the waste situation in these neighbourhoods. In a typical city neighbourhood in the South, the principal stakeholders include:

1. Households
2. Community leaders and community-based organisations (CBOs)
3. Micro- and small enterprises (MSEs) who collect the waste for a service fee
4. Micro- and small enterprises who buy and sell recyclables, or who use waste-derived materials as the basis for small manufacturing
5. Waste pickers and itinerant waste buyers
6. The local authority

In the typical neighbourhood community in a city in the South, the main waste system elements are:

1. Waste generation in the house, separation at source (sometimes) and waste storage
2. Separation at source in the house
3. Re-use and recycling after primary recycling collection
4. Primary waste collection
5. Street sweeping
6. Secondary collection (defined as intermediate points for community disposal or for small-scale transfer from manual vehicles to motorised transport)
7. Transport from secondary collection
8. Disposal

Results come in the area of:

- Environmental cleanliness
- Organisation and coordination

Table 1 illustrates the specific variety of actors identified during a workshop of community leaders in Commune IV, Bamako - Mali. Other communities are likely to have some of the same, and some different stakeholders. These and other groups of actors will be discussed in more detail later in this document, together with some of the implications of gender analysis.

The workshop analysed the strength of each stakeholder group; in terms of what these organisations contribute to joint waste projects; their institutional responsibilities and powers; equipment and expertise resources; their opportunities of contacting and advising people etc.

Stakeholder/Actor	Strengths	Weaknesses
District authorities	Personnel and material resources	No public coordination
District Health Centres	Preventive health care programmes	Poor organisation of awareness programmes
Local Government Hygiene Department	Well trained personnel	Authoritarian behaviour, focused on repression
Public Hygiene Brigade	Good human resources	No material resources
Community Leaders	Position of trust	Not active enough
CBOs <sup>1</sup> and NGOs <sup>2</sup>	Public health campaigns	Insufficient coordination
Neighbourhood Health Committee	Intermediary roles between Health Centres and Population	Generated little appreciation for waste services by MSEs
Waste MSEs <sup>3</sup>	Provide the only waste services at neighbourhood level	Many problems in service provision
Organisations of concerned young men and women	Strong mobilisation for short, specific activities	Centred on practical problems, not on long term strategy
NGO	Support for waste MSEs	Short support actions, no long term strategy
Manufacturing workshops in the neighbourhood	Well-organised	Environmental pollution: untreated waste water
Local restaurants, bars	Meeting places in the neighbourhood	Non-payment for waste collection service
Local markets	Well-organised	Non-payment for waste collection: illegal waste dumping
Churches/mosques	Give advice about hygiene	Non-payment for waste collection: uncollected garbage
Schools	Local meeting places for young children	Are not a good example of waste management: uncollected garbage, bad toilets
Transport businesses	Well-organised	Air pollution

**Table 1. Actors in waste management and urban sanitation in Commune IV, Bamako**

*Source: adapted from UWEP documentation prepared by Cabinet d'Etudes Keita-Kala Saba, Bamako*

Next the participants analysed their weaknesses, including: poor coordination between actors; absence of a comprehensive vision and knowledge of waste management; problems of cost recovery; poverty of households and the negative impact of each actor on the environment.

The workshop is an example of Step 2 in the partnership process discussed in Section 2.6, the kind of thorough diagnosis of the situation that allows community leaders and professionals to plan their approach and set priorities for activities in the community.

<sup>1</sup> CBO= Community-based Organisation

<sup>2</sup> NGO= Non-governmental Organisation

<sup>3</sup> MSE= Micro or Small Enterprise



**Photo 4. One stakeholder: an owner of a shop selling recycled spare parts (Pakistan).**

*Photo: ©WASTE, Arnold van de Klundert*

## **2.2 Community-based Organisations (CBOs)**

One way of contacting the residents is through a second set of stakeholders: community-based organisations (CBOs). These organisations are usually motivated by values or ideals that involve improving the community and cleaning up the neighbourhood. The term ‘values-based enterprise’ is used to describe more entrepreneurial CBOs in the document in this series on Micro and Small Enterprises in Integrated Sustainable Waste Management. Their motivation for engaging in waste management may include:

- A desire for a clean environment for themselves and the community
- The wish to conserve natural resources in the urban environment
- A perceived need for work and income for poor people in their community, such as single women with children, old people, unemployed youth, waste pickers

A community-based organisation can be a critical partner in local waste management when:

- Its activities deal with subjects concerning the environment, health, education or community service.
- It has a clear internal communication structure and allocation of responsibilities.
- It has legitimate leaders who are recognised and respected in the community.

Examples of potential partners of community-based organisations:

- A community-wide development committee with specialised sub-committees for health, education or urban sanitation
- A coordinating committee of micro- and small enterprises, active in waste services
- An association of marketers
- Women's organisations
- Youth organisations
- A locally-based religious organisation
- A home-owners association



### **EXNORA (India)**

In some Indian cities, street-level community-based associations of some 75 to 100 local home-owners contract local waste pickers for waste collection and street cleaning. The associations collect payment of the households, pay the waste pickers, encourage refuse sorting at household level and engage in public education campaigns. These Civic EXNORAs collaborate in a city-wide forum in a particular city.

*Source: T.K. Ramkumar, Community initiatives in municipal solid waste management: case of EXNORA in India. EXNORA International, Madras, India; UMP/SDC, 1996*

A local authority may, in consultation with community leaders, use the following strategies to obtain the cooperation of community based organisations (CBOs):

- Select one CBO and its leaders to act as 'anchor' point for the project.
- Start a process of community-based issue analysis and during the process identify and make connections with CBOs, non-governmental organisations and social groups.
- Invite candidate organisations for meetings to give feedback on the issue analysis.
- Design means of communication to keep all CBOs, their leaders and members informed about project process.
- Establish formal agreements with the CBOs about their intensified participation in the waste management project.

### **MABIBO (Tanzania)**

MABIBO is a community-based organisation in Dar es Salaam. MABIBO is a values-based organisation motivated by environmental and social concerns. Their first objective is to clean up garbage in their own neighbourhood, which has middle and low-income households. The Management Committee mobilises residents to subscribe to the garbage collection service for a fee. The members collect garbage from door to door and take it to a transfer point in the neighbourhood. The Committee pays them a daily wage. When the municipality delays collection from the transfer point, the MABIBO Management Committee hires a truck to transport the waste to the final disposal site. But the cost of this secondary transport is really beyond the means of MABIBO.

Possible roles of community-based organisations in waste management are:

- As partners in the dialogue with the local authority
- As clients of waste services from the local authority
- As a platform for discussion and dissemination of new ideas
- As a force to mobilise members for concerted action in waste management
- As a representative or advocate to motivate households to subscribe to micro- and small enterprises for waste services
- As a supervisor and performance monitor for the effectiveness of waste services offered by micro- and small enterprises, the local authority and private sector

A community-based organisation is not a micro/small enterprise as it does not have the objective of making a profitable business. However, when it decides to carry out a waste service, it has to develop a business attitude and appropriate skills in order to calculate the costs and revenues of operating a regular waste service. In this sense a community-based organisation is similar to a values-based micro- or small enterprise.

EXNORA and MABIBO are both legally registered community-based organisations. The examples show differences between them in terms of internal organisation, the manner of engaging garbage collectors, cooperating with micro- and small enterprises, and involving residents in learning and caring about their immediate environment. The executive committees of both EXNORA and MABIBO are in control of the waste service, they collect charges and pay the workers. Yet, while EXNORA is an association of members who require waste collection, MABIBO is set up to provide that service to anybody who is prepared to pay. The EXNORA organisation gives service users more direct influence on the service than the MABIBO organisation.

### Neighbourhood Associations (Mali)

A meeting related to community-based issue analysis in Commune IV, Bamako-Mali, was held in the presence of community leaders, MSE leaders, local authority representatives, non-governmental organisations and the media. The idea emerged to establish community-based organisations for waste management and urban sanitation. Each neighbourhood would create its own association. The project team facilitated setting up a care-taker executive committee. The most senior community leader became honorary chairman and the most influential woman the president.

The associations formulated their statutes and internal regulations (required for formal registration) by making use of the community-based issue analysis. This was the source for formulating the objectives for waste management and urban sanitation that were most relevant for their own neighbourhood. The Executive Committees mobilised women and men residents to set up street-level committees, and they selected in turn representatives for Sector Committees. All these grass-roots committees together form the members of the Association for waste management and urban sanitation of the neighbourhood.

The activities of the associations are:

- To create consensus on norms and sanctions regarding environmental cleanliness, such as: only use the official disposal sites, subscribe to a micro- or small enterprise for garbage collection, maintain and repair your soak pit, clean gutters in front of your house, avoid pools of standing water.
- To coordinate with the micro- and small enterprises and to supervise their performance.
- To promote cultural interest in waste management and urban sanitation.
- To organise full participation in clean-up campaigns.
- To prepare plans and project proposals for funding facilities for further sanitation and waste activities.

The presidents of the associations hold regular meetings as well as training sessions together with local NGOs and representatives of the local authority.

*Source: UWEP Bamako pilot project documentation.*

Both EXNORA and MABIBO employ waste collectors on a daily basis. In Bamako the enterprises are independent entities and aim at making the whole community aware and responsible for its own environmental activities, through the mobilisation of 'grass roots' committees. Their members, who are each others' neighbours, observe and admonish each other about good practices in environmental cleanliness. They also monitor and pay the micro- and small enterprises for garbage collection. The streets are a place of social learning.



**Photo 5. Street sweepers in Guatemala city: actors in waste management**

*Photo: ©WASTE, Jeroen IJgosse*

## 2.3 Households

Households form the largest category of stakeholders in waste management. They have a multi-faceted relationship to waste management activities: as waste generators, waste service clients; receivers of information and participants in mobilisation for waste management and urban sanitation.

Households prepare their garbage in such a way that it can be collected by micro- and small enterprises, the local authority or a private company, or by waste pickers, or bought by itinerant buyers.

Important roles of households in waste management are:

- Store garbage properly in the house or compound
- Engage in separation at source when appropriate
- Set out the garbage at the agreed time and place
- Use official disposal sites when there is no door-to-door collection
- Encourage more re-use of waste materials within the household
- Maintain private waste facilities
- Participate with neighbours in activities to keep the environment clean

To support households in playing their expected roles, it is important to recognise that within a neighbourhood community, households may belong to a variety of social or religious groups, and so may vary in their:

- Cultural/religious beliefs and practices
- Major occupations
- Income and expenditure patterns
- Access to community and infrastructure services
- Gender and age

Such distinctions have practical consequences. For example:

- The garbage from vegetarian households has a different composition than that from meat-eating households. This is relevant for the re-use of organic waste in peri-urban agriculture.
- Households headed by women alone have less ability to mobilise resources for construction or repair of soak pits and the like.
- Households practising farming or holding animals in their compounds generate different garbage than high-income households generating waste from packaged foods. This is relevant for organising separation at source.
- Poorer households have a lower ability to pay for services than middle-income households. This affects the level of waste collection service and the type of waste facilities to be provided.
- Households living on steep slopes or far from conventional roads and sanitation facilities, require specially designed waste collection services operated in a way that suits their circumstances and demands (e.g. donkey carts or using baskets).

Within one neighbourhood these different types of households may co-exist. They make different demands on service provision and have different abilities to pay for services. Therefore, service provision must be differentiated in consultation with the residents and their representatives.

### **Community collection in Nagapura Ward, Bangalore - India**

In Nagapura Ward, Bangalore, a local non-governmental organisation has employed waste pickers to perform waste collection from households in a residentially mixed area. The households who subscribe to the service have a middle to high income. A committee of residents supervises the waste pickers and persuades residents to pay their fees.

In the middle of the same ward there is a slum area. The low-income households of that area have garbage with a high organic content. They are paid for their garbage by a private entrepreneur, who uses it for his composting enterprise. In the same neighbourhood, therefore, the waste collection service is differentiated to the needs and demands of the type of households.

## 2.4 Gender dimensions in waste management

Another distinction is to be made among household members. Women and men, children and old people, and servants have different rights and responsibilities in their households. This has implications for their relationship to waste. Consider, for example, the following questions:

- Who has the right to re-use or sell waste materials generated within the household (e.g. paper, tins and plastics)? Men or women? And who has that right among women, the senior wife or the servants?
- Who has the duty to clean up waste or to take it to the place for collection?
- Who has the responsibility for paying for services or for investing in equipment such as garbage bins or soak pits? Do women earn enough money to pay for this?
- Who has the authority to decide whether women are allowed to participate in community campaigns: can women decide for themselves or have their male relatives to give permission?

The answers to such questions have implications, which impact:

- The design of awareness raising and mobilisation programmes
- Choosing between door-to-door collection services or placing communal containers in public places
- Studies to determine willingness and ability to pay for services



**Photo 6. Female waste collectors bring solid waste to a container at a secondary collection point (La Paz - Bolivia)**

*Photo: ©WASTE, IPES*

The gender aspects of decision-making within households and within the community about the organisation of collection, re-use, recycling, disposal of waste cannot be ignored. In fact, when there are problems with service provision, a practical step is to talk with the women to understand the causes of the problems.

Following is a brief list of the kinds of programme and project problems, which may indicate a need for gender analysis of the situation and a gender-sensitive approach to solving it.

Symptom	Diagnosis and suggested approach
Waste quantity estimates prove too low - there is more waste than predicted.	The activities of the informal sector may not have been recorded and changes may have disrupted their functioning. Suggested approach is to use a broader definition of stakeholders and to solicit input from more parties, including women and men workers in the informal sector.
Waste quantity estimates prove too high - there is less waste than predicted.	Information may have been collected from one sex - probably men - when women have more accurate information.
Waste is improperly prepared.	Check who the information has been delivered to: it may be that one sex has received it but the other sex is expected to do the work.
Waste is set out at the wrong times.	First, check on information delivery. Second, ask women and men about their schedules. It may be that the collection schedule conflicts with personal activities, preventing cooperation even when people want to comply.
Waste is set out in the wrong places.	The designated set-out sites may be culturally inappropriate in general, or inappropriate for the gender or class who sets out the waste.
Source separation protocols are not observed.	Those involved in handling waste at home - mainly women - may not have been consulted about their habits and preferences. More likely, they have been involved in the process of analysing how and at what point in the disposal process to introduce a separation step. The suggested approach is to invite women in small groups to analyse the situation and suggest changes that come from them, not from outside.
Litter baskets are not used and there is a concentration of litter in unwanted places.	The community has perhaps not been consulted about their ideas for the kind of litter baskets to use, where to place litter baskets, how to service them and how to publicise them. Consult groups of teenagers, women and men about their ideas.
There is illegal dumping of a specific material or materials.	There may be no 'legal' option for dumping this material. Before introducing any kind of punitive approach, analyse the generation patterns for this material and identify the stakeholders who are responsible for generating and disposing of it. Then work with this group to create a legal 'disposal opportunity' and/or 'recycling opportunity', combined with a phase-in of enforcement and fines.
There is illegal dumping of unspecified materials.	Again, it is likely that the legal option is either too expensive, too inconvenient, inappropriate to the community, or otherwise indicative of something created without participation of the stakeholders. Suggested approach, as above, is first to analyse the generation patterns and especially whether the waste is 'gendered' or linked to some particular social or ethnic group and then to work first to create a 'legal disposal opportunity' or 'recycling opportunity', combined with a gradual phase-in of strict enforcement and high fines.
There are low payment rates for waste services, combined with official or unofficial attempts to 'opt out' of the waste system.	Explore the dynamics of level of service, willingness to pay and ability to pay to see if there is a gender problem with the decision-making process that produced the current system. If so, begin with single-sex groups to sort out service preferences and willingness to pay.
Low payment rates for waste services, combined with continued illegal disposal	The information and education campaigns do not address the priorities in waste management of the men and women. It is suggested to discuss the priorities in small neighbourhood clusters and let this determine these campaigns. Mobilise influential women and men to organise waste management through the channels most likely to reach different groups of women, men and children.

**Table 2. Trouble-shooting with gender analysis**

Source: Scheinberg, A. et al., *Gender and Waste*, UWEP Working Document 12, 1999.

## 2.5 Entrepreneurs in waste: micro and small enterprises

Entrepreneurs in waste are the third category of important actors in sustainable waste management in the local community. Their role is to provide differentiated services that the public sector fails to provide, because of limited resources, priority obligations or political pressure. They comprise all those individuals and micro and small enterprises and cooperatives who see profit in collecting, selling, buying and using waste materials. They are, for example, waste pickers, itinerant buyers, middle men (junk shop owners), micro/small enterprises who collect garbage for a fee, enterprises that recycle materials (plastic, paper, metal) and manufacture new products for sale. As the first successful small enterprise in Dar es Salaam said: "takataka ni mali" (waste is wealth).

We distinguish three types of micro- and small enterprises: Commodities-Based, Services-Based and Values-Based MSEs. Commodities-Based MSEs are part of the recycling business, they earn income by selling materials and products, which they have salvaged, produced or bought from someone else. Services-Based MSEs earn their income from removing waste, cleaning or renovating, that is, providing a service. Values-Based MSEs are formed with the primary goal to promote some form of social, cultural change or environmental protection. Their involvement in urban waste management is either to earn profit for their promotion activity or serves as a means to raise environmental awareness.

For further reading on the operation of micro- and small enterprises we refer the reader to the document on micro- and small enterprises in Integrated Sustainable Waste Management, another document in this series.

## 2.6 Steps in the partnership process

This section describes the six steps in enlisting a neighbourhood community as a partner in waste management. Each of these steps is a cluster of activities that start at a certain moment and reach a certain result.

### Steps in making partnerships with neighbourhood communities

- Step 1. The local authority decides to involve local communities in participatory planning of waste management services. The local authority starts a dialogue with influential representatives from a neighbourhood community.
- Step 2. Community leaders, supported by a facilitating agency (and sometimes by local experts), make an initial investigation to identify all actors who have a stake in waste management in that neighbourhood community and to assess their problems and resources.
- Step 3. The actors with the largest interest and stake in improving waste management in the neighbourhood are invited to join a formal stakeholder group.
- Step 4. A community-based issue analysis will be carried out by a facilitating agency (usually an NGO) under supervision of the stakeholder group, involving the community, service providers and stakeholders.
- Step 5. The stakeholder group, with consultants or local experts, prepares and implements a waste management action plan.
- Step 6. The local authority institutionalises the partnership process with communities and other partners.

### **Step 1. The local authority decides to involve local communities in participatory planning of waste management services. The local authority starts a dialogue with influential representatives from a neighbourhood community.**

A local authority, as it begins to think about waste management, should investigate the extent to which local communities and enterprises within its jurisdiction are already active in waste collection, recycling, re-use or disposal of waste. Sustainability will be enhanced by a decision to involve these actors directly in new activities for planning of waste management.

Who takes the initiative for such collaboration?

- Community representatives who are seeking enhanced primary or secondary waste collection services.
- Micro- and small enterprises that need more favourable legal, financial or operational conditions.
- The local authority who wants to coordinate the resources and political and social needs of its constituents.

### **No easy relationship between MSEs and local authority**

A paradoxical situation has existed in Bamako since the 1990s. The local authority, concerned about urban sanitation, had invited a non-governmental organisation to support the waste micro- and small enterprises in the locality. Consequently, new groups of young people established micro- or small enterprises, having prepared feasibility studies, secured funding and being highly motivated to start work. Yet, frequently, when such a new MSE asked the local authority permission to collect garbage in a particular neighbourhood, the local authority ignored the request or refused permission.

Further, the Authorities refused to discuss financial and operational issues with the enterprises, partly because of governmental institutional regulations, and partly because of lack of understanding of the working conditions of these entities. The formation of a national coordination council of waste-MSEs should have helped, but in practice did not.

*Source: "Empowerment of residents for improved urban waste management" by Dr Modibo Keita, Paper prepared for Collaborative Working Group conference in Manila, 2000*

What are the key objectives for a local authority to involve these actors as partners in the planning of waste management?

- To create a shared community vision
- To identify and prioritise key issues, facilitating immediate measures to alleviate urgent problems
- To support community-based analysis of local issues and community ownership of proposed solutions
- To develop creative action plans for addressing key issues, drawing from lessons learned and experiences of best practices and innovations of diverse local groups
- To mobilise community-wide resources to meet waste management service needs

### **Waste Management Committee in Bauan, the Philippines**

A waste management committee was established in Bauan, the Philippines, with representatives from waste buyers (junk shop owners) and community leaders as members. At first the Mayor declined from becoming the committee chairman, as he considered the municipality to have sole responsibility for waste management. It took several months of meetings and discussions to convince the Mayor to accept the chairmanship. When he finally did agree, it was a major step in a concerted effort to improve collection and recycling of waste.

*Source: UWEP Batangas Bay pilot project documentation*

The community representatives use existing social and political contacts to gain:

- 1) Attention for their demands regarding waste services
- 2) Support for the initiatives they have already taken

### **Separate waste collection in Bangalore**

The authorities allocate land for composting In Nagapura Ward, Bangalore, separate waste collection (organic/inorganic) was initiated by the Ward Councillor, a CBO and an NGO. To make separation at source worthwhile, compost making was proposed. The Councillor and the NGO approached the Bangalore City Council to request a piece of land for this activity. After many meetings over a period of several months, the BCC allocated land in a nearby public park. It thereby facilitated separate waste collection in the ward.

*Source: UWEP Bangalore pilot project documentation.*

It requires concerted effort to develop dialogue and cooperation between actors. Further, some local authority departments may be willing and able to cooperate with community actors and micro- and small enterprises, while other departments may not be able to do so. In the long run, if the local authorities resist community involvement, communities may enter politics in order to get access to the decision-making process.

### **Involving local authorities by the community**

In Bamako, Mali, community leaders and MSE owners regularly invited local authority representatives (Councillors, Heads of department of public hygiene and waste management) and kept them informed about progress in the community-based waste management and urban sanitation project. The local authority's attitude was rather ambivalent for about two years, after which the local authority's cooperation with the community became more intensive. They participated in awareness raising and clean up campaigns. Yet the initial request of the micro- and small enterprises, to raise the garbage collection fee to be paid by customers, was still not granted by the municipality. This made the financial viability of the enterprises very precarious. This situation caused sufficient frustration that two MSE representatives ran for City Council in their communes and won. Only then were they able to get sufficient attention from the municipal authorities.

*Source: UWEP Bamako pilot project documentation.*

### **Step 2. Community leaders, supported by a facilitating agency (and sometimes by local experts), make an initial investigation to identify all actors who have a stake in waste management in that neighbourhood community and to assess their problems and resources.**

It is advisable to ask an NGO or local expert to facilitate the process of identifying local stakeholders and engaging them in discussions about the issues. This is also the first step in the **baseline assessment**, which is preparatory to the planning process described in the document on Integrated Sustainable Waste Management, also in this series.

Identifying and engaging stakeholders opens the process at the beginning. While it reduces the risks that some groups will feel excluded and therefore resist any changes.

### **Step 3. The actors with the largest interest and stake in improving waste management in the neighbourhood are invited to join a formal stakeholder group.**

This community stakeholder group, often referred to as a 'stakeholder platform', will guide the development of improved services in the community and ensure feedback with the groups they represent. Community leaders, representatives from the local authority, women leaders and MSE representatives form the nucleus of this stakeholder group. The group can be expanded later, as more groups show an interest in it. The stakeholder platform will continually broaden its links with other interested groups throughout the city.



**Photo 7. Participants at a workshop, Bangalore - India.**  
*Photo: ©WASTE, Arnold van de Klundert*

The first task of the community stakeholder platform is to negotiate a common vision about what they want to achieve for their own neighbourhood community. It takes some time to develop this vision, as each stakeholder will need to discuss it with his or her own constituency before they can make a formal decision. Sometimes it is easier to get the group to agree on **criteria** that the vision will meet, as a first step. When they have learned to know and trust each other, to move to the step of negotiating a common vision.

The stakeholder platform formulates criteria and articulates its goals, starting from the immediate demand for improved waste services in the neighbourhood. Goals might include:

- To create healthy living conditions in the community
- To enhance composting to produce manure for urban agriculture
- To increase employment and income opportunities for the unemployed
- To establish an effective, equitable, efficient, integrated and sustainable waste system



The stakeholder group will then work among themselves, with the local authority and with experts, consultants and non-governmental organisations to **develop a strategy** for the process of planning to improve waste services. They will take into consideration their shared criteria for an acceptable system, their vision and goals, the range of participation and cost-sharing that the residents are prepared and able to commit to, and the potential support available from the local authority's budget and other sources of support, plus contributions of time or money from other organisations, such as NGOs, schools, professional organisations, labour unions, and the like.

Another major task of the community stakeholder group is to **inform the public** that the local authority, community leaders and local micro- and small enterprises have joined hands to improve waste services in this neighbourhood and to ask for their cooperation. Posters and a series of public meetings can assist in raising general awareness about waste and environmental health and to familiarise the public with the expectations for their participation.

The stakeholder group will also announce the community-based issue analysis as the next step in this process of service improvement.

#### **Representation of stakeholders in Bamako**

Commune IV, Bamako, has two representative bodies: the Committee of Chiefs, representing 8 quartiers and the coordinating committee for urban sanitation, representing the six small waste enterprises, municipal departments and a few NGOs. These committees are interlinked and form the stakeholder platform for the waste management project. Together they developed a vision and structure for the project, using the logical framework analysis method. Together they selected a project execution team that represented all major actors. This took several months of intensive consultation, whereby the distinction between socio-cultural groups, institutional boundaries, gender representation, the interests of the micro- and small enterprises and easy communication with community leaders were taken into account.

*Source: UWEP Bamako pilot project documentation*

#### **Step 4. A community-based issue analysis will be carried out by an expert agency (NGO or government office) under supervision of the stakeholder group, involving the community, service providers and stakeholders.**

The ISWM framework serves as the blueprint for an issue analysis, which covers all six ISWM aspects: socio-cultural, economic-financial, organisational and institutional, environmental, economic and technical-performance perspectives. The purpose of the issue analysis is to supplement collected data and information, and to create interest and motivation among the people to mobilise their own resources for improving waste management. Some of these studies will be carried out by professionals, some by NGOs, some by academics or activists, and some by professionals and residents together. A comprehensive community-based issue analysis process uses both participant assessment and technical assessment methods in parallel to achieve a consensus analysis of key issues (cf. LA 21, Planning Guide, Chapter 3).

The community-based issue analysis has several advantages, among which:

- Focusing waste management planning on the residents' recognised interests, needs and preferences
- Mobilisation of the community's interests and resources
- Informing residents about the technical, financial and institutional aspects of waste management by engaging them in the collection and analysis of data
- Preventing uncritical and sole reliance upon the assessments of (often external) experts
- Creating a well-informed constituency of residents to work for sustainable waste management

The outcome of a joint community-based issue analysis is a strong final analysis as expert opinion and popular knowledge are checked against each other; a shared understanding among the stakeholders of the key issues involved and the ability to make informed choices in preparing a waste management plan.

#### **Subjects for an issue analysis**

Baseline studies using both technical and participatory methods can be done on the following subjects:

- Characterisation and amount of waste generated

- Analysis of actors/stakeholders in waste collection and recycling
- The operation of micro- and small enterprises, waste pickers and itinerant buyers
- Availability of waste infrastructure (organisational, facilities)
- Equipment and technologies used
- History of the community (e.g. population, government services, land use)
- Roles, habits and attitudes of women and men in waste activities
- Gender dimensions in community organisation
- Social networks in the community and links to outside social organisations
- Resources in the community
- Organisational structure in the community (e.g. community-based organisations, cooperatives, non-governmental organisations, formal groups, religious/cultural and political, educational and health organisations)
- Ability and willingness of residents to pay for waste services

It is useful to do the issue analysis with women and men separately. Since women have particular and often determining roles in waste management, they have distinctive and practical knowledge about things like environmental resources, disposal facilities, distribution of responsibilities in the community. But they may be reluctant to speak up in front of their fathers, brothers or husbands, and even less likely to participate in front of male strangers. Children too have specific, practical knowledge.

For example, as a result of social mapping of community facilities (Bamako), men consistently listed more water taps and more storm water drains than women. The reason: women refused to list facilities which were not functioning - and thus did not exist for them in reality. Women, on the other hand, listed more roads than men, including those leading to schools, markets and health centres.

These baseline studies can focus on the specific issues raised by the common vision formulated by the stakeholder group (see Step 3).

#### **Institutional support for proper waste disposal**

When the stakeholder group envisions the use of organic waste materials for composting so as to retain valuable natural resources for agriculture, this affects the base line questions. The waste characterisation study will ask questions such as: what is the total amount of organic waste generated; what are the components of organic waste (bones, kitchen left-overs, human and animal faeces, garden waste); which institutions (markets, restaurants, households) generate such an amount of organic waste that separate garbage collection becomes economically and socially worthwhile; seasonal variations in organic waste generation. Questions will also be asked about social/cultural variations (e.g. religious groups with a vegetarian diet; high status consumption patterns); the habits and facilities required in households to do separation at source.

Generally, the issue analysis process has four steps (LA 21 Planning Guide, Chapter 3, Checklist, p. 54):

#### **The issue analysis process in a community**

- Decide what level of participation will be facilitated in the issue analysis process - stakeholder representation or direct participation?
- Determine what target communities and target groups will be recruited to participate in the process.
- Inform the target communities and groups about the issue analysis process.

Identify the issues to be analysed

- With the target communities/groups, decide what specific issues will be analysed.

Implement complementary participant and technical assessments of key issues

- Select methods and tools for the participant assessment of the chosen issues.
- Select methods and tools for the technical assessment of the chosen issues.
- Modify the selected technical assessment methods to permit stakeholder involvement in the technical assessment exercise.
- Review assessment methods to ensure that they support the analysis of systemic problems.
- Establish baseline data on key conditions.

Complete the issue analysis

- Present the findings of technical assessments to the issue analysis participants before the conclusion of the participant assessment exercises.
- Identify any issues that require further assessment.
- Identify any proposals or options for action that should be considered in the action planning process.
- Prepare the final issue analysis report.



**Photo 8. Project team visits a community leader to discuss the involvement of the community in waste management (Bamako - Mali).**

*Photo: ©WASTE, Maria Muller*

#### **Steps in the Action Research project in Commune IV, Bamako**

1. Discuss with the community leaders how to organise the investigations and agree on a work schedule that the leaders will communicate to the population.
2. Hold public meetings.
3. Collect basic information through interviews and group meetings with residents.
4. Organise further formal and informal interviews to raise additional issues.
5. Review and feed back discussion in the action research team.
6. Compile and analyse information and data.
7. Prepare a synthesis report.
8. Agree on time and place to give feed back to the leaders of the whole community.
9. Invite representatives of local authority departments and resource persons.
10. Confirm holding the workshop with the community leaders.
11. Hold the feed back workshop with leaders and invited representatives.
12. Agree with the neighbourhood leaders to have a public feed back for residents.
13. Confirm holding the workshop with the community leaders.
14. During the workshop, encourage the residents to make observations and amendments.
15. Create consensus in the public meetings on the major actions to take and on a preliminary time schedule.

*Source: UWEP documentation on a pilot project in Bamako; prepared by Cabinet d'Etudes Keita, Kala Saba*

**Step 5. The stakeholder group, with consultants or local experts, prepares and implements a waste management action plan.**

The community stakeholder group may be the one who prepares a waste management action plan based on the community-based issue analysis and in service to the common vision for waste management developed earlier (Step 3); the needs and preferences of service users and service providers; and the resources available. The involvement of a technical consultant or local expert is usually necessary for the local authority to take the plan seriously. Alternatively, the issue analysis can itself take place during and as part of the total ISWM planning process described in the ISWM document in this series.

The action plan may propose a development trajectory for the municipality, for the neighbourhood community or for the stakeholder platform. This includes specific short, middle- and long-term actions that promote achievement of the goals. A complete plan will have a timeline and organisational chart, indicating which actor is responsible for specific activities. It is necessary to:

- Distinguish the actors and the waste activities.
- Be clear about responsibilities of each of the actors.
- Include a time frame for achievements in the waste services.
- Plan essential supporting actions.

A complete action plan includes a resource inventory; goes beyond the inventory to identify additional resources and support activities that appear necessary; and proposes the means to obtain them. Money is needed, for example, for awareness raising, training, a financial and market analysis for recycled products or for determining affordable and acceptable waste collection fees. The Logical Framework Analysis is a helpful planning tool, which enables the identification of roles of all stakeholders in community-based service provision.

Usually the plan cannot become a reality until it has received official approval of the political authority that has jurisdiction. In most cities this is the municipal or city council. In order for this official approval to take place, the staff representatives of the local authority who have participated in the stakeholder group will have to take the message back to city hall and sell it to their bosses and departments. If the staff is willing to commit the local authority to certain contributions, such as transporting the collected waste to a final disposal site; or allowing public hygiene staff to participate in awareness raising campaigns, very often the political authorities will go along with the judgement. In any case, if the staff is embarrassed or reluctant, this will almost certainly prevent the plan from being formally adopted.

Some examples of planned activities and their indicators of achievement are presented in the following table.

Activities	Indicators
Campaign about separation at source	After 6 months, 30% of households separate waste at source in the manner specified by the campaign.
Mobilisation of subscribers of waste services	After 6 months, 50% of the households and 75% of restaurants and food stalls are paid-up subscribers to waste collection service.
Implementation of municipal waste management plan	At a specified date the local authority has constructed one neighbourhood transfer station and identified a site for a second one.

**Table 3. Examples of activities and indicators**



**Photo 9. Community meeting in Bamako, Mali**

*Photo: ©WASTE, Jaap Rijnsburger*

#### **Example of objectives, results, activities and indicators in pilot project in Bamako, Mali**

The stakeholder group in Commune IV, Bamako, had decided that the development objective was to improve public health through waste management and urban sanitation. And that the project objective was to achieve greater participation of the population in waste activities. One of the expected results was a cleaner environment. Activities to achieve this objective were 1) meetings to raise awareness; 2) monthly clean up campaigns; and 3) negative sanctions on the growing of tall crops in residential compounds. One of the indicators used was the reduction of incidences of sanitation-related diseases.

Indeed, after 3 months of implementing these activities, the Medical Officer of Health reported that the incidence of malaria, diarrhoea and snakebites had been measurably reduced. He sent an official letter of congratulation to the community leaders and the project team.

*Source: UWEP Bamako pilot project documentation*

#### **Step 6. The local authority institutionalises the participatory process with communities and other partners.**

Once positive experience with first experiments with community partnerships has been gained, political leaders at the local authority may decide to actively promote partnerships with many neighbourhood communities. At that point, the partnerships become broader and more significant in overall development processes.

- The local authority creates a city-wide stakeholder platform to coordinate and guide the overall planning effort. In general these partners will include: representatives of micro- and small enterprises; communities who use and are directly or indirectly affected by services; private sector companies; commodity dealers; local industries; municipal service departments and agencies; parties with a particular knowledge related to the service (e.g. NGOs, banking and micro-finance sector).
- A preliminary educational campaign is carried out to generate public interest and support.
- The local authority defines the terms of reference of the stakeholder platform. This includes a definition of the relationship of stakeholder planning with official waste management plans and statutory processes, as well as of the relationship between the stakeholder platform and elected municipal bodies. A model of these relationships is included in the Annex.

- The process of issue identification and setting of priorities requires setting up neighbourhood forums in many communities, public hearings and focus groups, which permit extensive participation by residents and other service users.
- The results of the city-wide consultation of communities and service providers are integrated into a city-wide Waste Management Action Plan.

### **The Swabhimana Platform in Bangalore, India**

Swabhimana is a movement launched in 1995 with the object of promoting people's participation in the planning, development and management of Bangalore City. Government and non-government agencies come together to solve the city's problems. Participants are Resident Associations, NGOs, business organisations and civic agencies like the Bangalore Development Authority and the Bangalore City Corporation (BCC).

The platform primarily aims at involvement of people to work for better neighbourhoods and as a consequence for a better city. It also focuses on processes and systematic change, as at the core of these efforts lies the belief that governance must be improved.

Swabhimana builds upon the linkages provided by NGOs who have built-in people oriented programmes. This helps build bridges between the government, residents groups and citizens more visibly and formally.

Regarding waste management, the platform is lobbying for a land fill, sites for neighbourhood composting projects, provision of information by the BCC to residents about garbage collection schedules, and is linking local community-based organisations, non-governmental organisations and waste pickers and a compost plant in a waste management system.

*Source: Swabhimana, Newsletter Vol. 1, 1995.*

### **Institutional support from the local authority**

Once the community is seen as a partner who can mobilise resources and collaborate with the municipality, municipal leaders will often make a considerable effort to respond to and support the stakeholders in community-based waste management. Some specific options open to local authority decision-makers to provide support and release these resources include:

- Recognise and legitimise the local expertise that each of the organisations can make available.
- Assess the comparative advantage of existing institutions as an institutional home for the development project.
- Determine municipal policy-making measures and support (e.g. supportive municipal ordinances; incentives; fines or punishments) which will be associated with cooperative or non-cooperative behaviour.
- Provide logistical support in the form of space, facilities, personnel and equipment.
- Provide training to municipal staff on integrated sustainable waste management; how to be responsive to local initiatives; how to adjust operational procedures etc.

### **Municipal support for community waste management**

In Cebu city, the Philippines, the municipality operates out waste collection, but has also taken legal measures and improved monitoring by issuing a city ordinance forbidding indiscriminate dumping in the neighbourhoods, under pressure of environmental non-governmental organisations. A platform association of environmental NGOs, the Baranguay Urban Poor Coordinating Council (BUPPC) has implemented awareness raising campaigns to disseminate the contents of this municipal ordinance. It has also set up monitoring teams to inspect the streets, identify households who do not respect the rules and report to the BUPPC about problems with waste management in the neighbourhood. They are recognised by the local ward government, which sends inspectors who fine trespasses of the municipal ordinance.

A model for a community partnership and division of tasks is described in the Annex.



# Chapter 3. Raising Awareness and Sensitivity in Urban Communities

## 3.1 Introduction

When a local authority wants to mobilise citizens' resources for waste management, it faces the challenge of creating understanding and appreciation among the population for an intensified approach to dealing with the waste problems that everybody is experiencing.

To get the message out, the local authority needs to communicate that the authorities themselves seek an integrated and sustainable approach to waste management, one that is effective, efficient and equitable. The general content of the information, education and communication activities should focus on recognition of the contribution of all actors, including households, micro- and small enterprises, waste pickers, private entrepreneurs, universities and engineers.

The local authorities can undertake a wide array of campaigns ranging from general awareness raising to more focused information and education and to sensitisation about specific social issues in waste management. Information, Education and Communication programmes work best when they are coordinated with actual planning and implementation of new approaches in waste management, since in many cases, especially in under-served communities, seeing is believing.

## 3.2 Awareness raising, information and education campaigns

**Awareness raising** -usually the first step in a city-wide waste campaign- is used to raise people's environmental consciousness and to stimulate peer solidarity. It seeks to introduce greater understanding of the negative effects of handling waste carelessly - on overall environmental conditions in the neighbourhood. A campaign makes people more aware that proper waste collection and disposal have a positive effect on public health.

Increased awareness also means appreciation for the micro- and small enterprises and waste pickers who are already engaged in waste and recyclables collection, sale, re-use and recycling. They require public and official support. These activities are positive from various points of view: public health, employment and income generation, saving on household expenditure and saving environmental resources.

**Education** is concerned with making people aware as individuals and as a community that there is a worthwhile contribution they can make to their community health and safety, through the use of new waste management practices and new ways of organisation, as well as aware of waste issues, risks and potentials. Educational campaigns are more generic and abstract than awareness raising, which focuses on practical individual action.

**Information campaigns** are the most practical of all, focusing on giving residents specific instructions on what to do, when, where, how and with whom. Informational actions tell residents the identity of the service providers, the location of their office if there are questions, the desired time, place and manner of setting out waste or recyclables, or important changes in service schedules. If when the Bangalore City Council decided to start door-to-door collection, it had remembered to inform the residents about it, the residents might have put out their garbage at the required time and place. Lack of pertinent instructional information led to frustrations on all sides.

When preparing Information, Education and Communication campaigns, the organisers should decide on 1) the goal of the message, that is, whether it is designed to raise awareness, educate the public or provide instructional information; (2) the content of the message to be conveyed; 3) the target group; 4) the timing for release of information, which has to be based on very good knowledge of cultural programming and an understanding of how long it takes for people to be ready to do something; 5) the stakeholders who are involved in the campaign, especially, those doing the actual outreach; and 6) the specific methods to be employed.



Goal of the message	Examples
Instructional information	<ul style="list-style-type: none"> <li>Getting people to use baskets for waste instead of plastic bags or announcing a new collection schedule.</li> </ul>
Awareness raising and promotion	<ul style="list-style-type: none"> <li>Promoting and stimulating households to subscribe to waste services and pay regularly; explaining about separation at source of garbage.</li> </ul>
Education	<ul style="list-style-type: none"> <li>Teaching ways of operating manufacturing workshops in a clean manner.</li> </ul>
Context of the message	<ul style="list-style-type: none"> <li>Inviting community members to participate in decision-making about waste activities.</li> </ul>
Target group	<ul style="list-style-type: none"> <li>The urban population at large, or a local community, schoolchildren or micro- and small enterprises etc.</li> </ul>
Timing	<ul style="list-style-type: none"> <li>Not during a festival when everyone goes away from home, not during planting or harvest season when everyone is exhausted. Timing can often be 'hooked' to the start-up of school terms or the beginning of the dry season, etc.</li> </ul>
Stakeholders	<ul style="list-style-type: none"> <li>A variety of organisations and opinion leaders can carry out the awareness raising: different departments or agencies of the municipality; community leaders, NGOs, schoolteachers.</li> </ul>
Specific methods	<ul style="list-style-type: none"> <li>Announcement by radio or posters; meetings with community leaders; announcements at sporting events; moving posters on buses or collection carts; frequent discussions in small groups of neighbours, women, youth, elders, churches, schools, talks, cultural events.</li> </ul>

**Table 4. Campaign issues exemplified.**

The impact of awareness campaigns can be improved if they succeed in mobilising all possible community resources:

- Via its social customs in scheduling meetings (at times convenient for women)
- Through cultural ideas and events (traditional dances, street theatre, puppet theatre, songs)
- In taking local behaviour into account for clean-up actions
- Using grass-roots scale of action
- Adjusting to economic and financial constraints of the actors

### 3.2.1 Stakeholders in raising awareness

*Political or social leaders* can play an important role in stimulating desired behaviour. The most powerful message is given when the leaders are committed to setting an example: depositing refuse in containers; cleansing public places; participating in community clean-ups; keeping the street in front of their dwellings clean and litter free; paying their collection bills on time and without complaint, etc. In Cebu city, the Philippines, local leaders pay visits to waste collectors and to volunteers who form the inspection committee for dump sites.

*Religious leaders* also can play an extremely important role in supporting the cleanliness campaigns by promoting these messages during their sermons in church or temples. In Laos, in municipal-organised city cleanup campaigns, monks promote the participation of the community during their sermons in the community pagodas.

The educational tasks of *schoolteachers* are also very important. Not only is it important to target the schoolchildren, but also awareness-raising must be targeted to the school-leavers and children who are unable to attend school. In Patan city, Nepal, it is the children who are charged with waking up their parents and the neighbourhood to the necessity of sanitary behaviour. In Campinas, Brazil, the involvement of children through the environmental education programmes at schools has proved to be a relevant factor in the success of the awareness programme. In Embu, Brazil, educational work with the teachers and schoolchildren includes puppet theatre, artisanal paper recycling and poster contests. An educational kit about waste and recycling is also used by the teachers in the classrooms.



**Photo 10. Waste collectors carry out awareness raising campaign to educate people in Lima to keep their environment clean (Peru).**

Photo: ©WASTE, IPES

Another important group in carrying out awareness raising are the waste collectors and street sweepers themselves.

- In Las Rosas, Argentina, in the municipally-organised separation at source campaign, the waste collectors educate the households and return anything misplaced in the bin to the household where the mistake was made.
- In Sao Paulo, Brazil, the waste collectors also played an important role in educating the households in the source separation campaign.

*Neighbours and street committees* create agreement among themselves about good practices in their homes and area. They admonish each other and develop understanding of the difficulties involved.

### **3.2.2 Recommendations for methods**

Modes of communication take traditional and cultural practices as well as modern means of communication into account: skits and oral messages, puppet shows, prayers and sermons by imams in the mosques or monks in the pagodas, demonstrations in the women's meeting places as well as the use of radio and television.

- In Belo Horizonte, Brazil, an annual waste pickers' carnival parade is held where the waste pickers create their costumes out of recycled waste materials.
- In Bangalore, India, professional performers put on street theatre in order to raise awareness among the town's citizens to the need for waste management and their participation in the household waste collection service.
- In Sao Paulo, Brazil, the publication of a monthly magazine, special radio and television programmes as well as samba groups are used to disseminate information about the municipality's source separation programme.

*Going from door to door* and paying visits in the neighbourhood have proven to also be effective means when used by voluntary community health workers, leaders or responsible local politicians or even students.

- In Karachi, volunteers and leaders jointly visited each household to demonstrate the use of dustbins that they distribute. The campaigns rapidly led to changes in behaviour.

- In Armstrong, Argentina, Eco-club members go door to door to help household residents understand the municipality's separation at source campaign, handing over lists of the organic and in-organic materials to be separated.
- In Sao Paulo, Brazil, house-to-house visits are often carried out by students, who help disseminate information and convince residents to participate in the separation at source programme.



**Photo 11. Meeting of an Eco-club involved in waste separation and composting, Argentina**

*Photo: ©WASTE, Inge Lardinois*

And mass meetings are usually most effective when there is a follow-up by door-to-door visits. In Tingloy, the Philippines, when the message was not getting across during mass meetings, community members of the municipal waste management council started going door to door to make residents aware of the need for environmental cleanliness.

Making people aware and giving them responsibilities can be encouraged by incentive measures: these can vary from competitions offering prizes or competitions with rewards for collection of recyclables, to festivals, as well as the use of the media and visits from authorities to present the cleanliness prize.

- In Patan city, Nepal, the Prime Minister awarded a prize to schoolchildren in a competition.
- In Bangalore, India, an environmental NGO held a poster contest for secondary schoolchildren for the picture promoting the theme of urban sanitation. The winning posters were duplicated and used in a city-wide cleanup campaign.
- In Angra dos Reis, Brazil, the municipality offers financial rewards to those city residents bringing in the largest amount of recyclables to the city exchange centres.

### **Case study of awareness raising**

In the four secondary towns of Laos, within the newly created municipal waste management department, special community sections have been established inside the municipal structure to plan, organise and coordinate the city-wide awareness raising campaigns, which are implemented in collaboration with several partners: the department of public and environmental health, the department of education, the mass organisations as the women's and youth movements, community-based organisations and non-governmental organisations, religious and community leaders as well as representatives of the media.

*Awareness raising methods include:*

- Clean up campaigns in schools, markets and other public places as well as in the neighbourhoods
- Cleaning of the drainage canals
- Presentations at schools
- Inclusion of waste management in school curricula at primary and secondary schools
- Schoolchildren involved in urban sanitation walks in their neighbourhoods
- School playwriting contests on the theme of urban sanitation
- Local TV station produced the best play on environmental sanitation on TV
- Radio song writing contests on the theme of environmental sanitation
- Neighbourhood group meetings for men and women
- Cleanliness campaigns are promoted by Buddhist monks in neighbourhood pagodas

*Source: Laos Secondary Towns Urban Development Project, "Awareness Raising Programme", ADB, December 1998, Vientiane, Laos*

### **3.3 Sensitivity campaigns**

Sensitivity and awareness campaigns are also very important in combating cultural taboos and prejudices about waste and those who work in, on and with it. Recycling in certain areas has a negative social image and the waste pickers often are tainted by association. Because waste is a 'free' resource, which the more established groups prefer to avoid, waste-related work is often relegated to the most marginalised people in society. A number of localities have had success with actions to shift people's bias against this type of marginalised groups and to raise their awareness of the environmental, health and economic importance of the work of waste pickers.

#### **Process of 'de-marginalising' and integrating the waste pickers**

In Belo Horizonte in Brazil, the municipality and other organisations carried out a series of measures and activities to integrate the waste pickers. This process of 'de-marginalisation' consists of:

- A religious organisation with support of a Catholic church project for urban homeless, organised the street waste pickers into the *Waste Pickers' Cooperative Asmare* with the objective of dignifying the work of the street waste pickers and guaranteeing better labour conditions and fewer health risks.

#### **Raising the image of street waste pickers in Belo Horizonte, Brazil**

In Belo Horizonte, Brazil, the street waste pickers can be singled out, being engaged in the informal collection of recycling materials in the city for more than 50 years, doing hard work under the sun and rain, risking themselves in traffic and working under minimum hygienic conditions. The treatment they received not only from the government but also from the population was of negligence and misconception, as they were stigmatised as marginals and vagrants and were not socially or professionally recognised. They used to collect their materials with manual carts and sorted the materials on the streets, sleeping next to the recyclables as they did not have a proper place for sorting and storage. Being seen as people who dirtied the city with their waste-collection activities, they were expelled from the streets in an attempt to 'clean up the streets', with no alternative being given to them by the municipality.

*Source: "Integrating Waste Pickers for Sustainable Recycling - Planning for Sustainable Waste Systems" by Sonia Maria Dias - Paper presented at the Collaborative Working Group conference, Manila, 2000.*

- The Municipality of Belo Horizonte and its Waste Management department initiated a project as a way to bind environmental and social concerns to combat environmental degradation in the city centre and coincidentally, the social exclusion of the waste pickers. The project consisted of the promotion of a recycling scheme as an income-generating factor to benefit this social group.



**Photo 12. Waste pickers at a dumpsite in Peru**

*Photo: ©WASTE, Inge Lardinois*

- The municipality introduced a new waste management model wherein waste selection, separation at source and recycling were key elements.
- The municipality signed a contract with the waste pickers' cooperative, Asmare, for the collection and separation of recyclables and provided them with a sorting warehouse.
- The municipality created a Social Mobilisation Sector comprised of a multidisciplinary team responsible for environmental education, awareness raising and mobilisation of the local community. It is also their role to provide permanent support to institutionally strengthen the waste pickers' institutional and operational capabilities for selective waste collection.
- The social mobilisation team conducted a mobilisation campaign on environmental education and sensitisation campaign to bring about a positive attitude towards waste pickers, encouraging people to deposit their recyclables in special city-wide containers and to encourage the city population to donate their recyclables to those they thought of previously as vagrants and marginals.
- Visits to schools, churches, public and private institutions with training sessions and entertaining activities were some of the awareness raising methods used, including a recycling choir and exhibitions of art made from recyclables.
- Visits of organised groups of schoolchildren and community groups to the recycling warehouses are encouraged as a way to bridge the gap between the population and the waste pickers.
- Regular training courses to schools, private enterprises, public institutions and other segments of the population carried out to raise people's consciousness on the environment and on the importance of the work developed by the waste pickers.

Other awareness raising methods included musical and theatrical performances and street theatre as well as:

- The annual Waste Pickers' Carnival Parade played a strategic role in raising people's awareness of the importance of the work done by waste pickers.

- Capacity-building and training courses provided to waste pickers to qualify for membership in the Asmare Cooperative on subjects as safety in traffic, waste management cycle, human relations and business management.
- School attendance was made a requirement for waste picking children.
- Training courses provided to waste picking and street children to learn carpentry using wood recycling.  
Cooperative members are entitled to medical benefits and cooperative profits finance health insurance for waste pickers and their families.

In this process the municipality recognised the economic importance of the street waste pickers and took steps towards establishing their credibility. It used a participatory approach and involved the waste pickers themselves in a stakeholder forum empowered to work on the development of alternatives. In addition, the municipality provided concrete alternatives and let them take ownership of the process.

Another successful example of improving the image of waste pickers is that of Porto Alegre, Brazil, where the municipality has taken steps to successfully integrate the waste pickers, who are members of a cooperative, into the municipal separation collection system. As in Belo Horizonte, the waste pickers' cooperative in Porto Alegre is backed by the Catholic church.



# Chapter 4. Conclusions

This toolkit on community partnerships rests on two basic principles. The first principle is that it takes at least two to form a partnership in waste management, the local authority and the community. Through reading this document decision-makers can learn something about the need for contributions from both partners to expand adequate waste management to ever more neighbourhood communities and create a healthy and environmentally sound city.

Each of these partners is a complex entity. The local authority, consisting of specialised departments and decision-making bodies, has a particularly important position, as it provides the institutional context in which such partnerships can operate successfully.

The community, as the other partner in waste management, is also a complex entity, being comprised of people, households, businesses and organisations. In this document the focus is on understanding the community and its major stakeholders and on identifying their roles in waste management. This document maintains that through information and awareness-raising, organisation, and coordination, a neighbourhood community can play satisfactory roles in waste management, as long as the local authority consistently provides a supportive context.

Integrated Sustainable Waste Management (ISWM) is the second principle that forms the basis for this document. This ISWM principle presents 1) an analytical framework for waste management planning; and 2) an ideal or normative situation that does not yet exist but can be promoted by taking the appropriate waste planning decisions. The community partnerships described above are an element of the ISWM framework, and the steps outlined here provide a kind of method for working with the first ISWM dimension, the stakeholders.

## 4.1 Organising stakeholder platforms

This document describes some of the major stakeholders in neighbourhood communities in relation to waste management: households, community-based organisations (CBOs) and micro- and small enterprises (MSEs). It points to characteristic variations among households (e.g. socio-economic and gender characteristics), among CBOs (e.g. communication structure, and legitimacy), and among MSEs (orientation towards services, production, or values), which influence their waste activities.

The roles of households in garbage storage and collection, recycling, re-use and disposal are critical, both as an expression of individual responsibility and as a form of concerted collective action to be undertaken together with neighbours and community groups. It belongs to the roles of CBOs to mobilise these households, to supervise performance by service providers, and to coordinate waste management activities with other stakeholders including the local authority. Additional stakeholders may be active in communities as waste generators, as waste service users, as initiators of awareness raising campaigns, as trainers in specific skills, or as parties with political interests. This comprises the undeniable and multi-faced reality of neighbourhood communities.

The local authority has a range of roles in this respect, including policy-making to legitimise and support the roles of communities and micro- and small enterprises; support for and participation in information and awareness raising campaigns; and providing reliable secondary collection and disposal facilities. It is something of a challenge for the local authority to adjust its operational procedures to reliable co-ordination with new partners.

Section 2.6 presents a step-by-step methodology that local authorities can follow when they move to create this partnership. By following these steps, the local stakeholder platform is carefully constituted with the aim of involving the whole community in integrated sustainable waste management. This platform then becomes a critical participant in the further process, taking on a range of responsibilities.

## 4.2 Creating a partnership

This document is intended to give senior government officials and politicians a frame of reference for assessing citizens' waste activities, which often fall outside the conventional frame of waste management, but are part of the new wisdom of civil society. This



document works to contribute to recognising the value of these activities for achieving integrated sustainable waste management, without underestimating the obstacles the citizens still face in this respect. We expect that senior decision-makers exercise their professional creativity to modify practices and procedures to boost the potential of communities.

The process of creating partnership in Integrated Sustainable Waste Management may start with one neighbourhood community, but will then expand to other communities, so that their local stakeholder platforms will communicate with each other, will integrate their campaigns, and coordinate their demands for recycling facilities, secondary services and disposal sites.

#### **4.3 Working in partnership to raise awareness**

The local authority and the stakeholder platform need to initiate new awareness raising activities whenever they want to inform the public about changes in waste practices or want to have an impact on waste behaviour. Chapter 3 presents several methods and make the point that these methods are most effective when several organisations coordinate their campaigns, and when they are able to follow up their messages with the means to engage in real action.

#### **4.4 New challenges**

The challenge that now faces local authorities - in partnership with neighbourhood communities - is to create sustainable models of urban waste services. Although there are many working micro-models, there is not yet a clear answer to the question "how should we manage our waste". In particular, the elements of recycling and waste prevention, which rely most heavily on household participation, are underdeveloped, and it is quite certain that community groups and existing and new stakeholders in waste recycling need to be part of the process of finding answers. Like involving communities, the key is, and will remain: engage them; talk with them; involve them; recognise their roles/contributions in the new evolving system; use their insights; take their advice but work on surpassing their limitations; and in general treat them like the valuable partners that they are and can be.

# Annex. Model for Community Partnership and Division of Tasks

## Partnership model between the local authority and stakeholders

### Municipality

- Municipality constitutes the Stakeholder group
- Constitutes an internal Interdepartmental Committee
- Establishes the Planning team which supports the stakeholders group

### Interdepartmental Committee

- Provides data and information
- Reports and liaises between Municipality and Stakeholder group
- Reviews action strategies and proposals
- Integrates stakeholder planning decisions with formal planning processes

### Stakeholder Group: Municipality, Service agencies, Non-governmental organisations, Community-based organisations, Universities, Resident associations, Residents, Under-represented groups

- Provides and oversees policy and management of planning process
- Reports and liaises with Working groups
- Reports and liaises with the Municipality
- Develops the community vision
- Consults with the public and establishes planning priorities
- Provides legitimisation, public profile and public accessibility
- Reviews action plans and integrates plans of different actors

### Planning Team

- Provides staff support to the Stakeholder Group
- Administers the planning effort
- Provides technical support
- Does problem-solving or 'trouble-shooting'
- Monitors and evaluates progress

### Working Groups: Service Providers, Service Users, Service Funders, Affected Parties

Planning Team	Implementation Groups	Monitoring & Evaluation Groups
<ul style="list-style-type: none"> <li>• Analyses problems and opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Negotiates implementation partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Develops indicators</li> </ul>
<ul style="list-style-type: none"> <li>• Proposes action, options and targets</li> </ul>	<ul style="list-style-type: none"> <li>• Mobilises resources</li> </ul>	<ul style="list-style-type: none"> <li>• Monitors impact and changing conditions</li> </ul>
<ul style="list-style-type: none"> <li>• Prepares draft action plans</li> </ul>	<ul style="list-style-type: none"> <li>• Institutes projects and programmes</li> </ul>	<ul style="list-style-type: none"> <li>• Analyses outcomes</li> </ul>
	<ul style="list-style-type: none"> <li>• Documents the activities</li> </ul>	<ul style="list-style-type: none"> <li>• Reports on findings</li> </ul>
<p><i>Source: Ruster, J. and I. Imperato (1999): Participation in upgrading and services for the urban poor: lessons from Latin-America (draft). Washington D.C.: The World Bank</i></p>		



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SIDA. (1996). *Guidelines for the application of Logical Framework Analysis in project cycle management*. Stockholm, Sweden: Methods and Institutional Development Unit, SIDA.

## Sources of further information

This section gives suggestions for further information on the subjects dealt with in this document. The sources are divided in relevant books, articles and websites.

## Related books

Anschütz, J. (1996). *Community-based solid waste management and water-supply projects: problems and solutions compared - A survey of the literature*. UWEP Working Document 2. Gouda, the Netherlands: WASTE.

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### **Related articles**

The journal *Environment and Urbanization*, which is published by IIED (website: [www.iied.org/eandu](http://www.iied.org/eandu)), often contains articles on community-based waste management. The issues that contain several highly relevant articles are the following: Volume 9, no. 1; Volume 11, no. 1 and no. 2.

### **Relevant websites**

[www.bestpractices.org](http://www.bestpractices.org)

This site contains the database of the Best Practice initiative, some of which are relevant. An access code is needed to read full descriptions.

[www.ehproject.org](http://www.ehproject.org)

A lot of publications, which can be downloaded. Under Applied studies and Activity reports there are project descriptions and analyses dealing mainly with health and sanitation.

[www.melissa.org](http://www.melissa.org)

This site covers the programme Managing the Environment Locally in Sub Saharan Africa. The entry Solid waste gives a description of the Collaborative Working Group initiative on solid waste management in low-income countries.

[www.undp.org](http://www.undp.org)

A lot of relevant publications, which can be downloaded. By searching on waste and community participation, project descriptions and general literature can be found.

[www.waste.nl](http://www.waste.nl)

The website of WASTE Advisers on urban environment and development, with many downloadable documents on waste related issues.

[www.worldbank.org](http://www.worldbank.org)

This is a very useful site, with a lot of options and topics (like participation, environment). It is also possible to download documents and project descriptions via 'publications' through 'on-line library' and then with 'search'. For concepts on participation and the World Bank Participation Sourcebook, go to 'topic & regions' and then to 'participation'. Appendix II of the Sourcebook gives an overview of working papers, like "Participation in water and sanitation" and "Designing community-based development".

[www.wsp.org](http://www.wsp.org)

This is the site of the Water & Sanitation Program (WSP) of the World Bank. It focuses on rural water supply and sanitation, participation & gender and urban environmental sanitation.

[www.wsscc.org/gesi/unicef](http://www.wsscc.org/gesi/unicef)

The site of the Water Supply & Sanitation Collaborative Council is not very relevant, but the link to the Global Environmental Sanitation Initiative does give some case studies.

*Community Partnerships in Integrated Sustainable Waste Management* focuses on the various roles community groups can play in urban waste management. It pays specific attention to the ways in which these stakeholders contribute to the sustainability of their city's waste management system.

This document is part of a set of five Tools for Decision-makers. The other four documents cover:

- Integrated Sustainable Waste Management - the Concept
- Micro- and Small Enterprises in Integrated Sustainable Waste Management
- Financial and Economic Issues in Integrated Sustainable Waste Management
- The Organic Waste Flow in Integrated Sustainable Waste Management

This series of *Tools for Decision-makers on Integrated Sustainable Waste Management* presents a unique approach to municipal waste management. Integrated Sustainable Waste Management is a concept, analytic framework and assessment that pays attention to aspects often neglected in conventional municipal waste management. Integrated Sustainable Waste Management covers institutional, social, environmental, technical and financial aspects, while emphasising the critical role that a variety of stakeholders - including waste pickers, women and micro- and small enterprises - play every day in waste management operations such as collection, treatment, reuse, recycling and prevention.

The Urban Waste Expertise Programme (1995-2001) was coordinated by WASTE and funded by the Netherlands Agency for International Cooperation (DGIS) of the Ministry of Foreign Affairs. In the UWEP programme a wide array of partner organisations collaborated. Most important among them were CAPS in the Philippines, CEK in Mali, IPES in Peru, ACEPESA in Costa Rica and Waste Wise in India.

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