BUILDING LINKS

For Improved Sanitation in Poor Urban Settlements

recommendations from research in Southern Africa

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Institute of Irrigation and Development Studies

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Recommendations from research in Southern Africa, 1st Edition

Printed in the United Kingdom
by the Institute of Irrigation and Development Studies

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Design/ Layout by Christos Georghiou www.georghiou.supanet.com

ISBN 85432-811-4

Dedication

This book is dedicated to the memory of Jim Howard (1926–2003) a great humanitarian, sanitary engineer and an inspiration to many.

About the Authors

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Acknowledgments

The University of Southampton, the Institute of Water and Sanitation Development and the Council for Scientific and Industrial Research (CSIR) are grateful to the Department for International Development (DFID) of the British Government for financial assistance with this research and publication.

The authors would like to thank the following for their valuable assistance and contributions in the preparation of this book:

Bryan Taylor	CSIR, South Africa
Louiza Duncker	CSIR, South Africa
Jerry Ndamba	IWSD, Zimbabwe
Nuku Marokane	CSIR, South Africa
Fungai Makoni	IWSD, Zimbabwe

The authors are highly indebted to the students of the following institutions who helped in the collection of field data:

Northern Technical College (Zambia)
The University of Zambia
The Copperbelt University (Zambia)
University of Durban-Westville (South Africa)
The University of Zimbabwe

In addition, the authors would like to express their gratitude to all those who provided useful information and comments on the text. In particular, thanks are due to Jonathan Parkinson, formerly with GHK International, and Pete Kolsky, of the World Bank Water and Sanitation Program, for their valuable comments on an earlier draft. The authors would also like to thank all those who attended the workshop at which the research findings were presented and discussed in August 2001, at the 27th WEDC Conference in Lusaka, Zambia.

Thanks are also due to the urban poor communities studied in Zambia, Zimbabwe and South Africa, without whose support this work could not have been successfully completed.

Nevertheless, the findings presented here are the responsibility of the authors alone and may not be in accordance with the policies of any of the above organisations, particularly those of the Department for International Development.

Foreword

It is widely recognised that a sanitary crisis exists in poor urban areas of the developing world. The health, welfare and livelihoods of huge numbers of people are at risk from diseases that are related to the inadequate disposal of excreta, refuse and wastewater. Sanitation is still not taken seriously enough in the environmental health sector; water supplies are improving but sanitary conditions, in which improvements are equally necessary, are lagging far behind. It is estimated that 40 percent of the world's population lack improved sanitation. In general, the technical aspects of sanitation are well understood, but the social and institutional aspects remain to be mastered.

This book results from a research study undertaken from 1998 to 2002, with funding from the United Kingdom Department for International Development (DFID) [Knowledge and Research Project, R7124]. The study was managed by the Institute of Irrigation and Development Studies at the University of Southampton, UK, incorporated the Institute of Water and Sanitation Development (IWSD) in Zimbabwe, and the Council for Scientific and Industrial Research (CSIR) in South Africa as partners, and involved intensive field studies in twelve poor, urban areas of three countries in southern Africa. The aim of the project was to improve links between urban sanitation agencies and the needs of poor communities by identifying key areas and recommending interventions that should make agencies more responsive to community needs. This book is the final output from the research and aims to summarise the data collected in three countries of southern Africa, the analysis of those data and the findings resulting from that analysis.

The study shows that the sanitation situation in urban informal settlements of Zambia, Zimbabwe and South Africa is dire and needs urgent attention. Residents of those areas recognise the problem and want an improvement in their situation, but lack the resources to bring this about. There is a serious lack of communication between sanitation agencies and local communities, and the households and individuals that comprise them, constrained by a wide range of factors. These are political, social, economic and institutional. Chapter 3 of this book aims to summarise the key issues and to make recommendations about how they might be tackled.

This book is aimed at policy-makers in international agencies, government departments in developing countries and non-governmental organisations, as well as all those working in such agencies who are struggling to promote the development of effective urban

sanitation. Whilst the information is based on research in southern Africa, the analysis includes a thorough review of experiences from elsewhere. We hope that those working in other parts of Africa, and in Asia and Latin America, will recognise that many of the issues discussed here are common to the situations which they have encountered, and be able to apply some of the lessons.

We, the implementers and manager of this research, and authors of this book, hope that by publishing our findings in this way, we shall make a contribution to improving the livelihoods of a large number of people living in unacceptable situations, both in southern Africa and throughout the developing world.

Martin Mulenga, Gift Manase and Ben Fawcett. Southampton, July 2004

Contents

Acronyms and Abbreviations

CBO	Community-based organisation
CRF	Central Rates Fund (Zimbabwe)
DFID	Department for International Development (United Kingdom)
DRA	Demand-responsive approach
DWAF	Department of Water Affairs and Forestry (South Africa)
EIA	Environmental impact assessment
ESA	External support agency
GHK International	UK-based consulting company that has carried out extensive research into sanitation in collaboration with WEDC (qv)
GRZ	Government of the Republic of Zambia
IDWSSD	International Drinking Water Supply and Sanitation Decade (1981-1990)
IPA	Inter-country People's Aid (a non-governmental organisation active in Zimbabwe)
JICA	Japan International Cooperation Agency
LCC	Lusaka City Council
LWSC	Lusaka Water and Sewerage Company
MLGH	Ministry of Local Government and Housing (Zambia)
MLGPWNH	Ministry of Local Government, Public Works, and National Housing (Zimbabwe)
MOHCW	Ministry of Health and Child Welfare (Zimbabwe)
MRRWD	Ministry of Rural Resources and Water Development (Zimbabwe)
NaSCO	National Sanitation Co-ordination Office (South Africa – part of DWAF (qv))

NGO	Non-governmental organisation
NWASCO	National Water Supply and Sanitation Council (Zambia)
PHAST	Participatory hygiene and sanitation transformation
PLA	Participatory learning and action
PPPs	Public-private partnerships
PRA	Participatory rural appraisal
PROSPECT	Programme of Support for Poverty Elimination and Community Transformation (a development programme in Lusaka funded by DFID and implemented by CARE-Zambia).
PUSH	Peri-Urban Self Help (a predecessor programme of PROSPECT)
RDC	Residents' Development Committee (Zambia)
RDC	Rural Development Council (Zimbabwe)
RDP	Reconstruction and Development Programme (South Africa)
SSA	Strategic Sanitation Approach (promoted by the World Bank in the late 1990s)
SWM	Solid waste management
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
US$	United States Dollar
VIP	Ventilated improved pit (latrine)
WASHE	Water, Sanitation and Health Education
WEDC	Water, Engineering and Development Centre, Loughborough University, United Kingdom
WHO	World Health Organisation
WSP	Water and Sanitation Program – a global programme administered by the World Bank
WSS	Water supply and sanitation
ZESCO	Zambia Electricity Supply Corporation

Glossary

Informal housing: Housing of a temporary nature, often built from a range of materials such as plastic, steel sheets, mud blocks and plywood. This includes backyard shacks and housing in freestanding informal settlements (qv).

Informal settlements: Poor urban settlements such as slums, shanty-towns and peri-urban areas. These areas are characterised by high population densities; poor housing, sewerage and drainage facilities; few or no paved streets; irregular clearance; low income and professional diversity, mainly unskilled in nature (UNICEF, 1994).

Institutional: Concerning administrative and decision-making structures, systems and bodies.

Migration (internal): The number of people relocating from one part of a country to another.

Peri-urban areas: Areas inhabited by the urban poor which are located either in the heart of the urban areas or on the fringes of the formal urban areas. These areas are characterised by high population density; poor housing; inadequate water supply; poor sewerage and drainage facilities; and irregular clearance of garbage. (In this book peri-urban areas have also been referred to as squatter areas, slums or informal settlements. 'Peri-urban areas' is the term most commonly used in Zambia.)

Sanitation agencies: All organisations involved in the provision of sanitation services. These include local authorities; central government ministries and departments; private sanitation companies; donor agencies (also known as external support agencies); non-governmental organisations; and community-based organisations.

Sanitation: The principles and practice relating to the collection, removal, and disposal of human excreta, refuse and wastewater, as they impact upon users, operators and the environment. Note that this term is used in this general sense in this book, rather than in the more limited sense of excreta disposal alone, as is sometimes the case in other texts.

Sustainability: The ongoing successful functioning and growth of any development effort or project in an area.

Tenure: A bundle of rights which regulate access, use and ownership over land and other resources (for example water, trees and crops). Land tenure refers to arrangements and rights under which the holder uses or owns land.

Urban areas: Places classified as 'urban' by the central statistics office, or similar body, of a country (unless otherwise specified, in which case other criteria are used to distinguish 'urban' from 'rural' areas and should be stated). Urban areas are usually characterised by a concentration of people who depend predominantly on incomes derived from non-agricultural pursuits, and they usually contain certain services associated with towns and/or cities, as distinct from farms and other non-urban localities (Kok and Gelderblom, 1994).

Urban poor: People who live in informal settlements of the urban and peri-urban areas. Nevertheless, it should be noted that a few residents of such areas are relatively wealthy.

Urbanisation: The process of becoming urban; a process by which an increasing proportion of an area's population becomes concentrated in urban areas.

Introduction

The failure of approaches used in the past in the provision of sanitation to those living in poverty in developing countries has left many people still lacking improved sanitation. Although the majority of people without sanitation services live in rural areas, the worst environmental health conditions exist in the vast, urban informal settlements, due to the high population densities in such locations (Varley et al, 1996; Wright, 1997; Mulenga, 2003). Supply-led approaches, which were the norm before the 1990s, proved unsustainable over the years because the consumer's demand for improved sanitation services was not taken into consideration by sanitation agencies. This prompted the development and implementation of approaches which focus on the participation of communities and cost recovery in programmes for sanitation provision.

During the International Drinking Water Supply and Sanitation Decade (IDWSSD, the 1980s) and beyond, professionals in the sector were forced to come up with new initiatives to help solve water and sanitation problems. Among the initiatives were the 'Dublin Principles', adopted in 1992 at the International Conference on Water and the Environment. These principles are summarised as follows:

- Water management requires an integrated, holistic approach;.
- Water is an economic good and its value should be respected;
- Stakeholder involvement is essential to sustainability of services;
- Women play a central role in domestic water management, which needs to be taken into account.

The 'Dublin Principles' have provided the basis for all water and sanitation related policy discussion and development cooperation since then (Black, 1998). It is notable that the term sanitation is not explicitly included in the wording of these principles; nevertheless, there seems to be an implicit understanding that this sector should be governed by them.

A number of approaches have been proposed for implementation in the sanitation sec-

tor that are directly or indirectly linked to the Dublin Principles. The most notable, in terms of sanitation, include the Demand Responsive Approach (DRA), the Strategic Sanitation Approach (SSA), and the Sustainable Livelihoods Approach (SLA). There is also now overwhelming support for the adoption of Public Private Partnerships (PPPs). A summary of each of these approaches is presented below.

Approaches in the Sanitation Sector

Demand Responsive Approach (DRA)
The DRA is a methodology that allows the demands of consumers as individuals and as a community to guide key investment decisions as to how much they are willing to contribute in cash, labour and time, for the establishment and running of the services (WSP, 2000). International experience indicates that a supply-driven approach may lead to over-provision of infrastructure, creating costly and unsustainable schemes, resulting in the waste of resources (DWAF, 2002; Briscoe, 1997). Putting the philosophy of a demand-driven approach into practice is just beginning, however, and much remains to be learned about the practical implementation of this approach (Whittington et al, 1998). One of the dangers of the DRA is that the poor may be required to pay the full cost of services, because they are the target of externally-funded programmes that insist on cost recovery (Tayler, 2000).

Strategic Sanitation Approach (SSA)
The Strategic Sanitation Approach (SSA) is an approach to the delivery of sanitation services which aims to engage with all the factors, social, technical, institutional and economic which impact on the potential for sustained service provision to all sectors of the urban community (Cotton, 1997). One of the key principles of the SSA is that it is demand-based. A demand-based approach, according to this strategy, requires that implementing agencies should find out what potential users want and what resources they have to finance and manage any system that is installed (Wright, 1997). One of the main reasons for the development of the SSA was that it should provide a framework for the delivery of sustainable sanitation services and infrastructure (Tayler and Parkinson, 2000).

Sustainable Livelihoods Approach (SLA)
The Sustainable Livelihoods Approach is an approach to development that aims to put people and the households in which they live at the centre of the development process, starting with their capabilities and their assets, rather than with their problems (Rakodi, 2002). This approach offers a vital framework for the understanding of livelihoods, particularly the livelihoods of the poor (DFID, 1999).

Public Private Partnerships (PPPs)
The term Public Private Partnerships (PPPs) refers to those forms of partnership in

which the government establishes an arrangement with the private sector in which the latter provides some form of investment (Plummer, 2000). PPPs emerged from the premises that the public sector, and especially the local authorities, are not equipped to meet the continually expanding need for urban infrastructure and that the private sector could provide financial and human resources and technologies to meet the growing need. It is, however, important that poor communities are adequately involved in decision-making and the provision of services, for PPPs to work successfully.

It is quite evident from the above summary of current development approaches that a major component of their potential success lies in the relationship between local communities and the development agencies and service providers. Sanitation projects are more likely to be sustainable in the long term if effective links are developed between communities and sanitation agencies, and if communities are actually involved in the process of sanitation provision (Sohail et al, 2001; FAO, 2002; Korten, 1996). Current approaches that are recommended in the urban sanitation sector recognise the needs of the urban poor, and the importance of their participation in decision-making. However, many governments and sanitation agencies in developing countries, including those studied in the research reported here, still plan their sanitation services with limited or no participation of the urban poor. For example, community members are concerned about the removal of waste from their household environment, but sanitation agencies are justifiably worried about the whole community, the city and the larger environment. Agencies may promote a single technical solution to connect the whole city, for example by sewers or an integrated solid waste management system. Such requirements need to be explained to local people and discussed with them, in order to try to gain their support for the broader aims of the urban authorities. Appropriate cost recovery strategies need to be developed to take account of different parts of the urban population living at various economic levels.

Questions still remain, therefore, about how to ensure that the urban poor participate in sanitation programmes in practice, especially in view of the weak democratic processes in many developing countries. In most cases, the situation of urban poor communities is exacerbated by the fact that their settlements are considered illegal; for this reason they lack access to decision-making mechanisms.

Difficulties in achieving improved sanitation are further compounded by low investment in the sector. Despite the numerous benefits of improved sanitation, as listed below, sanitation received only 20 percent of the US$16 billion invested in water supply and sanitation by national governments and external agencies between 1990 and 2000 (POST, 2002). Investment in sanitation has been inadequate for several reasons, including the fact that demand for sanitation is often very low, and stimulating improvements takes time and money (LaFond, 1995).

There is a need, then, to critically analyse the way in which sanitation agencies operate.

We need to examine their perceptions of those they are meant to serve, on the one hand, and the needs, perceptions and practices of the urban poor, on the other hand, and to find means by which information from both sides can be exchanged more effectively.

Aims of the Study

It is in recognition of the need for effective communication channels between urban poor communities and sanitation agencies that the research reported here was designed and undertaken. The study is an attempt to develop ideas that could help bridge the gap between sanitation agencies and poor urban communities, regardless of which development approach is used. Research was carried out in urban informal settlements because, as noted above, these locations present the worst sanitation situation in developing countries. The goal of this investigation is to make a contribution to the improvement of environmental sanitation conditions in poor urban areas, through suggesting ways in which effective linkages between sanitation agencies and the urban poor could be established. Many benefits derive from improved environmental sanitation, which may include those listed in the box below. These range from important benefits to individuals, to those that improve the environment of a whole city, or that have a significant impact on the local economy.

Benefits of improving access to sanitation

Increasing access to sanitation is a key component of development and poverty reduction, as it has major health benefits as well as associated social, economic and environmental benefits. These include:

- **Public Health** – diseases related to inadequate sanitation and poor hygiene are among the most significant causes of illness and death in developing countries, especially among children under five. Providing sanitation is also instrumental in meeting international health targets.
- **Public Services** – the public health consequences of inadequate sanitation put pressure on health services in developing countries.
- **Human Dignity** – sanitation facilities provide privacy, safety, dignity, a cleaner environment and greater convenience to users.
- **Gender** – without access to household sanitation women and girls face dignity and safety issues. They may only be able to defecate at certain times to ensure privacy, and/or avoid harassment and sexual assault. Lack of school sanitation is a barrier to girls enrolling and staying at school, especially during menstruation.

- **Poverty Elimination and Economic Growth** – illness and death from poor sanitation results in lost economic activity, which reduces household income and productivity of the local economy. The contamination of rivers and aquifers with human excreta can also damage agricultural production and tourism, which can impact on national economies.
- **Water Supply** – when human excreta enters a drinking water supply, it compromises safety. Improving sanitation and hygiene practices maximises the benefits of investments in water supply.

Adapted from POST, 2002.

With 40-50 percent of the urban population in developing countries already living in informal settlements (World Bank, 1998), urgent action is required from the governments of those countries to avoid the pending sanitation calamity. Yet many developing countries still ignore informal settlements and consider them to be illegal or temporary. Where governments have attempted to assist the urban poor, their activities have been hampered by lack of accurate statistics for planning, and lack of understanding of the needs, perceptions, and coping strategies of the urban poor. This has resulted in the services provided not meeting the needs of the urban poor (Gilbert and Gugler, 1997). At the World Summit on Sustainable Development, held in Johannesburg in 2002, the world leaders agreed on targets to halve the proportion of the global population lacking adequate sanitation by 2015. This proportion currently stands at 40 percent - 2.4 billion of the world's people. To meet this ambitious target, the United Nations believes that coordinated action is required, not just from governments, but also from people who use the water and sanitation facilities and those who invest in them. The need for partnerships between communities and sanitation agencies of all kinds does not need further emphasis. A wide range of agencies is involved in setting policies, and in providing and supervising services in the sanitation sector, from government ministries to small-scale, local entrepreneurs. These parties, their structures, roles and responsibilities, are discussed in the early part of Chapter 1.

Although some people advocate that individual households should be the primary target in sanitation programmes, this research emphasised the need for solutions at the community level. Problems relating to water supplies, sanitation, food contamination and insect infestation are clearly intertwined. People's actions are clearly interdependent because individuals acting independently do not have any significant incentive to manage the public environment properly (McGranahan et al, 1999). Children, who are most affected by faecal-oral diseases, often move freely from house to house in the course of their play, damaging the child's own environment, and endangering their own health, still further (Pickering, 1985). The authors of this book appreciate the importance of targeting households in many cases and are leading another DFID-funded research project (KAR R8028) which looks at the particular sanitation needs and interests of households living in urban poverty, and those of individuals within the household, building on the

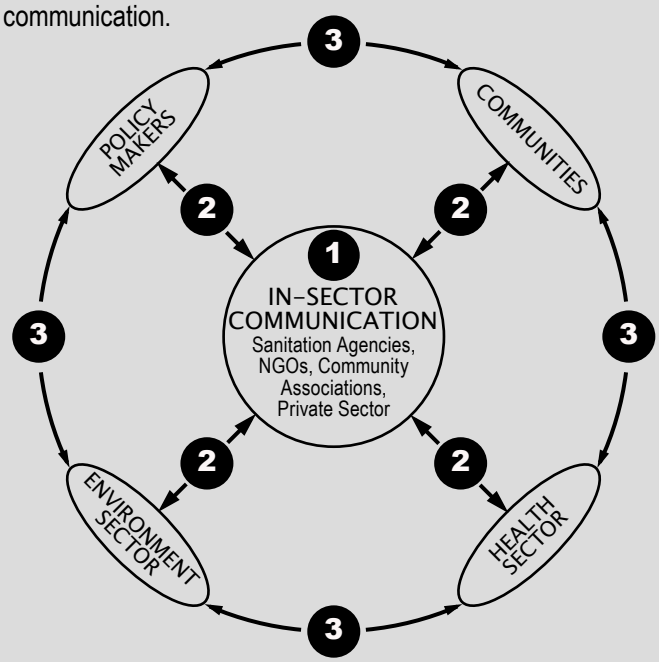
understanding developed through the work reported here.

Given the wide range of agencies involved in the provision of sanitation services and facilities, from international donors, through municipal authorities, to local community groups, and given the intensely personal and sensitive nature of many of the issues with which we are concerned, it is clear that most of these agencies cannot hope to have a direct relationship with households, let alone with individual women, men, girls or boys within them. This study has therefore focused on the collective action of local community groups and the channels that are, or need to be, open to them for communicating with and influencing these various agencies.

This work acknowledges and aims to build on other initiatives by organisations such as GHK in their book 'Urban Sanitation – A Guide to Strategic Planning' (Tayler et al., 2003) and the IRC International Water and Sanitation Centre in their publication 'Communication in Water Supply and Sanitation: resource book' (Gorre-Dale et al, 1994). The discussion about the role of the water and sanitation sector in a network of communication is of particular interest and relevance, and is summarised in the box below.

The sector role in a network of communication

The following diagram illustrates the web of communication that can develop within and outside the sanitation sector. In this matrix, communication takes place within the sector, and between the sector, other sectors, the community, and policy makers. The diagram shows different ways in which these four different groups interact, to make a network of communication.



1. Communication within the sanitation sector: between sanitation agencies, NGOs, community associations and the private sector.

2. A two-way flow of communication: between the sector agencies and policy makers; between the sanitation sector and other sectors, such as health or environment; between the agencies working in the sector and communities.

3. Communication between these other groups, influenced by the communication agenda set by the sector, but not controlled by it.

This does not imply that the sanitation sector is at the centre while other players spin around it like satellites. It does illustrate that the sector must take responsibility for building the links, and must place itself at the centre of its own communication strategy. Other sectors will have their own maps, in which they take centre stage.

Source: Adapted from Gorre-Dale et al, 1994.

This book aims to provide some practical suggestions for improved planning and practice in the sanitation sector in poor urban areas of developing countries. Whilst the study on which this book is based took place in three countries in southern Africa, it is hoped that the recommendations can be applied in other contexts.

The main aims of this book are:

- To identify the key issues and challenges affecting relationships between sanitation agencies and urban poor communities in the provision of sanitation;
- To identify and promote 'good practice' in the provision of sanitation to urban poor communities;
- To provide a framework of practical solutions that could help to bridge the gap in communication and understanding between sanitation agencies and urban poor communities.

Methodology

In order to fulfil the aims of this study, an assessment was carried out of the existing levels and quality of sanitation services, and of the knowledge, attitudes and practices of both sanitation agencies and the urban poor in Zambia, Zimbabwe and South Africa. Institutional policies, approaches, strategies and cost recovery mechanisms employed by the agencies, and the links between communities and these agencies, in poor urban

areas of these three countries were also analysed. In Zambia the surveys were undertaken in selected areas of the cities of Ndola and Lusaka; locations in Harare (the capital), Epworth, a settlement on the outskirts of Harare, and Gutu and Gokwe (urban growth points in rural areas) were chosen for survey in Zimbabwe; and poor settlements in Pretoria and Durban were assessed in the Republic of South Africa. The table below presents a summary of the study sites in the three countries.

Study sites in Zambia, Zimbabwe and South Africa

Settlement	Locality	Legal Status And Authority	Population*
Zambia			
Nkwazi	Ndola (Copperbelt)	Legal (Ndola City Council)	45,000
McKenzie			10,000
Kalingalinga	Lusaka	Legal (Lusaka City Council)	30,000
Kanyama			90,000
Zimbabwe			
Newlines	Mbare	Legal (Harare City Council)	10,000
Shawasha			8,000
Zinyengere	Epworth	Legal (Local Board)	100,000
Overspill		Legal (Local Board)	
Gada		Illegal	
Old Location	Gutu	Legal (CRF)	22,000
Hwiru		Legal (RDC)	
Farmagrida		Illegal	
Cheziya	Gokwe	Legal (Town Board)	60,000
Mafungautsi			
Nyaradza			
South Africa			
Phase 1 (Mamelodi)	Pretoria	Illegal (Tshwane Metro Council)	10,000
Jeffsville (Atteridgeville)			20,000
Cato Crest	Durban	Legal (Durban Metro Council)	17,200
Bester			16,000

CRF = Central Rates Fund RDC = Rural District Council

*Population figures are estimates given by local authorities. Population figures for Mbare are for Newlines and Shawasha only, and not for the remainder of Mbare, which is much bigger, whereas figures for other localities in Zimbabwe are given for the entire locality.

The following criteria were used to select the study sites:

1. There are significant sanitation problems in the selected areas.
2. The sites represent the different ways in which urban areas have developed in the three countries, and the different administrative structures that manage urban areas.
3. Responsibility for sanitation in these areas is representative of the different situations in the three countries.
4. The legal status and land tenure of informal settlements in the selected sites varies and is representative of informal settlements in the three countries.
5. Authorities in these areas accepted and cooperated with implementation of the project.

The study, which was carried out in 1999-2000, used both qualitative and quantitative methods in gathering data. For primary data collection, in-depth structured and semi-structured interviews and focus-group meetings were undertaken at household level in order to explore the respondents' background, facilities, practices, behaviour, knowledge and attitudes. Purposive sampling was used to select study sites and key informants within the participating countries while random sampling was used to select households. A total of 3,323 respondents were interviewed at household level (1,154 in Zambia, 1,429 in Zimbabwe, and 740 in South Africa). Representatives of 49 agencies were interviewed in Zambia, 15 in Zimbabwe, and 39 in South Africa. In addition to interviews, observation was also used to determine hygiene behaviour and to assess environmental sanitation conditions in the study sites. Furthermore, interviews were also undertaken with staff of international organisations, mostly based in the United Kingdom, dealing with water and sanitation issues. Dialogue was maintained with them and others throughout the period of study and analysis.

A detailed willingness to pay study was carried out in Zimbabwe as well, using the contingent valuation method (CVM). The 1,429 randomly selected households were asked their willingness to pay for four scenarios: 1) improved household refuse collection; 2) construction of a household Blair (VIP) latrine; 3) improved drainage systems; and 4) improved public environmental sanitation, including waste treatment, maintenance of dump-sites and cleaning of streets. Bids were elicited using the binary-with-follow-up format (Onwujekwe, 2001) in which respondents were asked whether or not they would pay a given amount (binary) first, before being asked to state their maximum willingness to pay in an open-ended question (follow-up).

An in-depth review of literature from a wide range of published and unpublished sources was also undertaken to supplement the field studies and to identify the key issues that were relevant to the research.

It must be noted that due to limited published materials from the sanitation sector,

several examples have been chosen from the water supply sector because they summarise so well the key issues within which a consideration of sustainable urban sanitation must take place.

The major strength of this book is that it is based on intensive field experiences in the three countries, although literature and examples from elsewhere are also referred to in some cases.

Jeffsville Informal Settlement in Pretoria, South Africa

Who is the Book for?

This book is aimed at those engaged in the provision of sanitation services to and with urban poor communities, and those with a wider policy interest in this sector. It is aimed largely at the staff of local authorities and of those organisations that work with them in order to provide sanitation services. It is also relevant to non-governmental organisations (NGOs) and to community-based organisations working in informal urban settlements.

The book offers information on the current sanitation situation in urban poor communities of Zambia, Zimbabwe and South Africa. It identifies many key issues that need to be addressed in order to bring about more effective and sustainable sanitation for poor people living in urban informal settlements. These recommendations should not be treated as standards, but should help in the process of reflection, and in the development of better policies and programmes, based on partnership between agencies involved in sanitation and the communities, families and individuals whom they strive to serve. They should be applied with due regard to the prevailing local conditions.

Structure of the Book

The remainder of the book is organised in three chapters as follows:

Chapter 1 briefly summarises results of the surveys of the communities studied in the three countries, and the context in which the sanitation services and facilities are planned, provided and operate.

Chapter 2 presents an analysis of the development of links between communities and the sanitation agencies. Key issues are highlighted.

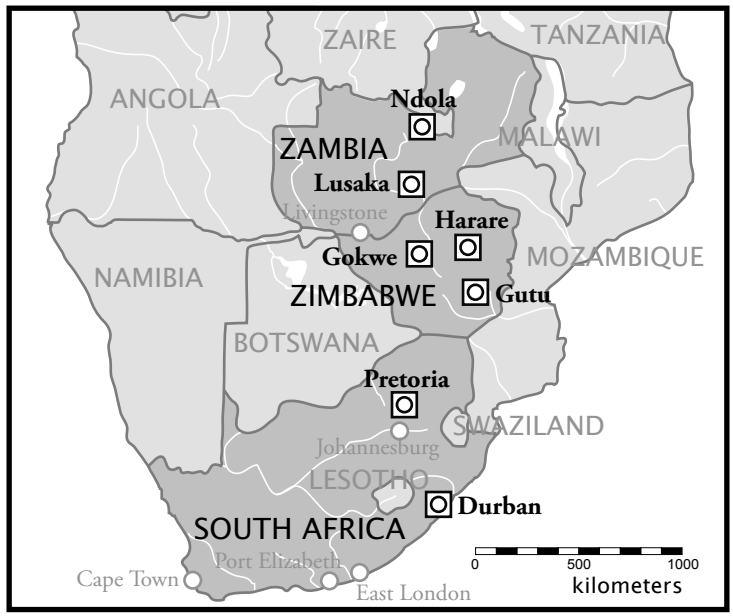
Chapter 3 concludes the book by presenting some suggestions for improved planning and practice in the sanitation sector in informal urban areas of developing countries. These recommendations are based on the underlying principle that agencies need to be more responsive to the needs, demands and interests of the poor communities that they should be serving; to achieve this, links between the agencies and communities need to be greatly improved.

It is not intended that readers should have to read all the three chapters in order to understand the recommendations for better planning and practice, but the rationale that has led to the concluding chapter will hopefully be clearer if the preceding ones are also read.

Chapter 1

The Research Setting and Findings – A Sanitary Crisis

This chapter presents a summary of the findings of the very extensive surveys carried out in twelve urban informal settlements, and amongst a wide range of sanitation agencies, in three southern African countries. This is a synthesis of material contained in two research theses (Manase, 2003 and Mulenga, 2003) both of which are themselves syntheses of much more material. The first section presents an overview of the sanitation sector in Zambia, Zimbabwe and South Africa, and the second part presents the socio-economic data collected in the surveys and investigations carried out in the settlements. A large amount of data was collected; here we summarise the key data in an attempt to illustrate the most important issues. The data also present evidence for the discussion that follows in Chapter 2.



Map of southern Africa showing the study sites

An Overview of the Sanitation Sector in Zambia, Zimbabwe and South Africa

Sanitation services in Zambia, Zimbabwe and South Africa are provided and controlled by a number of ministries, under various legislative acts and regulations. In formal urban areas, sanitation services are provided by local authorities (municipalities and local governments). The box below indicates the wide range of organisations, from central government to local community organisations, that are currently involved in the provision of water and sanitation in South Africa, as laid out in the 2003 Strategic Framework for Water Services. The nature of these organisations is not very different from those in Zimbabwe and Zambia. It must be noted that sanitation falls under the water sector in the three countries, which in most cases leads to sanitation being overlooked.

Organisations Involved in Water and Sanitation Services in South Africa

1. **The Department of Water Affairs (DWAF)** is responsible for sector policy, support and regulation. DWAF currently operates water resource infrastructure (such as dams), some bulk water supply schemes and some retail infrastructure (providing services directly to consumers). DWAF water services assets are currently in the process of being transferred to water services authorities. **The Department of Provincial and Local Government** regulates and oversees the activities of local government. Other national government departments and provincial government departments also play an important role in the water services sector.

2. **Water services authorities** (metropolitan municipalities, some district municipalities and authorised local municipalities) are responsible for ensuring provision of water services within their area of jurisdiction.

3. **Municipalities** operate some local water resource infrastructure (such as dams and boreholes) and bulk water supply schemes, supply water and sanitation to consumers (households, businesses and industries) and operate wastewater collection and treatment systems.

4. **Water boards** operate some water resource infrastructure, bulk potable water supply schemes (selling to municipalities and industries), some retail water infrastructure and some wastewater systems.

5. **Community-based organisations** manage some small water schemes in rural areas.

6. **Publicly or privately owned companies** provide some water services. For exam-

ple, Johannesburg Water is a public utility wholly owned by the City of Johannesburg Metropolitan Municipality. The direct involvement of privately owned companies in the operation of water services in South Africa has been limited (only five) to date.

7. **Other role-players** are involved in the water services sector. These include any organisation providing water services, all **consumers** and **households** using water services, all **employees** in these organisations and their related representative structures, **education** and **training institutions**, **professional bodies**, **contractors**, **NGOs**, the **manufacturing industry**, **business** and other organisations involved in supporting activities such as research and development.

Adapted from DWAF (2003): Strategic Framework for Water Services – Water is Life, Sanitation is Dignity.

The key agencies in the direct provision of sanitation services to the households, as indicated in the box above, are the local authorities in all the three countries. At the national level, the ministries of finance, health and local government provide funds, technical assistance and coordination of sanitation activities, respectively. In Zambia, the activities of water supply and sanitation agencies in urban areas are regulated by the National Water Supply and Sanitation Council (NWASCO), whereas in South Africa, the Department of Water Affairs and Forestry (DWAF) fulfils this role. Major functions of NWASCO are to provide advice to government and local authorities, to license providers, to set standards and to initiate by-laws. In Zimbabwe, institutional arrangements for growth points[1] are not clear. The Central Rates Fund (CRF), the Rural District Council (RDC) and the Department of Works, all within the Ministry of Local Government, Public Works, and National Housing (MLGPWNH) perform identical functions in various parts of different growth points.

The provision of sanitation services in towns and cities is governed by a number of legislative acts, which are formulated and enforced by different government ministries and departments. In Zambia, these include the Local Government Act, Water Supply and Sanitation Act, and the Town and Country Planning Act. In Zimbabwe, urban sanitation standards are set and controlled through legislative mechanisms such as the Town Planning Act and the Housing Standards Act, which are both set by the MLGPWNH, the Public Health Act enforced by the Ministry of Health and Child Welfare (MOHCW), and the Water Act which is enforced by the Ministry of Rural Resources and Water Development (MRRWD) (Mudege and Taylor, 1997). In South Africa, the Water and Sanitation Policy outlines the roles and responsibilities of all involved agencies, and the other legislative acts that deal with sanitation are the Water Services Act and the Environmental Health Act.

[1] Growth points in Zimbabwe, such as Gutu and Gokwe which were included as study sites in this research, were established in the 1980s in previously rural areas to act as centres of growth, providing markets for rural produce and initiating industrialisation.

Standards for sanitation services provided to the urban population in the three countries are based on the flush toilet and waterborne sewerage. In Zimbabwe, the bucket system, which was allowed in urban areas, was phased out in accordance with the Housing Standards Act of 1977. The use of ventilated improved pit (VIP) latrines is prohibited in towns and cities by a 'blanket' regulation, but these are allowed in areas where there is no water, such as for vendors at market places. Pit latrines of *any description* are not allowed in urban areas, but are common in growth points and service centres, mainly due to the unavailability of water. In smaller urban centres, the septic tank system is widely used. The South African Water Services Act of 1997, states that local authorities that lack the means to provide a high level of sanitation service to all inhabitants are allowed to pursue alternative options, which will enable all South Africans to enjoy an environment that is healthy. However, despite this provision, many urban local authorities still prefer to try to provide waterborne flush toilets rather than VIP latrines; in cases where VIPs are provided they are considered to be a temporary measure.

Responsibility for sanitation in informal areas does not fall clearly within the remit of any government agency. In Zambia and South Africa, local authorities provide sanitation services in the legalised informal areas. In Zimbabwe, all informal settlements in urban areas are illegal. Local governments in the three countries have not made any large-scale investment in informal settlements, especially those that are illegal, leaving the burden for the provision of both infrastructure and services on non-governmental organisations (NGOs).

The illegality of many informal settlements is the main stumbling block to serious investment in sanitation by agencies, although very little is done even in the legal settlements. Most of the sanitation services in illegal areas in the three countries are provided by NGOs and local communities themselves. NGOs are allowed to invest in informal settlements in the three countries. However, in Zimbabwe, permitted development is limited to temporary structures, and the roles and responsibilities of NGOs working in such areas are not as clearly outlined as they are in Zambia and South Africa.

The structure of the local authorities, their codes of conduct and the legislative context within which they work are, to a large extent, still set in a 'supply-led' framework aimed at serving only formal, planned urban areas. As a result, local authorities face problems when it comes to setting standards and providing services which meet the needs of the urban poor. The surveys, which are discussed in the next section, showed that local authorities, even where their responsibility is acknowledged, provide only very limited services, if any, in poor urban settlements.

The Socio-economic and Sanitation Situation in the Study Areas

The majority of the respondents interviewed in the three countries were female, as the table below indicates. Likewise, the majority of those surveyed in all the study areas had moved from other urban and peri-urban areas, except for those in Durban, South Africa, where most households had migrated from the rural areas. The informal settlements in Zambia have existed for a long time (an average of 37 years), and those surveyed have lived there for an average of nine years. The settlements in Zimbabwe and South Africa have had a shorter history. Although the Zimbabwean residents had been living in their present location for an average of only five years, 73 percent of them had moved to the urban areas 15 years ago. Many reasons are cited for migrating to the informal areas, including the need to send children to better schools in urban areas; seeking employment; high transport costs and the need to be close to work places; shortage and high cost of formal accommodation; availability of cheap stands in informal areas; retrenchment; retirement; death of parents or spouse; divorce; a wish for privacy; and eviction or relocation by government. The majority in all these areas feel that they are much better off now than where they were living before, even though, especially in Zimbabwe and South Africa, their residence is considered illegal.

At least 12 percent of the household-heads surveyed in the three countries have had no formal education, although the figures range from only 3.8 percent in Gutu to over 27 percent in Epworth (both in Zimbabwe). The average number of persons living in one household is 5.6 in Zambia, 4.2 in Zimbabwe and 4.3 in South Africa. A significant proportion of the households in all the study areas were female-headed, with South Africa having the most at 28 percent.

The level of unemployment of the household heads is relatively high in all the three countries and in Jeffsville, Pretoria it is as much as 60 percent. On average, households surveyed earn US$81 per month in Zimbabwe, but the equivalent figure in Zambia is only US$55 and in South Africa, US$105. Less than 47 percent of the respondents were employed in the formal sector while the rest had informal employment.

Amongst those surveyed in Zimbabwe, households spend an average of 15 percent of their income on rent, water, and sanitation and many stated that they can afford to save part of their income; over 80 percent of the respondents have bank accounts. In addition, 35 percent of those surveyed own their homes, while over 70 percent of the households have a radio, television, or refrigerator, except in Epworth where there is no electricity. In Zambia and South Africa by contrast, the situation is slightly different; the majority claimed to be unable to make any savings from their incomes, as they are so low, though some do own household possessions such as radios or television sets, especially in places such as Jeffsville and Bester, where electricity is available.

Although households spend a small fraction (15 percent in Zimbabwe) of their income on rent, water, and sanitation, other commitments such as school and health fees, trans-

port and food take much of their income. This implies that the urban poor may not be able to afford the high up-front costs of investment in sanitation. These average figures mask wide differences in socio-economic circumstances. Whilst the average reported monthly household income in the Zimbabwean settlements is Z$3,622, 20 percent of respondents reported incomes of less than Z$1,000 a month and 14 percent have more than Z$5,000. With household sizes of at least four, the majority of respondent families in all three countries are apparently living well below the globally recognised US$1-a-day poverty line. Nevertheless, since many do have regular and relatively steady income, as well as some savings and assets, sanitation agencies should consider making credit facilities available.

These socio-economic characteristics affect the level and quality of sanitation services and the effectiveness of health and hygiene education. Sanitation agencies need to explore and to understand these factors, and especially the particular local situation of the settlements with whom they intend to work, and plan their work accordingly.

Socio-economic Profiles of the Study Areas

	Zambia	Zimbabwe	South Africa
Female respondents	60%	65%	53%
Rural origin	15%	87%	42%
Urban origin	42%	12.6%	46%
Origin from other informal settlements	43%	0.4%	12%
Average length of stay	9 years	5 years	5 years
Average age of settlements	37 years	10 years	11 years
Illiteracy (no formal education)	11%	12%	13%
Average household size	5.6 persons	4.2 persons	4.3 persons
Average monthly household income	US$55	US$81	US$105
Unemployment	34%	Approx. 45%	36%

Note: Exchange rates were very unstable, especially in Zimbabwe, during the period of this study; therefore quoting financial figures in US Dollars, for comparability, introduces some inaccuracy. Unemployment refers to lack of employment in the formal sector amongst members of the household.

Water Supplies

Poor urban communities use different sources of water for different purposes. Demand assessment studies should note and take account of this. In most cases, tap water is used for drinking and cooking, whilst well and river water is used for washing. The main reason for this is the long distance to reach a tap that provides safe water, whereas the alternative sources are nearby and are either free or cost only a small fee compared to the safer sources.

Most of the respondents draw their drinking water from communal and household taps, but some use water for this purpose from wells and other unprotected sources. The table below indicates the different water sources that are used in the various areas studied. However, whilst these overall statistics do indicate some differences within particular settlements, they also hide other differences between residential areas. In Farmagrida, for example, 80 percent of the respondents use water from unprotected sources while others use water that is red in colour, due to contamination, from an unreliable borehole, and some use both, for different purposes. Although the table shows that a very high proportion of households have access to household or communal taps, there are critical water problems in these areas. Water is rationed, there are long queues at communal taps and in Nkwazi, McKenzie and Gokwe, households sometimes experience water cuts of up to three weeks. The communal taps in all three countries are also located, in most cases, at great distances from many households, resulting in long, tiring and time-consuming journeys for the women and children, whose responsibility it usually is to collect drinking water. Women and girls may be at risk of attack during such journeys, particularly at night. Some households, in Kanyama and Jeffsville, travel nearly two kilometres to fetch water.

An unprotected water source in Gutu growth-point, Zimbabwe

Water Sources Used by Respondent Households

Study site	Locality	Water source (% of households)								Monthly household expenditure on water (US$)
		Tap within household (%)		House-hold well (%)	Communal source			Private vendors (%)	Others (%)*	
		Indoor	Outdoor		Piped tap (%)	Well (%)	Borehole (%)			
Zambia										
Nkwazi	Ndola		3	1	93	2	1			
McKenzie			2	9	10	77			2	
Kalingalinga	Lusaka	3	18	4	75					
Kanyama		2	7	10	80	9			2	
Zimbabwe										
Newlines	Mbare				100					3.8
Shawasha					100					3.0
Zinyengere	Epworth		90		83		6		33	1.5
Overspill								6	11	5.6
Gada								3	98	0.05
Old Location	Gutu		100							3.1
Hwiru			100							2.7
Farmagrida							50		80	4.0
Cheziya	Gokwe		100							3.3
Mafungautsi			39					61		3.9
Nyaradza			92					7	1	2.8
South Africa										
Mamelodi	Pretoria	2	19		79					
Jeffsville		2	27		71					
Cato Crest	Durban		82		17				1	
Bester			25		75					

*These sources include shallow wells and all unprotected sources: streams, rivers and dams.

Households who buy water from vendors pay more for a limited and inefficient water supply than residents in other areas with considerably more reliable household connections. The local authorities do not charge the communities for the use of communal taps in the study areas of Zambia and South Africa. However, in Kanyama, the Residents' Development Committee collects money from households for water drawn from the taps fed by a single borehole in the settlement; the households pay US$1.15 a month or US$0.04 per day for a maximum of six 20 litre containers each day. It was impossible to establish how much households paid to water vendors in South Africa at the time of the study, as cases of payment were very isolated. The willingness to pay that is indicated by these figures is not captured by local authorities, resulting in loss of revenue.

Women and children drawing water from a communal tap in Kanyama, Lusaka

Latrine Coverage

The table below shows the latrine types and coverage in the areas studied in Zambia, Zimbabwe and South Africa. With a few exceptions in Zimbabwe and South Africa, residents in all areas principally use unimproved pit latrines for human waste disposal. While the majority have some form of latrine, 70 percent of the households in Farmagrida (Gutu Growth Point) have no facilities at all, whilst less than 18 percent lack facilities in the other areas. Reasons given by the households without latrines are as follows:

- The latrine was either full or had collapsed and the household could not afford to construct another one;
- Uncertain or illegal land tenure;
- No space in the yard;
- Rocky terrain;
- No manpower for construction, especially in female-headed households;
- Services not provided by local authorities;
- Households waiting for the promised water-borne systems;
- Landlords not interested; and
- Lodgers not prepared to invest in sanitation for fear of rents being raised.

In most cases, sanitation services do not satisfy the wishes of the urban poor. A significant number of people in all three countries are dissatisfied with their sanitation facilities, ranging from unimproved pit-latrines to communal facilities provided by the local authorities. Although the figures show 100 percent access to flush toilets in Mbare, a densely populated inner-city area of Harare, this hides very serious problems of overcrowding at communal toilets (see the box below). Many households depending on communal facilities state that they would prefer private, household latrines. People using the various forms of pit latrines noted the following as major problems which they face:

- Bad smells and poor cleanliness;
- Presence of rodents and insects;
- Poor latrine construction materials;
- No lighting at night;
- Inappropriateness for women and children;
- Shallowness of pits;
- Lack of affordable pit emptying facilities;
- Poor location of latrine; and
- Lack of privacy (especially for adolescent girls during menstruation).

Excreta Disposal Facilities

Study site	Locality	Facility used (%)						
		Flush toilet	Pour–flush latrine	Blair / VIP latrine	Flush toilet + Blair latrine	Simple pit latrine	Bucket / pan latrine / other	None
Zambia								
Nkwazi	Ndola			0.3		93		7
McKenzie				2		98	0.4	0.3
Kalingalinga	Lusaka	1		2		87	1	9
Kanyama		0.3				83	1	16
Zimbabwe								
Newlines	Mbare	100						
Shawasha		100						
Zinyengere	Epworth		3	53		37		7
Overspill		36		6	1	54		3
Gada			35	2		61		2
Old Location	Gutu	100						
Hwiru		100						
Farmagrida						30		70
Cheziya	Gokwe	100						
Mafungautsi		6	1	26	1	48		18
Nyaradza		24		22	3	43		8
South Africa								
Mamelodi	Pretoria	6				81		13
Jeffsville		5		2		84	1	8
Cato Crest	Durban			1		96		3
Bester				100				

Over 75 percent of the respondents are worried about lack of support services, such as those for pit-emptying, which forces them to construct new Blair or VIP latrines, or unimproved pit-latrines, whenever they fill up. This is not only expensive, but it also takes up space, which is scarce in an urban environment. In cases where emptying facilities exist, the urban poor cannot afford them, as they are expensive. The Project Manager of the Bester Community Development Trust put the cost of having a VIP emptied at a staggering US$123. However, the subsidised service by the Durban Metropolitan Council costs only US$4.5, but such a service could apparently only be extended to the illegal informal settlements in the city in times of crisis.

Congested toilets in Mbare, Harare

Although figures in the table above show that 100 percent of the residents in Mbare have "access" to flush toilets this obscures the serious problems faced in this area. Toilets in Mbare are overcrowded and most of them do not flush. Up to 1,300 people share one communal toilet with six squatting holes in Newlines, Mbare. The situation is further aggravated by the absence of electric lights in the toilets and the high crime-rate. As a result, toilets are not used at night; then people use plastic bags or buckets. Unfortunately, some of the plastic bags containing human excreta are dumped in the communal skips. Those who use buckets, mix the excreta with water and poor it into the open drains. The toilets, which do not flush, are also used for the deposit of domestic refuse, resulting in blockages. Toilets block as many as 20 times per month. Since there are no drainage facilities, raw sewage flows in the streets. Sanitation problems are therefore critical in Mbare, ironically an area with '100% flush-toilet coverage'.

An unimproved pit–latrine in Nkwazi informal settlement, Ndola, Zambia

Solid Waste Management

As is the case in most developing country cities, solid waste management (SWM) is given low priority in poor and peri-urban settlements in Zambia, Zimbabwe and even South Africa. Solid waste management is a very expensive service, reportedly consuming up to 60 percent of council budgets in India (Tayler, 1997). Most local authorities are unable to establish and maintain an efficient refuse management system. This has resulted in solid waste problems in poor urban areas. There is virtually no communal collection of household refuse in any of the study areas in Zambia, in Gokwe and Epworth in Zimbabwe or in Mamelodi and Jeffsville in South Africa. Residents in these areas use refuse-pits or dump waste indiscriminately. Although most of the residents who are not

served by the authorities, use refuse-pits, these also cause problems. The high concentration of pits in these overcrowded settlements leads to breeding of mosquitoes and flies, and to foul smells. In Gokwe, children who defecate in refuse-pits further aggravate the situation. Small children use a significant proportion of the refuse pits as latrines.

Indiscriminate dumping of solid waste in Jeffsville

Research in Epworth has shown that water in most shallow wells is contaminated by pollutants from refuse pits (Blair Research Institute, 1998). In some cases the local authorities in South Africa position skips on the outskirts of the illegal informal settlements, in order to provide some welfare service. These skips, however, are located very far from the settlements and very few households bother to walk all the way to these facilities. To illustrate this point even further, only 4 percent and 26 percent of the households in Mamelodi and Jeffsville respectively said that they use the skips near their settlements. The local authorities in Zambia normally only service market places in the informal areas; they only collect refuse directly from the settlements when sanitation-related diseases, such as cholera, break out.

Even in those areas such as Gutu and Mbare where local authorities provide solid waste management services, at times refuse is not collected for two weeks or more. This is mainly due to tractor breakdown and fuel shortages. When bins are not collected, residents dump solid waste in drains, along road sides, on undeveloped stands, and in nearby bushes, all of which threaten the health of residents. Burning is the most common method of disposing of solid waste in poor urban areas. However, since the waste includes chemical containers, tyres and batteries, the smoke that is produced threatens the health of the residents.

Solid waste management is a major challenge facing all local authorities in the study

areas. The way in which solid waste is disposed of is of major concern to the residents in some informal settlements. Domestic, industrial and, in some cases, hospital waste is simply dumped on unprotected land, which is accessible to animals and children. Lack of bins in urban poor communities also exacerbates the solid waste problem and leads to the dumping of refuse on streets, in storm water drains and in open areas, resulting in pollution problems and flooding when rainfall occurs.

Urban council by-laws give local authorities the sole responsibility to provide solid waste management services in all three countries, though they are allowed to subcontract their work in Zambia and South Africa. There were no significant informal or community-based refuse collection initiatives in most of the areas at the time of the study, though a few enterprising people were said to be running some recycling businesses. Bottles, steel components, cardboard boxes and paper were being collected and later sold to recycling companies. Although households in some of the areas have taken the initiative upon themselves to sweep the streets and clear drains, the local authorities do not seem to provide any support for these initiatives.

Some factors that have led to the current state of affairs include the following:

- Lack of awareness amongst communities about waste, or about the environmental, social and economic implications of refuse;
- Lack of funds within local authorities to provide an adequate service;
- Exclusion of communities in assessing, planning and implementing solid waste management;
- Lack of research and development;
- Application of inappropriate technologies;
- Community attitudes towards waste; and
- Inadequate institutional arrangements of people and organisations responsible for refuse management.

Wastewater Management

Storm and wastewater drains were non-existent in almost all the study areas at the time of the survey. Where they existed, they were neglected and blocked and, in some areas such as Nkwazi, they had become much wider and deeper than normal, due to unchecked erosion. In McKenzie, new storm and wastewater drains were constructed at the end of 1999 by community members under a 'Food for Work Programme' sponsored by PUSH, an NGO supported by the World Food Programme. It succeeded, according to the residents, because of the incentive given in the form of food. In Zimbabwe, there are no drainage facilities in any of the study sites except Gutu growth point. During the rainy season, people have problems walking to work, since these areas are flooded. Due to the absence of storm water drains, heavy rains caused by cyclone Eline caused immense damage at Gokwe growth point. Sewer pipes were broken as the supporting ground was washed away. Deep gullies threaten the whole growth point. The

council has estimated the cost of resulting road and sewer repairs at US$300,000 and US$7,000, respectively.

Households in the study areas dispose of water used for bathing and other household purposes in the following ways:

- In open drains, where they exist;
- By the road side;
- Around their yard;
- In their garden; and
- In pit latrines.

Consequently, this indiscriminate dumping of wastewater and the absence of storm and wastewater drains in most of the informal settlements cause flooding problems, especially in the rainy season, and make the roads impassable. The wastewater that collects in ditches also provides ideal conditions for the breeding of mosquitoes and flies, which are responsible for some of the diseases highlighted below.

Sanitation Related Diseases

One of the major consequences of poor sanitation in urban poor communities is the threat of outbreaks of disease. In the study areas, the common diseases that could be linked to poor sanitation are diarrhoea, malaria, hookworms, and very few cases of bilharzia. Diarrhoea is the commonest disease suffered in all the three countries, followed by malaria in Zambia and Zimbabwe. Hookworms are common in children in all the three countries and in Kanyama the infection rate was reported to be as high as 29 percent. Annually, diarrhoea causes approximately 43,000 deaths and 3 million illnesses in South Africa, and costs millions of Rands in lost productivity (Environmental Health Policy, 1999). Absence of health care facilities in poor urban areas makes the treatment of sanitation related diseases difficult. The situation is further aggravated by discriminatory health fee policies. In Epworth, "squatters" rarely seek treatment, since they are charged twice as much as other residents.

Environmental Officers from the Public Health Departments and other related organisations rarely visit the study areas and are only heard of in times of serious outbreaks of disease. In South Africa, the Department of Constitutional Development (DCD) has invested huge amounts of money on the construction of latrines throughout the country, but only a meagre 3 percent of this is set aside for health and hygiene education. Despite the scarcity of health and hygiene education in the study areas, the majority of householders proved to be very knowledgeable about the negative impacts of not having sanitation services, or of inadequate services, though independent observations proved that they rarely practise the behaviours which they claimed to understand to be necessary.

Cholera broke out in South Africa in August 2000. Within seven months, over one hundred people had lost their lives in the scourge. It started in the rural areas of Kwa-Zulu-Natal where the majority draw water from rivers, which were unfortunately contaminated by the cholera bacteria. The disease spread to other parts of the country due to the movement of people from the affected areas; this problem was aggravated by the migrant labour system, which is still widely practised in the country. In most of the rural areas affected by the disease, there are community water supply facilities provided by the government, but many people are unable to afford the monthly charge of US$2.62. In relation to improved sanitation, the Department of Water Affairs claims that money is available; they were just waiting for households to express their demand for the service and to contribute an amount of US$23 for the construction of VIP latrines. There were cholera outbreaks in Zambia, including one of the study areas, Kanyama, at the beginning of 2001, though not on the same scale as the outbreak in South Africa in the previous year. Experience from these outbreaks suggests that health and hygiene promotion would have helped to reduce the number of infections, for example by advising the communities how to disinfect the river water cheaply, and to avoid travelling outside the infected areas, although the economic imperative might make this difficult.

Community Needs

For sanitation agencies to be able to provide appropriate, efficient and sustainable services they should understand the needs and priorities of the urban poor and design programmes accordingly. The urban poor face a wide range of problems, which they prioritise differently, given the different socio-economic environments in which they live. However, as shown in the table below, sanitation is not a very high priority amongst most of the urban poor surveyed by this study in the three countries.

The table shows that issues of high cost of living, poor roads, and lack of electricity, etc. are high priorities among poor urban communities in Zimbabwe. Although sanitation coverage is low and health and hygiene awareness is high in Gokwe and Epworth, sanitation is classified as priority number three. Only 24 percent of the respondents in Gokwe and less than 14 percent in Epworth mentioned sanitation among their top five priority issues. However, as might be expected from the state of sanitation in the densely-populated inner city area of Mbare, here sanitation is the top priority. The table shows a similar situation in Zambia and South Africa, in which sanitation is generally a low priority. Improved water supply is the most sought after service in informal settlements in these countries, except in Mamelodi and Cato Crest, where sanitation and housing were classified as their highest priorities respectively.

Summary of Household Development Priorities

Study site	Priority						
	1	2	3	4	5	6	7
Zambia							
Nkwazi	Water	Clinic	Electricity	Sanitation	Roads	Other	Phones
McKenzie	Water	Clinic	Electricity	Sanitation	Phones	Roads	Other
Kalingalinga	Water	Clinic	Sanitation	Electricity	Phones	Roads	Other
Kanyama	Water	Clinic	Sanitation	Electricity	Roads	Phones	Other
Zimbabwe							
Mbare	Sanitation	Other*	Housing	Employment	Water		
Epworth	Other*	Water	Sanitation	Housing	Employment		
Gutu	Other*	Water	Sanitation	Housing	Employment		
Gokwe	Water	Other*	Sanitation	Housing	Employment		
South Africa							
Mamelodi	Sanitation	Phones	Water	Electricity	Clinic	Roads	Other
Jeffsville	Water	Phones	Sanitation	Housing	Clinic	Roads	Electricity
Cato Crest	Housing	Schools	Clinic	Water & Sanitation	Electricity	Transport	Other
Bester	Water & Sanitation	Housing	Clinic	Schools	Electricity	Transport	Other

Note: Other concerns in Zimbabwe include high cost of living, roads, electricity, clinics, thieves, prostitution, diseases, tenure and title deeds, and postal services.

The relatively low importance attached to sanitation in the urban poor communities further complicates the quest for feasible ways to increase coverage. The complex problems faced by the urban poor, and their priorities, call for a holistic approach that tackles sanitation in the context of wider poverty alleviation. This suggests the need for a coordinated approach, involving government; all NGOs involved in education, health, food security, employment creation, etc.; and external support agencies. All involved must work together in order to tackle sanitation as one of the essential steps in alleviating poverty among the urban poor.

In Zimbabwe, household willingness to pay[2] (WTP) was determined during the surveys using contingent valuation methods. Households were asked how much they would be prepared to pay each month for an improvement in sanitation services. The results presented in the table below show that although sanitation is not their highest priority, people know that it is important and they are prepared to pay for improvements.

[2] Willingness to pay (WTP) here includes an assessment of ability to pay; economists consider that willingness without ability to pay is not 'real' and should therefore be adjusted in the light of ability to pay.

Summary of Willingness to Pay (WTP) for Improved Sanitation in Zimbabwe

	Mean WTP (US$ per month)			
	Gutu	Gokwe	Epworth	Mbare
Latrine	2.73	4.14	8.31	13.81
Solid waste management	1.26	1.36	0.47	0.42
Drainage	0.18	0.65	0.28	0.28

Exchange rate in 1999 US$1=Z$40.7

Mbare residents are willing to pay a considerable amount, US$13.81 per month, more than respondents in any other area, for improved excreta disposal and personal sanitation. This is a reflection of the fact, as already noted, that Mbare residents face a critical shortage of toilets, with only five communal toilets for an estimated 10,000 people; they are therefore prepared to pay for the construction of household toilets, if this is feasible.

Willingness to pay bids for solid waste management range from US$0.42 per month in Mbare to US$1.36 in Gokwe. The maximum individual bid, of US$16.05 per month, was also recorded in Gokwe. There were critical solid waste problems in Gokwe, where no solid waste management services existed at the time of the survey. Therefore, people expressed a willingness to pay for the introduction of household waste collection. The high willingness to pay is also related to relatively high incomes in Gokwe, where over 75 percent of residents earned more than US$134 per month. Bids for solid waste management are higher than residents are currently paying in all areas except Mbare. Low willingness to pay for solid waste management in Mbare could be linked to the poor services currently provided by the local authority. Although residents are paying monthly for solid waste management, refuse often goes uncollected for three weeks or more.

Bids for willingness to pay for drainage were generally lower than for either improved solid waste management or latrines. This may imply that residents gave low priority to drainage or that they were willing to pay less for communal facilities, without direct, tangible benefits to their own household. The highest mean bid for maintenance and cleaning of drainage facilities, of US$0.65 per month, was recorded in Gokwe, where residents face critical drainage problems. However, bids were also high in Epworth and Mbare where poor drainage is a recognisable threat to the health of the residents. Epworth is a swampy area, prone to seasonal flooding; drainage is therefore critical. Mbare is overcrowded and the provision of water without drainage results in wastewater, and at times raw sewage, flowing in the streets, especially when the toilets are blocked.

These data show that demand and willingness to pay for improvements in various sanita-

tion components is high where there are clearly related problems, and that willingness to pay to an agency, usually a local government department, is lower where existing services are poor, and therefore trust in the provider is low.

Factors that affect willingness to pay include perceived benefits from improved sanitation, tenure, trust of local authorities, extent of current sanitation problems and income. Residents are willing to pay more for facilities for their own household, than they are for communal facilities. Willingness to pay for improved sanitation is also low where tenure is uncertain or illegal. Where communities face critical sanitation problems, for example with toilets in Mbare and refuse disposal in Gokwe, they are willing to pay more for those facilities and services. Willingness to pay is also low where residents feel sanitation improvement is solely the responsibility of local authorities.

These results generally show that there is demand for improved sanitation. However, there are no institutional means through which the urban poor can express this demand. Sanitation agencies should assess willingness to pay for services and map out cost recovery mechanisms with the urban poor, which can then, hopefully, be mutually agreed.

Conclusion

The study clearly shows that sanitation services and facilities are seriously lacking in urban poor communities, and that there are numerous issues that affect the provision of sanitation in such situations. The most notable factors include: the absence of focused responsibility at national level for planning, development and financing of sanitation in informal settlements; the limited capacity for community support within the councils at local government level; and the lack of clarity in defining the roles and responsibilities of the various stakeholders. Perhaps the most significant constraint to sanitation provision in urban poor communities is the illegality of many of these areas. The lack of tenure or title deeds not only discourages sanitation agencies from providing services but also discourages households from investing, themselves, in good sanitation facilities, because of their fear of being moved on to other locations. There is an urgent need, therefore, to develop guidelines that should help bring together the thousands of poor people living in informal urban areas and the sanitation agencies who are responsible for the provision of services.

Chapter 2

Links between Agencies and Residents: the Present Reality

Currently the world community is working towards halving the number of people without improved sanitation by the year 2015 (UN General Assembly, 2001). However, these goals are set at the international level and many of those affected are unaware of such targets. Although international organisations are promoting community participation and demand responsive approaches, it is important to analyse the ways through which communities actually communicate and work with sanitation agencies.

It has been recognised for a long time that for sanitation services to be effective and sustainable they have to meet the needs which the urban poor themselves perceive (Wright, 1997). In order to achieve this, urban poor communities should be able to demand the type of services which suit their needs. This calls for effective communication between sanitation agencies and the urban poor at all stages of the project cycle.

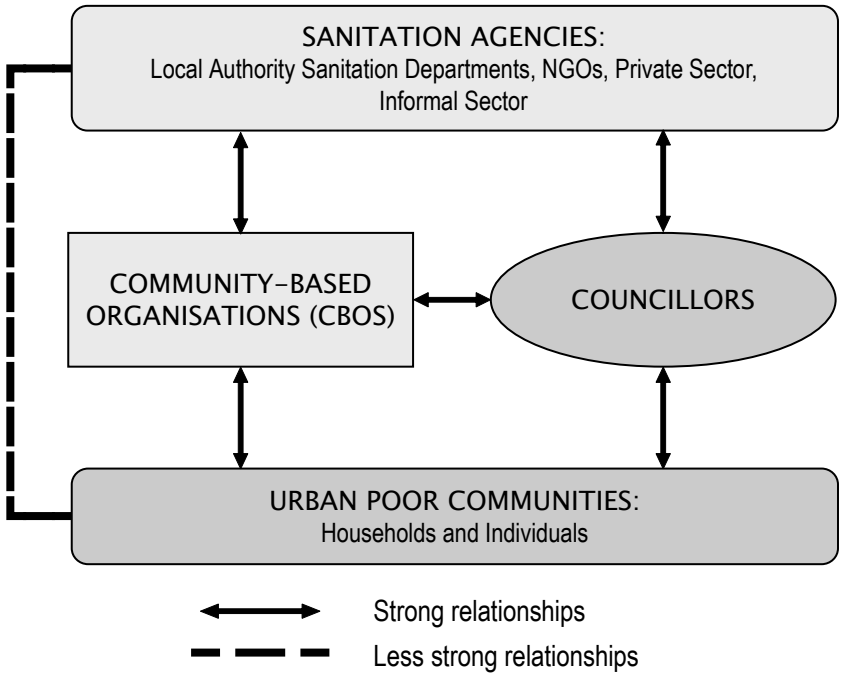
Whittington et al. (1998) advocate a new planning paradigm that requires that neighbourhood organisations and households should be involved in an active partnership with government, donors, and technical staff. They observe, however, that this partnership will not be easy to achieve because it requires that planners and engineers relinquish some of the responsibilities and privileges which they typically assume for shaping and designing urban sanitation policy and strategies. They also note that the agencies will need new staff with very different skills from the individuals they currently employ, or they will have to hire private consulting firms to provide them with the required participatory planning services.

This chapter describes the findings from the research, developed in part from the literature but in larger part from the extensive surveys undertaken in the three countries and reported in summary in Chapter 1. The findings in this chapter represent that part of the collected data which is directly related to the development of better linkages between sanitation agencies and urban poor communities. They highlight impediments to effective communication and cooperation between these two groups.

Four significant parties can be identified in relation to the provision of services and facilities in informal settlements, as illustrated by the figure below. These comprise:

- The agencies involved, including local government departments, non-governmental organisations (NGOs), private enterprises – both large and small, national and very local – and the informal sector (e.g. waste-recyclers);
- Councillors, who are supposedly elected by residents to represent their interests;
- Organisations formed within and by the local communities themselves, community-based organisations (CBOs); and,
- The poor households and individuals themselves.

Relationships between Different Groups in Sanitation Provision



The diagram illustrates the links between these parties and indicates the potential importance of CBOs and councillors in facilitating or impeding communication between agencies and communities. Whilst there can be direct links between agencies and residents, these relations are often weak and less formal than if they are conducted through CBOs and/or councillors. This is especially so because many agencies (mostly local authorities) are hampered by lack of skilled manpower and resources to enable them to undertake community programmes which allow for the participation of the local people. On the other hand, CBOs and councillors are more aware of the problems of their communities and are in a better position to represent them favourably.

This chapter first looks at how communities are organised in terms of leadership and household participation. Secondly, the relationships between CBOs and councillors are discussed. Thirdly, the links between councillors and sanitation agencies are analysed and, finally, the overall issues which affect the links between sanitation agencies and the local communities, including institutional, technological and environmental issues, and agency approaches, are discussed.

Community Organisation

Organisations which are based in and comprise members of the local community, and which are managed by them are important in the implementation of demand-led sanitation programmes. Communities which are expected to make informed choices about sanitation technology, operation and maintenance of sanitation facilities and how funds are managed and accounted for, need representative structures. All of the settlements studied in the three countries has some form of community-based organisation (CBO) created to represent the communities. However, only a small minority of the local population (ranging from just 7 percent in Kanyama, to as many as 44 percent in Cato Crest) are aware of the existence of such organisations. This lack of knowledge about the existence of CBOs is a potential barrier to the development of links between communities and sanitation agencies, because decisions that need community consensus cannot be made and implemented without many problems.

The majority of local people do not believe that their communities have the ability to initiate projects without the help of external agencies. For example less than 1 percent of those surveyed in Mamelodi believed that they could achieve this, whilst nearly 30 percent of those in McKenzie had such confidence. Very few past or ongoing projects can be attributed to community initiative without the influence of an external organisation. This indicates how ineffective most of the CBOs are in initiating work themselves. According to the officials of the Peri-Urban Section of the Lusaka City Council *'the most effective CBOs in Lusaka are those that have NGOs or donor agencies working alongside them'*. The photograph below shows residents of McKenzie participating in a PUSH sponsored food-for-work programme. The residents were given payment in the form of food for their participation in the making of roads and storm water drains.

It must be noted that without local communities believing in their ability to organise themselves, attempts to develop effective links between them and sanitation agencies are bound to fail. However, it is possible for some individuals to have a one-on-one relationship with a particular sanitation agency, depending on the service provided. In much of Latin America for instance, where sanitation agencies provide reasonable levels of sanitation service and can be relied upon, many households (even poor ones) have a direct relationship with the company. Similarly, in the urban poor areas of Zambia, Zimbabwe and South Africa, where on-site sanitation is feasible, households can have an effective one-on-one relationship with an individual or two in the community who may

construct and/or empty the pit of a household latrine.

Community organisation in urban poor settlements is complex. Unlike rural areas, many people in urban poor settlements originate from diverse places and have very different backgrounds; in contrast, their rural counterparts normally share similar backgrounds. Good community organisation and cohesion in the community is essential for the development of effective links between communities and sanitation agencies because "factional conflicts or lack of trust in the community leadership or office holders, may mean that consumers are unwilling to cooperate regardless of their felt needs" (Briscoe and de Ferranti, 1988).

Residents of McKenzie making roads and storm water drains

In all the study areas, the communities are not very united; this may have an effect on attempts to involve the households in community-managed projects. The community leaders, as well as their councillors, are unpopular with their constituents because they are perceived to be selfish and only in their positions because they want to be well-regarded by other community members. The low level of education reached by many leaders and householders has further complicated the situation, as there is no-one in the community to guide them with effective leadership in community-based programmes.

The surveys also showed that problems of community cohesion also derive from political interference and from poverty, resulting in a shortage of time available for community

participation because people are busy looking for income and food. Follow-up meetings with community leaders indicated that community leadership is weakened by its voluntary nature; this discourages effective participation by the leaders. To counter this, some NGOs in Zambia have been reported to pay community leaders for time spent on community work.

It is common for researchers and development workers to assume that communities can easily organise themselves collectively. Littlefair (1998) advises that it is important to note that populations in developing countries are increasingly mobile and dynamic in their social organisation and expectations. He further warns against the extent to which external agencies view communities as homogeneous and emphasises the differences that exist between and within communities. The box below presents the views of leaders of Chishilano Community Centre and shows some of the problems faced in community organisation in Nkwazi, Zambia.

Community Organisation in Nkwazi

This is a compilation of the views of two members of Chishilano Community Centre in Nkwazi informal settlement on community organisation.

A political structure exists in the form of ward leaders, but these leaders are highly politicised and only become active when elections approach; once they are re-elected into office they become quiet again. There is a Council Chairman in the area, and a Residents Development Committee (RDC) exists. The RDC looks at developmental issues of the settlement and several excellent projects have been identified, but unfortunately implementation has always been problematic. This has been so because it is hard to organise people in a place like Nkwazi. People claim that they have a lot of personal problems that they need to resolve first, before they can find time to participate in community meetings or projects. It is hard to identify any project that the community has come up with without the influence of an outside organisation; at the moment the dependency syndrome is deeply rooted in the people.

People in the community are generally ignorant of the roles and responsibilities of the local authorities and it appears that the local authorities are just as ignorant about their responsibilities. If communities were consulted, more fruitful projects would be implemented without wasting money unnecessarily.

Otherwise the people in Nkwazi are contented; they find themselves in such a hopeless situation that they are forced to be content with what they have.

Poor community cohesion is therefore a barrier to the development of links between community representatives, who could have the support of the majority of their people, and sanitation agencies. Without a united front it is difficult for a community to make informed choices regarding their demand for improved sanitation services.

Key Points

- Communities lack unity and cohesive organisation.
- The voluntary nature of community leadership affects the performance of leaders.
- The willingness of local communities to participate in collective activities is influenced by poor community cohesion.

The Role of Councillors

Councillors are representatives of residents in urban areas that are demarcated for electoral purposes as *wards*. In all of the three southern African countries studied, ward residents elect councillors to represent them for a specified number of years. The work of the ward councillors is to represent the people of the ward that elected them and to act in the interests of the whole area. They are expected to contribute to the governance of the area and to encourage community participation. They must also respond to their constituents' enquiries justly and without discrimination. (See for example Lodge et al, 2000, for the South African legislation).

However, this potential channel of communication between the residents of an area and the agencies who are supposed to provide services has major weaknesses. Councillors are elected on political lines and, at times, complaints are taken as opposition. In Zimbabwe, many urban informal settlements are not represented by ward councillors because such settlements are considered illegal. In many cases, councillors are not accountable to their communities because decisions on developmental issues concerning their wards are made without consultation with the community (see examples below). Many communities in the study areas feel that the delivery of services to their areas has been affected by their poor representation with local government by ward councillors.

Councillors – community representatives?

In Jeffsville, Pretoria, residents complained that their councillors recommended the construction of a costly taxi-rank in Atteridgeville, built at the expense of housing and the delivery of important services. The taxi-stand was later shunned by the commuter-taxi operators. The residents felt that they could have done without the taxi-rank and what they needed urgently were low-cost houses and access to water and sanitation services.

In Cato Crest, Durban, the communities also complained that despite the poor environmental conditions in their area, their councillors allowed the Durban Metro Council to build extravagant community facilities such as a community hall and library. The people argued that, whilst they would need such facilities at some point in their lives, what they really needed now were decent houses. An official from Cato Manor Development Association defended the construction of the community facilities, confessing that the facilities were built with a donation from the European Union, who prescribed what to build with their tax-payers' money.

Councillors, however, believe that the major problem with the communities by whom they are elected is that, not only are they impatient, but they are also ignorant of the true cost of service delivery, and many still do not appreciate the need for service payments. Councillors interviewed also indicated that communities do not realise that it takes time to plan and deliver sustainable services. They also complained that their wards are overpopulated and that it is difficult for them to consult everybody effectively. As a result, they are forced to organise occasional meetings for the whole area, but this does not allow as many people to participate as they would like. In most cases, only a few people, with a particular interest in the issue under discussion, participate in these meetings.

In Zambia and South Africa, major misunderstandings exist between councillors and CBOs. The councillors want to be in charge of the CBOs but the community members fear that this will lead to political interference by councillors who are from particular parties, whilst the CBO may have members with various political affiliations. Zambian Residents' Development Committees (RDCs) have the mandate to encourage local development and therefore often act as the entry point for donor funding and as the controllers of development projects. Councillors then feel that their authority as elected leaders is undermined.

The poor interactions between local communities and their councillors mostly relate to expectations and the delivery of services. This has contributed to poor links between the communities and the sanitation agencies. A further discussion on the councillors, in relation to these agencies, is continued in the next section.

Key Points

- Communities are not well represented by councillors.
- Communities are ignorant about service delivery requirements.
- Councillors have development priorities which are inconsistent with those of their constituents.
- Donors impose project choices on communities

Working Relationships between Councillors and Local Authority Administrators

Given the perceived lack of effective community involvement in the work of local government, local councillors, particularly those from urban areas, have an important role in ensuring meaningful participation, by bringing together the community and the authorities. Councillors have the responsibility to transmit community priorities to local government officials; therefore the relationship between them and the officials is an important determinant of the extent of participation. A good relationship between a councillor and his or her local authority could lead to effective community participation in the selection, planning, implementation and operation of appropriate sanitation facilities. Such participation in all of these stages appears to be essential for sanitation programmes to be sustainable.

Working relationships between councillors and local authorities are difficult at present, because of differences in their understanding of their roles and responsibilities. The local authority officials feel that the councillors' limited technical knowledge makes it difficult to convince them of the need to service communities with cost effective and feasible technologies. In addition, because of limited periods in office and, in South Africa, the relatively recent introduction of a new structure for local governance, many councillors do not have a good understanding of the structure and ways of working of the local authorities with whom they should be working. Councillors have a tendency to promise their communities services that are too costly to achieve or not essential. Pressure from the councillors therefore forces local authorities to provide conventional means of sanitation, such as waterborne flush toilets, which poor people usually find that they cannot afford to operate. The high capital cost of conventional sanitation systems also limits the potential for sanitation agencies to extend services to all areas under their jurisdiction.

Councillors were also branded by local authority respondents as politicians who have the responsibility of safeguarding the interests of their respective political parties. They are alleged to operate according to the short-term, expedient interests of political survival and the good of the political party which they represent, rather than the long-term interests of the community which elected them. Political interference continues to defeat the concept of decentralisation that central governments have been striving to achieve. There are cases where feasible service programmes are criticised by councillors from opposition parties simply because they do not want the ruling party to take the credit for improved services. In cases where councillors are unpopular with their community, the councils are forced to work with the communities directly, although this is very difficult to achieve.

The study found that although some breakthrough has been achieved in improving relationships between local authorities, councillors and communities, there is still a considerable breakdown in communications between local authorities and central government, which is the policy-maker. Policies, as we have shown in Chapter 1, tend not to reflect the real needs of local communities. To resolve such an impasse, there is a need

for the establishment of a consultative exchange, bringing together local and central government across professional boundaries and including a range of stakeholders and community representatives.

Despite the fact that the need for meaningful consultation between councillors and local authorities is appreciated by many people in all three countries, there are still problems in this area. There is a need, therefore, for changes in attitudes amongst both parties. Most especially, change is needed amongst councillors, who in most cases think that they know what the public want, but all too often show that they do not represent the best, long term interests of their constituents.

Key Points

- Working relationships between councillors and local authorities are problematic.
- New councillors do not understand the operations of local authorities.
- Councillors are partisan politicians.
- Councillors are not knowledgeable about developmental matters.
- Relationships between central and local government are often poor.

Links Between Communities and Sanitation Agencies

Literature based on international experience indicates that community participation in designing, implementing, and management of sanitation projects is key to sustaining sanitation coverage for urban poor communities. Without an alert and active citizen body, notes Beetham (1996), agencies will not be representative, responsive or accountable, nor will they enjoy the full legitimacy that comes from popular authorisation.

Over the last decade, communities have been involved in the provision and management of improved water supply and sanitation in rural projects with varying success. This strategy, however, has only recently been applied to urban water supply and sanitation, mainly through the efforts of NGOs who have been implementing projects in the peri-urban areas. Community participation as a basis and as a concept for promotion of development activities is proving to be a key factor underpinning the sustainable delivery of social services, globally. One argument in favour of this is that, with limited resources available, communities have to become actively involved in managing projects which concern their well-being, if they are to improve their own situation (Abbott, 1996; see also Korten, 1996, and UNCHS, 1996). This argument is in agreement with the Dublin principles, which advise that stakeholder involvement is essential to the sustainability of services and to the DRA principles which advocate that management should be focused

at the lowest appropriate level (see Wright, 1997).

This study found that sanitation agencies are not accountable to communities in the urban poor settlements of Zambia, Zimbabwe and South Africa. Ideally, residents should be able to communicate directly with sanitation agencies, especially those with community service departments. However, most local authorities do not have community service departments. Where these do exist, many informal settlements do not have access to such departments since they are considered to be illegal, especially in Zimbabwe. In some cases, agencies involved in sanitation in the three countries, especially NGOs, have carried out a number of household surveys in informal settlements. Although these exercises generate crucial information for planning, the communities do not have the power to ensure that such surveys lead to improved services. In most cases surveys function as an extractive process, in which researchers draw information from respondents, without ensuring that the findings result in improved welfare. *"We are tired of being asked for information, and filling-in forms, yet nothing materialises"* complained Mrs Gondo, of Mbare district, Harare, when the survey for this study was being carried out.

Knowledge of sanitation agencies amongst local people varies, but is generally poor. Over 50 percent of the respondents in both Zambia and South Africa, for example, are not aware of the agencies which are responsible for the provision of sanitation services in their areas. However, the majority of the respondents in both countries identified some NGOs that were operating in their areas or in the neighbourhood, although not all of them were involved in improved sanitation programmes. As NGOs appear to be quite well established in the urban poor communities, targeting such organisations in the development of links should help to break the barrier between communities and sanitation agencies.

Some private sanitation companies are operating in the three countries studied, but most of the people are ignorant of them because they only operate in the formal and affluent areas. In the poorer areas though, there are some individuals who offer their services to build latrines for willing households at a cost. The people who offer these services are, however, not organised and often have limited technical skills.

Links between government, sanitation agencies and the communities are non-existent or weak in almost all the study areas in Zambia, Zimbabwe and South Africa, as the survey results show in the preceding chapter. People feel that it is very difficult for them to work with sanitation agencies because of a lack of communication channels between themselves and the sanitation agencies and, especially, because apparently nobody has actually ever approached them to discuss these issues. Local government has a bad reputation with many communities; as a result many feel that they need to take a cautious approach before allowing themselves to work in partnership with them. The communities are disappointed with promises that have been made over many years, for improved services in their areas, that have never been implemented.

Local authorities in Zambia and South Africa have now formalised the principle of

community participation as a strategy for implementation of development programmes in the low-income, peri-urban areas. The formation of Residents' Development Committees (RDCs) in peri-urban areas in Zambia, and of Planning Zone Forums (PZFs) in South Africa is meant to facilitate the process. However, local councils do not recognise the legitimacy of these community-based organisations, where they exist in illegal, informal settlements. Even where settlements are legal, the development agencies do not consult these local organisations. In South Africa, for instance, the choice of sanitation technology is still decided by government or implementing agencies, without consulting the Planning Zone Forums.

The positive developments experienced in some informal settlements in Zambia and South Africa are yet to be found in Zimbabwe, because of the government's stance that considers that all urban informal settlements are illegal. This has totally eliminated any hope for the development of links between these urban poor communities and the official sanitation agencies. Although Residents' Associations are vibrant in formal urban areas they are non-existent in most informal settlements.

The most common type of community-based organisation in informal settlements in Zimbabwe is the Neighbourhood Development Committee. In most cases, these committees are created by NGOs working in informal areas, and are not part of the local authority or municipality structure, which is their main weakness. Therefore, although NGOs have successfully implemented projects with neighbourhood development committees, this work has not influenced the nature of the relationship between the urban poor and local authorities. For example, a number of NGOs have successfully implemented water and sanitation projects in Hartcliff, on the outskirts of Harare, but this settlement is still considered to be illegal by the municipality. Because of its illegal status, all structures, including clinics and schools, in the settlement are supposed to be temporary. Consequently, conditions in the settlement are still deplorable, despite years of NGO investment.

Although there is some evidence of participation by residents in the provision of water and sanitation facilities in Zambia, in almost all such cases the projects have been initiated and supervised by external organisations (see box below). The communities rarely contribute any funding towards these projects because they are fully funded by external organisations; the only notable contribution by the communities is in the form of labour. The food for work programme sponsored by PUSH, in which people participate by providing labour, in return for food, cash or other material incentives, is an example of this. The problem with such programmes is that people have no stake in prolonging activities when the incentives end.

Interview with the Director of the Peri–Urban Section of Lusaka City Council

***Q:* As a local authority, what sort of relationship do you have with the informal settlements apart from the Residents Development Committees (RDCs)?**

A: Not all the RDCs are effective in the informal settlements and in some cases we have even been forced to organise meetings in communities on our own because communities in some settlements are not very united.

The major problem we have in terms of having effective relationships with informal communities is with the councillors. The councillors feel that we by-pass them and that the RDCs have got more connections with the donors and NGOs than them. We are still trying to solve the wrangles between the RDCs and the councillors and every day we get complaints from either side. According to the RDC Constitution, the councillors act as ex-officio members of the RDC, but the council passed a resolution that councillors should chair the RDCs and the RDCs have refused. We are currently preparing a report to management on how best to resolve the impasse. To make matters worse, both the councillors and RDC officials are unpopular with the communities because the communities feel that they are never consulted on key issues and they are generally inadequately represented.

***Q:* How do you think this problem should be resolved?**

A: I think all the stakeholders need to come together and talk because the problem they have is that they look at each other with suspicion. We are taking up this problem seriously and we hope that with our assistance the problems could be resolved amicably. We intend to do this by organising workshops with all the stakeholders and hopefully we will come up with a more lasting solution. We have been unable to do much for the communities because we are understaffed, we lack skilled people and we are financially strapped and depend on donor support for most of our operations.

(The problem that the community organisations face with the councillors is surprisingly similar to that faced in South Africa.)

Institutional Issues – Structures, Policies and Roles

Institutional arrangements affect the nature of the relationship between sanitation agencies and poor urban communities, which in turn affects the provision of sanitation services. The structures and modus operandi of sanitation agencies, especially those within government structures, are very different from the ways in which poor urban communities are organised in the three countries studied. Whereas local authorities have formal and clear structures and reporting systems, based on government acts or by-laws, community structures are informal and based on a wide range of factors that

include religion, culture, tradition and politics. In most cases, local authority employees work according to rigid procedures and upward reporting systems, which do not include explicit responsibility to their 'customers'. This makes it difficult for them to communicate with poor urban communities. Reporting systems and chains of command within local authorities are vertical and allow only limited community participation.

Insufficient accountability to the local electorate is the obvious weakness of the local government system as it currently operates in Zambia, Zimbabwe and South Africa. The problem is that departments that were put in place to oversee community participation lack the necessary capacity to coordinate community projects efficiently with other departments. In addition, there are very few, limited training programmes set up to educate local authority staff about community participation issues. There is no indication that this situation will improve in the near future.

Communities tend to be considered simply as customers by sanitation agencies and not as partners in development. Treating citizens simply as consumers removes any influence that they might have concerning political decisions about priorities in the use and distribution of resources. Such decisions are treated simply as a managerial prerogative at the level of the local authority. However, some NGOs do involve communities in discussions about sanitation technologies and implementation procedures. In cases where the local authorities have worked in partnership with NGOs there have been some elements of community participation. According to the Director of the National Department of Health in South Africa, his department has started employing the PHAST (Participatory Hygiene and Sanitation Transformation) methodology in all their health campaigns and projects because it encourages and promotes community participation.

Participatory Hygiene Promotion

A project being undertaken by Care Prospect in Kanyama, Lusaka, is an example of the use of participatory hygiene promotion, where a number of community members are taught skills as health promoters, and later share their knowledge with others in their respective zones. These health promoters were particularly helpful in improving the awareness of local people during the outbreak of cholera in Kanyama in 1999.

The box below describes the initiative by the Durban Metropolitan Council to involve community members in solid waste management.

Solid Waste Management in Informal Settlements

In South Africa, the Durban Metropolitan Council has sub-contracted solid waste management services to small entrepreneurs in informal settlements. The small company called Noma and Dombi Cleaning and Catering Services is an example of this.

Noma and Dombi Cleaning and Catering Services is wholly owned by two local women in Bester. The firm has been contracted by the Durban Metropolitan Council, since 1998, to collect household waste from around Bester, for a fee. The company employs 17 women who help in the weekly distribution of black plastic bags and collect the waste dumped by households in selected locations around the settlement, carrying it to skips. Every week, the Durban Solid Waste trucks collect the refuse from the skips.

It is the responsibility of the households to make sure that they pack their domestic waste in the plastic bags and take them to the selected dumping points closest to their homes. Waste collection is carried out on different days in the various areas of Bester. When the service had just begun, many households did not stick to the waste collection timetable and dogs and cats would tear the plastic bags, resulting in refuse spreading out. This has, however, been resolved by intensive civic education in the area. Now people know that even when their plastic bags fill up prematurely, they have to keep them in their yards until their collection-day comes. In cases where residents' plastic bags are torn on the way to the dumping points in their areas, the residents are encouraged to leave the plastic bags on the footpaths where the workers would pick up the contents up in wheelbarrows and wheel it to the skips.

This method of providing services to the urban poor has proved successful in Durban; other local authorities are believed to be planning similar programmes. There are also plans in Zambia for some agencies to try out similar approaches; Care Zambia has already managed to do so successfully in two settlements. In Kanyama, the Lusaka City Council occasionally employs women to carry out solid waste collection in the area, as well as to clear the water drains. There are no data yet that show how effective this project has been, though some residents have claimed that the Lusaka City Council prefers to use women because they can be more easily manipulated than male labour.

At community level, various programmes supported by government, donors or NGOs involve communities in different ways and at different stages of the project cycle. This has caused confusion about community roles and reduced community empowerment, which is necessary for meaningful participation in development interventions. The different objectives of donors and NGOs have further exacerbated this predicament. Some donors and NGOs aim to achieve full cost recovery from community projects whereas others are only interested in offering a charitable service, as is the case in the example of

PUSH in McKenzie. These inconsistencies act as a barrier to the implementation of the DRA methodology in sanitation programmes.

Cholera in Johannesburg

In February 2001, the Johannesburg Metropolitan Council fought running battles with the residents of Alexandra, living on the banks of the cholera-infected Juskei River. Despite the dangers of being infected with cholera, the residents claim that they were not happy at the way the evictions were handled. They were not consulted at all and were being relocated to places that were very far from their workplaces and from schools for their children.

Unlike Zambia and South Africa, no sanitation policy exists in Zimbabwe which clearly states the roles and responsibilities of the different government ministries and departments, or of the NGOs working in informal settlements. At growth points, the respective roles and responsibilities of the Central Rates Fund (CRF), the Department of Public Works, and the Rural District Council (RDC) are unclear, resulting in overlaps (three organisations providing the same service) and gaps (no services provided at all). The government also plays the three potentially conflicting roles of financier, implementer and regulator. This not only makes it difficult for the government to provide efficient, decentralised services but also makes it almost impossible for the government to enforce pollution control regulations, since this potentially entails one government department prosecuting another. The urban poor have no legal grounds to sue local authorities for pollution.

This contrasts with the situation in the Zimbabwean rural water and sanitation sector, as described below, in which an effective National Action Committee, with a National Coordination Unit, operates to plan and coordinate activities in the sector.

Management and Coordination of Rural Water Supply and Sanitation in Zimbabwe

During the United Nations International Drinking Water Supply and Sanitation Decade (1981-90) the Zimbabwean authorities realised that rural water supply and sanitation are integral parts of an interdisciplinary sector requiring the involvement of several different agencies. The following agencies were involved in the provision of water and sanitation services:

1. The Ministry of Local Government, Rural and Urban Development (MLGRUD)

2. The District Development Fund (DDF)
3. The Ministry of Energy, Water Resources and Development (MEWRD)
4. The Ministry of Health (MoH)
5. The Ministry of Community Development and Women's Affairs (MCDWA)
6. The Ministry of Lands, Agriculture and Rural Resettlement (MLARR)
7. The Ministry of Finance, Economic Planning and Development (MFEPD)
8. Local Authorities
9. Local Communities, and
10. NGOs and international donors

As a first stage of a process aimed at effective coordination, the various agencies mentioned above were given clear roles and responsibilities. The MLGRUD was given overall responsibility for the national coordination of the sector and to chair the National Action Committee (NAC). In order to ensure effective coordination, the National Coordination Unit (NCU) was created as the secretariat of the NAC. The DDF was given the technical responsibility for drilling boreholes, construction of small dams, and maintenance of all rural water supplies. The MEWRD offered technical and engineering services such as designing dams. The MoH was the lead agent for health and hygiene promotion and rural sanitation. The MoH was also responsible for shallow well development and the protection of springs. The MFEPD coordinated government and donor finance. The MCDWA motivated and mobilised communities, while local communities provided locally available materials, financed operation and maintenance, and participated in the siting of water points. Given the number of agencies which were involved and the large-scale nature of the programme, efficient coordination and management of the sector was critical to ensure that objectives were met. The NAC and the NCU were created to plan and coordinate activities at the national level. At the Provincial and District levels, Water and Sanitation Sub-Committees were created, including representatives of all involved agencies. At the Ward and Village levels, Ward and Village Development Committees were created. A water point committee was also formed for each water point. The success of rural water supply and sanitation programmes in Zimbabwe was to a large extent due to the effective coordination of the activities of all involved agencies (IWSD, 2000).

In Zambia, all the sites that were surveyed have been legalised, though they are yet to start receiving any service from the government or local authorities. The failure to extend services to the legalised urban poor settlements has been attributed to lack of funds and the local authorities have started soliciting funds from the donor community to ease this problem. The box below describes how NWASCO, the national water and sanitation regulator, will attempt to give support, through subsidies, to agencies which work in poor settlements. The Bester and Cato Crest settlements have been legally recognised by the Durban Metropolitan Council in South Africa and already, due to their legal status, some development is taking place. However, the existence of sanitation legislation in both Zambia and South Africa has not yet been fully utilised and implementation of the new framework provided by this legislation is still facing some teething problems.

"The extension of sanitation services to the urban poor is unlikely to be a priority"

"In Zambia, NWASCO, the water and sanitation regulator, in regulating water supply and sanitation agencies, will require them to extend their services to the low-income areas. However, given that the quality of service even in the formal settlements has been very poor, and given the current economic realities, the extension of sanitation services to the urban poor is unlikely to be a priority to most service providers. In addition, the unique challenges of the informal settlements discourage most providers. To that end, NWASCO will be developing guidelines for service provision to the low-income areas. It is also in the process of establishing a 'Devolution Trust Fund' which service providers could access to extend services to the urban poor. The DTF will be used as a regulatory tool accessible to deserving providers only."

Information given to this study by Mr Rees Lusajo Mwasambili an Inspector at NWASCO (National Water Supply and Sanitation Council) in Lusaka.

In addition to limited information about the development plans of local authorities, the urban poor are unclear about the roles and responsibilities of the different agencies, particularly the local authorities and NGOs. This has resulted in the urban poor considering local authorities as the suppliers of services and themselves as ratepayers. However, local authorities do not have the necessary financial resources and, due to restrictive regulations and misconceptions about roles, communities do not undertake meaningful initiatives to improve their circumstances. As a result, no services are provided in poor urban areas. The situation is further aggravated by the fact that in some cases communities pay for services which are not provided. Civic education is needed to clarify the roles and responsibilities of all agencies working in poor urban areas (local authorities, NGOs and external support agencies), those of the urban poor themselves, and their own organisations and representatives.

The lack of understanding, communication and coordination in relation to sanitation facilities and services in informal settlements can be combated by more community participation and civic education, by clear sanitation policies and by decentralisation. NGOs and CBOs can act as effective mediators between urban poor communities and local authorities, if local political interference can be avoided. A simple organisational structure, together with capable and competent management, is also necessary to ensure effective service delivery and transparent budgeting and cost recovery.

Technological and Environmental Issues

Alongside their differences over institutional issues and financial matters, sanitation agencies and the urban poor also have different views about sanitation technologies.

Whereas sanitation agencies and the authorities to whom they are responsible are more concerned about the effectiveness of a technology in blocking disease transmission routes, and about the safety implications of the facilities provided, the urban poor are interested in privacy, convenience, status, aesthetics and affordability. This has resulted in sanitation agencies putting in place standards to ensure that technologies are safe and that they serve their intended health-related purposes. Unfortunately, this standardisation limits community choice and tends to push the cost beyond the reach of the poor. In addition, communities often use technologies for purposes other than those for which they are designed. For example, a Blair latrine may not only be used for excreta disposal but is often also used for bathing and inappropriate and sometimes dangerous disposal of refuse and hazardous waste. It must be noted that inappropriate incentives and inappropriate technical training are both likely to have a big impact on the technical choices that local engineers make. For some discussion on incentives, in the context of strategic planning for urban sanitation improvements, see Tayler et al. (2003).

Community members are concerned about the removal of waste from their household environment, but sanitation agencies are correctly worried about the whole community, the city and the larger environment. Therefore, agencies may promote a single technical solution to connect the whole city, for example by sewers or an integrated solid waste management system. Requirements to achieve community and city-wide environmental and public health benefits need to be explained to local people and discussed with them, in order to try to gain their support for the broader aims of the urban authorities and the consequent costs.

Whereas standards are necessary to ensure that facilities are safe and serve the intended purpose during their lifetime, standardisation of technologies may push the cost of even simple, low-cost technologies above that which the urban poor can themselves afford. For example, the cost of a standard Blair latrine in Zimbabwe is about US$80, yet on average urban poor households earn only US$81 per month to cover all their needs. However, in Zambia, it has been calculated that the total cost of a well-constructed VIP latrine is as much as US$900[3], which is well beyond the capacity of virtually everyone living in informal settlements. High costs may also sometimes be associated with national subsidy programmes which are forced to set standard costs and therefore stifle local innovation and competition, which could bring down costs. It was also reported during interviews that high national unit costs are associated with corruption amongst technical staff who are responsible for signing-off on the construction of publicly funded facilities.

Links are needed between policy-makers, planners, designers and users in order to ensure that technologies meet the needs and capacity of the urban poor. This can be achieved through community participation not just in choosing, but also in designing technolo-

[3] The total cost of a well-built VIP was approximated by the engineers of CARE PROSPECT in Lusaka, including programme support costs and overheads, which are too often not accounted for in quoted costs.

gies. Involvement of the community may also help agencies to devise more durable technologies that could help to alleviate the problem of vandalism that is so rampant in poor urban settlements. Sanitation agencies should aim to ensure that cost-effective back-up services are available for procedures such as latrine pit emptying, since communities are concerned about operation and maintenance.

Sanitation technologies should aim to minimise environmental pollution. Poor urban areas are usually located in environmentally sensitive areas, such as on steep hills, in low-lying, swampy areas, and in flood-prone areas close to rivers. In such environments, inappropriate technologies may easily result in the pollution of either underground or surface water. The provision of improved water supplies without drainage can worsen flooding. Latrine pit emptying can pollute the environment if excreta are disposed of in gullies, streams or on empty space at the edge of the neighbourhood. The same applies with the final disposal of industrial, hospital, and domestic refuse. Activities associated with sanitation projects, such as brick-making for latrines, can lead to extensive soil-erosion and the depletion of vegetation in poor urban areas. By engaging in careful discussion with all parties when facilities are planned, these problems can be avoided.

Sanitation Agencies: Approaches to Sanitation Development

It is clear that local government sanitation agencies in the three southern African countries surveyed still use the traditional, supply-led approach, which involves top-down decision-making, based on a master plan, to tackle infrastructure problems in both informal settlements and other parts of the town or city under their jurisdiction. Experience worldwide has shown that this approach is not successful in informal settlements, especially when attempting to tackle sanitation, which requires consideration of delicate socio-cultural issues. It is widely recommended that more flexible, demand-responsive approaches should be adopted in these situations. Intensive civic education programmes may be needed in poor urban communities to introduce them to the demand responsive approach, their role in it, and its benefits. At the same time, very substantial retraining of local authority staff will almost certainly be necessary, in order to reorient them into this new way of thinking and acting.

The planning and budgeting processes of sanitation agencies are designed as part of a supply-led approach. Sanitation investments are based on a Master Plan, which is prepared by professionals with little or no local involvement. Complicated and expensive technologies, such as waterborne sewerage systems, are normally recommended in urban areas. In order to ensure that these technologies are safe and function well, standards are set. Standard procedures are then laid down to ensure that technologies meet the set standards. Since the professional planners and designers assume that local community members do not have the necessary technical knowledge, they involve the end-users in only a minimal role in the planning, design and construction of such investment projects. As a result, local skills and knowledge, related to the pre-existing sanitation situation and the community's needs, wishes and capacities, are not utilised. Unskilled

labour is sometimes recruited from the local community, to assist in construction, but the much larger local knowledge resource is unused.

In South Africa, a high cost technology such as waterborne sanitation is being provided through the Reconstruction and Development Programme (RDP), even to poor households who cannot afford to pay for installation and operation of such services, and where water supplies are inadequate. Due to the use of poor materials and construction, many households have complained that the toilets leak after flushing, wasting water for which they have to pay; at the same time, the households are expected to pay for any repairs that are carried out to the system on the household side of the water-meter.

Reform of structures and ways of working is necessary before local authorities can adopt demand-responsive and participatory approaches. A large investment of time, energy, commitment and funding will be necessary to develop and introduce new approaches and to retrain staff to understand and implement these approaches. This cannot be done quickly – old practices are deeply engrained and an imaginative approach will be needed to bring about real change.

Although many NGOs are active in this sector and now use participatory approaches, they operate with various and at times conflicting cost recovery mechanisms. For example, some NGOs subsidise latrine construction by giving free cement, vent pipes and fly screens. On the other hand, other NGOs ask households to cover the full cost of latrine construction. Others also promote dependency by giving away free food and clothes or by paying school fees for some children. Since all these different approaches have been applied to the same community, most households will naturally resist projects that expect them to contribute something. Governments need a clear policy on the roles and responsibilities of different players and should act to coordinate the activities of all agencies, including NGOs, working in the development of sanitation in poor urban areas.

Sanitation agencies take a project approach, where activities are aimed at achieving project targets. One organisation may be focusing on increasing sanitation coverage while others focus on health, education etc. Yet communities face all these problems at once and prioritise them differently. It is important to understand community needs and priorities and to involve local people in the planning and implementation of both sanitation and other projects in their areas. Furthermore, there is a need to link and co-ordinate developmental projects in poor urban areas since they are all trying to improve the welfare of the same households. Common and complementary strategies and approaches are needed, rather than the competitive, conflicting and secretive ways of working which still prevail too often at present. The authorities need to take charge of this coordination of both governmental and NGO activities in informal settlements and to attempt to foster a spirit of collective learning from both successes and mistakes.

Local authorities make long-term plans aimed at providing services to the whole city or town. In order to achieve their objectives they embark on large-scale projects. On the other hand, community members are more worried about localised removal of waste

from their households, which requires small-scale projects. The large-scale nature of government projects also makes it difficult for communities to be involved in their management. Most of the construction work, which must meet the set standards, can only be done by large, formal, private companies. As a result, the local informal sector is not involved, resulting in loss of income.

Demand-responsive and participatory approaches, and techniques such as PHAST, can improve community participation in sanitation projects in poor urban areas and enhance their effectiveness. Since communities face a wide range of problems whose root cause is poverty, sanitation projects should also be used to create employment for the urban poor, in construction, operation and maintenance, as a means of alleviating poverty.

Key Points

- Though the need for community participation is appreciated, decisions are still made on behalf of communities.
- Councillors do not consult the communities.
- There are no clear communication lines between communities and local authorities.
- Units which aim to promote community participation are understaffed and lack resources.
- Communities are suspicious of local authorities, resulting in poor relationships between them.
- Donors, NGOs and local authorities involve communities in programmes in different and sometimes opposing ways.
- Communities do not participate adequately in matters affecting their livelihoods.
- There is poor community leadership and organisation.
- All community projects are initiated by external agencies.
- There are poor relationships between councillors and CBOs and no clear communication channels.
- Some CBOs are not recognised by the authorities.
- Communities lack capacity to manage projects.

Conclusion

This chapter has indicated that there are many weaknesses in the interaction of the urban poor with sanitation agencies in Zambia, Zimbabwe and South Africa, and many issues that need to be addressed in attempting to develop better links between them. Surveys in the study areas show that the current difficulties, resulting in ineffective links between communities and sanitation agencies, are unlikely to be resolved in the near future. Discussion with local people has indicated that respondents do not feel that their communities are capable of initiating and running projects without the help of external organisations. Without communities having faith in their own potential, and whilst sanitation agencies lack capacity to guide communities effectively, demand responsiveness is compromised.

For participation to succeed, it depends on the structures and capacities put in place to facilitate community empowerment. It requires democratically elected civic structures, which are competent to manage the services established on behalf of the community. The leaders have to be strong enough to promote community cohesion, while the structure and policy-framework should empower the ordinary community members to have a meaningful role in decision-making, holding the leaders and the system accountable and participating in the development of programmes. This, however, is not the case in most of the informal settlements in Zambia, Zimbabwe and South Africa.

At community level, different programmes, especially those supported by NGOs and other donors, involve communities in different ways and at different stages of projects. This has caused confusion about community roles and reduced the level of community empowerment. There is a need to harmonise approaches to community participation at the local level, in order to maximise the impact of any interventions that may be undertaken. Local governments also need to develop their capacity so that they can develop appropriate local solutions, in partnership with community organisations formed by low-income groups in their settlements. It must be noted that the active involvement of the community, in what has traditionally been a public sector responsibility, also requires a more relaxed approach, and legal and regulatory frameworks need to change to reflect this.

The final chapter offers some recommendations concerning how links between the urban poor communities and sanitation agencies might be developed successfully, both through a more conducive institutional context and through more specific recommended activities.

Chapter 3

Lessons for Improved Practice: Building Better Links

The following recommendations for good practice in urban sanitation are based on the data collected in a recent study undertaken in Zambia, Zimbabwe and South Africa. The findings of this study are summarised in the earlier parts of this book. The resulting recommendations attempt to indicate many of the key issues that need to be addressed in order to bring about more effective and sustainable sanitation for poor people living in urban informal settlements. These recommendations should not be treated as standards, but should help in the process of reflection and in the development of better programmes, based on partnership between agencies involved in sanitation and the communities and families that they serve. They should be applied with due regard to the prevailing local conditions.

The recommendations are arranged according to the following themes, as introduced in Chapter 2:

1. Community organisation;
2. Links between communities and councillors;
3. Working relationships between councillors and sanitation agency administrators;
4. Links between communities and sanitation agencies.

The recommendations are not only based directly on analysis of the issues raised in Chapter 2, but are also drawn from the wealth of field observations and findings raised throughout the book. No timescale is given in the recommendations because this may vary according to the existing situation in a particular community, and depending on the capacity of the respective sanitation agencies. Whilst it is hoped that some of these recommendations could be implemented rapidly, in some circumstances, we also recognise that others are long-term objectives that will not be achieved in many years. Nevertheless, in order to bring about improved sanitation that responds to the needs of all users, we believe that all of the issues raised here need careful consideration by policy-makers, planners and project implementers.

The first three sections of the recommendations introduce the range of broad factors which need to be considered in the development of effective links between sanitation agencies and urban poor communities. They should provide the necessary socio-political context for successful sanitation programmes. The fourth section gives more specific recommendations on how best to build links between sanitation agencies and the communities, ranging from the need for a national commitment and policies, to the requirements for civic education amongst poor communities and for sanitation to be seen as a vital component of efforts for poverty alleviation.

Community Organisation

It is clear that effective, representative organisation of the households and individuals who comprise a community is key to improved communication between those people and the agencies who should be working with them to achieve improved services. This section provides some suggestions that may lead to more effective community organisation.

- ***Community members must be aware of the aims and objectives of the organisations based in their community***

  In this way, such organisations will have greater legitimacy and, hopefully, the support of the entire community; this should also increase accountability. Full participation by all members is, however, impossible. A practical alternative is for community-based organisations (CBOs) to set up a procedure that allows for maximum input by community members through the demarcation of the larger community into smaller zones. Each zone should then in turn be represented by a few people who are responsible for collecting information on the particular needs of their zones and their findings should be circulated for feedback and presented to the leaders who are in charge of the entire community. Similar practices have started taking place in some urban informal settlements in Zambia and South Africa and the results appear positive so far. The concept of zoning of communities gives an opportunity to the majority of the members of the community, including those with less influence, to express their views.

- ***Community leaders need to be well informed about community development issues and have the capacity to organise their respective communities.***

  Where this is not the case, capacity building programmes should be developed by appropriate agencies so that the leaders are able to run their CBOs effectively. As governmental and private sanitation agencies have neither the resources nor the flexibility that is needed to help community members to develop their capacity, their efforts can be supplemented by NGOs, as is the case in some parts of Zambia, where organisations such as Care have taken this initiative.

- ***Community leaders must be accountable to the members they represent in order to be trusted by the people they lead.***

  In all the areas surveyed, the community leaders were perceived by their constituents to be motivated by selfish objectives and in their positions for prestige, rather than for the purpose of serving the people. Community members should try to ensure that their leaders are not only responsive to the needs of a few influential members of the community but to all residents. In the three countries studied, the rich and the privileged in the communities are normally opposed to any efforts that are likely to threaten their power and prestige. This therefore presents a significant challenge.

- ***Well organised CBOs should consider the feasibility of remunerating community leaders, as voluntarism discourages leaders from performing their duties effectively.***

  If not correctly carried out, this exercise may, however, bring about further divisions between communities and the leadership because it may invoke feelings of jealousy towards their leaders, particularly as a large proportion of people in urban informal settlements are unemployed. Nevertheless, transparent remuneration should provide an incentive for improved performance that would be recognised by community members.

- ***Urban poor communities are not as homogeneous as many sanitation agencies consider them to be.***

  Although people living in urban poor settlements may have common characteristics, it is important to note that individual households may differ from one another in many ways, including their political affiliation and cultural heritage; these may, in turn, affect the organisation of the community. Only through improved understanding of the communities with whom they are working can sanitation agencies define appropriate solutions, including relevant technologies, financing systems and development processes.

- ***Time and lack of information about community activities are major barriers to community involvement.***

  Timing and venues of meetings must be convenient for community members. If these are not appropriate, very few people will be willing to participate in the meetings. It may be necessary to organise separate meetings for different groups within the community, for example for working men, or women, at times that are suitable for that particular group. Meetings should be advertised as widely as possible, including the venue, time, purpose and agenda, so that the entire community is aware of them.

- ***Communities must become more proactive in stating their demand for improved sanitation services from their respective sanitation agencies, in line with demand responsive approaches.***

  Community participation is a 'two-way street'. Any successful participatory process requires not only efforts by sanitation agencies to engage their communities, but also

willingness and capacity on the part of those to be engaged. Community leaders must work together to identify their community's sanitation needs. The leaders also have a responsibility to share information with sanitation agencies about these needs so that the agencies can make appropriate decisions about programmes and services. Just as sanitation agencies will benefit from understanding the needs and interests of the community, community members may also benefit from understanding the constraints under which these agencies operate.

Links between Communities and Councillors

As highlighted in Chapter 2, councillors are becoming key representatives of local, urban communities, but many problems have been found in this function. This section offers some suggestions on how to develop effective relationships between councillors and their constituents.

- ***Because of their political influence, councillors are critical stakeholders in the development of links between sanitation agencies and communities because of their political influence.***

  Councillors' roles are wide and varied but the following are critical:

  - ► To facilitate open communication between sanitation agencies and the community.
  - ► To provide leadership to the community and, at the same time, to strike a balance between their duty to represent the special interests of residents and the objectives of the broader community.
  - ► To review the performance of sanitation agencies and to share this information with the communities they represent.
  - ► To ensure that services being provided to the communities are of the highest quality.
  - ► To act as representatives of local government with their communities.
  - ► To meet regularly with external agencies, and with private, public and voluntary sector groups.
  - ► To hold regular surgeries with their local communities to discuss individual problems or issues.

  The surveys presented in this book, however, indicate that these roles are neither fully appreciated nor adhered to by the councillors representing the areas surveyed. This is mostly a result of the limited educational background of most councillors, as well as their inexperience in these roles. Councillors avoid attending CBO meetings, and sometimes appear to try to undermine the effectiveness of such organisations, because of the perceived threat that they present to their own interests.

- ***Community leaders and councillors must work in harmony in development programmes that affect their communities.***

  Communities are often sceptical about the performance of their supposed leaders and their councillors. It is, therefore, important that communities are fully involved in matters that affect them, so that they have more confidence in their leaders and better understanding of the projects being implemented. At present, most councillors are not effectively answerable to their constituents.

- ***Councillors have a tendency to liaise with only a few influential members of their wards.***

  This approach, however, creates a barrier to participation for the weaker, less vocal members of the community. Councillors must consult as widely as possible in order to earn credibility and a positive response from the entire community.

- ***Councillors and communities must work together in encouraging service providers to adopt a community development approach.***

  Councillors should assist people and groups in the community in developing effective relationships with sanitation agencies and policy makers. Partnership works best when there is a shared vision, leading to trust and agreed working methods. However, it is not necessary to agree about everything – open debate and dispute is healthy in any democratic system!

- ***Councillors should be bound by a code of conduct.***

  Central government should draw up a code of conduct for ward councillors, in consultation with representative local community organisations, and check that the code is followed, to ensure high standards in the way in which they undertake their duties.

The failure of councillors to interact effectively with their constituents has ultimately led to communities not having a workable communication channel with the agencies that are responsible for the provision of services, including sanitation. It is important, in order that communities are better represented, that councillors are well informed about their roles and responsibilities and that they are given support in carrying them out. Ward councillors are expected to contribute to good governance of the areas for which they have responsibility and to encourage community participation. They should also be responsive to the needs of their constituents, treating them all with fairness and without prejudice. Much remains to be done to achieve effective representation by councillors.

Relationships between Councillors and Sanitation Agencies

Chapter 2 has shown that, as with their relationship with their constituents, relations between councillors and sanitation agencies, whether they are part of local government or in the private or non-governmental sector, are problematic. Likewise, communication between councillors and agency staff is often difficult. This section presents some ideas

that should lead to the formation of better relationships between sanitation agencies and ward councillors.

- ***There must be a commitment on the part of councillors and local authorities to work together, with improved coordination and communication.***

  Many problems in the relationships between local communities and sanitation agencies occur because councillors are not supported by local authorities and, likewise, councillors do not back-up the work of the authorities. Councillors can bring a wealth of knowledge and new perspectives to discussions about local services; sanitation agencies should use this as a resource to identify unmet community sanitation needs, to avoid duplication of services, to fully utilise existing resources and to develop effective programmes that address community needs.

- ***Effective partnerships require new skills and behaviours from both councillors and sanitation agencies.***

  Time should be set aside for joint capacity building programmes that would benefit both parties through developing better relationships. Such programmes should be promoted by central government and facilitated by national NGOs. This work should help to establish shared understanding and values. Sanitation agencies that are linked more closely with local communities are more likely to improve the sanitation needs of those communities.

- ***Both councillors and sanitation agencies must develop a greater awareness of organisational cultures, and examine the barriers to good relationships that are created by their attitudes and behaviour, through cultural diagnosis and management and organisational development.***

  Collaborative processes can lead to innovative programmes and approaches that the individual participants might not have arrived at on their own. Central government needs to promote these processes.

Despite the fact that the need for meaningful consultation between councillors and local authority sanitation agencies is appreciated in many cases, there are still many problems in this area. There is need for a change in attitudes on the part of both parties. Most importantly, change is needed amongst councillors, who in most cases misrepresent the best long-term interests of their constituents. Councillors are often poorly educated, primarily motivated by party-political interests and are responsible for large wards including several communities. Sanitation agency staff consider themselves to be professionals and find difficulty in communicating on equal terms with councillors. Much needs to be done to break down these barriers.

Links between Communities and Sanitation Agencies

Involvement of local communities in programmes of development that affect them is recognised, globally, as a key factor underpinning the sustainable delivery of social services. With limited resources available to sanitation agencies, communities have to become actively involved in managing projects that influence their well-being. This section presents some suggestions that can be used to promote the development of effective links between sanitation agencies and urban communities living in poverty.

- ***Political will for change is needed at the highest levels.***

  This can be achieved through the advocacy and involvement of appropriate decision-makers at all stages of sanitation projects. Ministers, deputy ministers, permanent secretaries and directors of relevant ministries and departments should be involved in both research and development in sanitation improvements, or at the least they should be made aware, at the outset, that research and development programmes are going on. Results, both positive and negative, must also be shared with them in ways which engage their interest. Methods should be found to give sanitation the attention it needs and deserves, so that it is not overshadowed by water supply issues. Creative and striking messages are needed to help the decision-makers to understand the importance of sanitation, particularly in poor urban areas, and to encourage action.

- ***The development of comprehensive sanitation policies, clearly targeted at the needy areas, is pivotal to the success of sanitation programmes in those areas.***

  Policies should clearly specify the roles and responsibilities of all agencies, including the poor urban communities themselves; identify appropriate strategies; and outline the resources needed and sources of those resources. Such policies should be drawn up with the active participation of the poor urban communities themselves, along with their representatives, their councillors, and local sanitation agencies.

- ***'User-friendly' guidelines should be developed by central government to guide sanitation agencies and communities in how best to work together in sanitation programmes.***

  Wherever possible, findings from successful participatory programmes should be thoroughly disseminated. The Interpretative Guide for Sanitation of the South African Water Services Act (DWAF/NaSCO, 1997) is a good example of such a set of guidelines.

- ***Sanitation projects must not just aim at providing facilities but should also attempt to address the legal status of the urban poor.***

  The scale and effectiveness of sanitation projects in poor urban areas largely depends on the legal status of these settlements. Where tenure is illegal or uncertain, sanitation agencies can usually only provide temporary facilities, which may not significantly improve the welfare of the urban poor. In addition to meeting the practical

needs of the urban poor, sanitation agencies should also work with other agencies to address strategic needs including recognition, empowerment, and secure land tenure. Without such issues being addressed, any sanitation improvements are inherently unsustainable.

- ***Procedures must be sought to ensure de-facto security of tenure where formal, legal recognition cannot easily be obtained, or is not desired.***

  In cases where all informal settlements are considered to be illegal, as is the case in Zimbabwe, sanitation agencies in these areas should attempt to find ways of ensuring that communities will not be evicted, as any instability makes investment in sanitation, by agencies, communities or households, very unlikely. This can be achieved by persuading the government to guarantee that settlements will not be destroyed for, say, five or ten years and that those settlements can only be destroyed if residents are resettled to better locations. This principle has been applied successfully in squatter upgrading programmes in Latin America and South Asia, where governments have guaranteed that houses of people participating in upgrading programmes will not be destroyed.

- ***Building and procurement regulations must be made as flexible as possible, and any other legal impediments that prevent appropriate service provision or participation of the informal sector in illegal areas should be relaxed.***

  Householders have often undertaken a lot of work to construct their own houses, latrines and waste disposal facilities; government departments and local authorities should build upon this initiative by introducing flexible standards and advise or train community members so that they construct safe and effective structures. Incremental improvements should be sought rather than the blanket imposition of unachievable standards.

- ***In order to facilitate community management and ownership of sanitation assets there is a need to make it possible for Community-based Organisations (CBOs) to register as legal entities.***

  CBOs must be legally recognised so that they can construct and own sanitation assets. Although there is often talk about community ownership, this is usually not legally binding and arguments erupt between local authorities and communities when NGOs or other external supporters withdraw. This is particularly serious in projects where communities contribute to the construction of infrastructure. Communities may refuse to pay local authority charges for use of such infrastructure. Clear ownership and financial and managerial responsibilities are essential from the outset, but these can be complicated by the high turnover of residents in informal areas.

- ***One national committee should coordinate the activities of all sanitation agencies working in poor urban areas (including government ministries and departments, NGOs, donors, CBOs, the formal and informal private sector, etc.) and should design, promote and enforce pro-poor policies and regulations.***

  ZINISA in Zimbabwe and NWASCO in Zambia provide examples of such committees, but their capacity needs to be strengthened.

- ***By-laws must be drawn up in consultation with the local communities who are affected by them, and the roles of implementers and regulators should be separated.***

  Communities are more likely to comply with by-laws in whose formulation they feel that they had active participation, as opposed to those which are imposed on them. In some cases, for example in Zimbabwe before the new Water Act, the government played the roles of financer, implementer and regulator of the sanitation sector. This compromised both the quality of services in growth points and the enforcement of pollution control measures. The Central Rates Fund still acts as the financer and implementer at Zimbabwean growth points.

- ***All stakeholders and policy-makers should be involved at all stages of the project cycle.***

  A deliberate attempt should be made to target marginalised groups within local society (such as women, children and the most vulnerable) with information, and to involve them in discussion. This can be facilitated by conducting focused group discussions at the lane and neighbourhood levels.

- ***Local authorities must invest more resources in their community development departments.***

  Community development staff can help community organisations by reaching out to community members who do not participate in community activities. They can also be a source of advice and support for local individuals and groups. Such staff can act as a channel between the communities and the sanitation service providers. Sanitation agencies, including NGOs, should support community development initiatives by offering technical and material support. Allocation of resources is a difficult and controversial process; involving the community in project design and implementation allows the authorities to share the burden and may promote the community's willingness to pay for sanitation services.

- ***Transparency and accountability should be encouraged by giving CBOs more 'say' in local authority programmes.***

  There is often little trust between local authorities and the urban poor, particularly those living in informal, illegal settlements. This is mainly due to lack of regular and open communication and meetings between the two parties. Trust is further damaged by reported cases of corruption and political clashes. If CBOs, such as residents

or ratepayers' associations and housing cooperatives, are strengthened and given legal recognition, then they can help to make local authorities accountable to the communities they serve. However, mechanisms are also needed to ensure that CBOs are impartial and represent marginalised groups within the community. Civic education is vital if communities are to ensure that sanitation agencies are accountable to them.

- ***Local authorities must be involved in programmes run by NGOs and those funded by external support agencies (ESAs) in poor urban areas.***

  Some NGOs work directly with poor urban communities without involving local authorities. This is normally done where informal settlements are considered to be illegal, or to avoid local authority bureaucracy or corruption. In some instances, NGOs only contact local authorities when seeking permission to work in informal settlements. Although this approach may speed up project implementation and help to ensure that local communities benefit in the short-term, this does not improve the relationship between local authorities and communities, and can exacerbate the lack of mutual understanding between the two parties. For example, local authorities may still treat informal settlements as illegal, thereby limiting investment in these areas to temporary facilities. NGOs and donors should involve and build the capacity of local authorities, so that they work effectively with communities, and can provide coordination between different programmes.

- ***Sanitation agencies must conduct regular meetings with communities and other stakeholders, where problems can be discussed and immediate corrective action can be taken.***

  According to the UK Department for International Development (DFID, 1998) sanitation projects are more likely to succeed if they follow the process rather than the blue-print approach. In the process approach, agencies and communities formulate goals and means of achieving them together. The process approach is flexible and future activities are based on an assessment of past activities and problems encountered. Instead of setting outputs at the beginning, the process approach allows communities and agencies to redefine outputs as the project proceeds. Regular, open and meaningful communication between agencies and communities is essential.

- ***Local authority and NGO activities must build upon, and collaborate with existing, informal sanitation activities, such as waste recycling, and not over-ride them.***

  Durban Metropolitan Council provides a good example of how such collaboration can be achieved in solid waste management. In order to achieve this, good, open communication is essential.

- ***Diagnostic studies can be used to assess the needs, perceptions and practices of the urban poor as the first stage of solving the sanitation crisis.***

  Baseline information on socio-cultural and economic characteristics and the socio-political organisation of the local community is important in designing appropriate

sanitation projects in poor urban areas with those same local people. The diagnostic study should also be used to understand why people move to poor urban areas and to identify causes of poor sanitation and possible solutions. However, previous surveys should be checked before administering new surveys, and care should be taken to store survey data in readily accessible and useable forms for future planning activities.

- ***Programmes based on community participation take time and are normally quite expensive to implement.***

  It is important that sanitation agencies should allocate adequate time for participatory processes, including communication, and set aside adequate resources in their budgets. Funds may be needed for surveys, communication materials, networking, training and recruitment of facilitators, and in some cases even for the setting up of new community organisations.

- ***Efficient communication strategies, that link sanitation agencies with the urban poor, need to be developed.***

  Part of this process involves ensuring that the different components of the community (men, women, lodgers, rich, poor, children etc.), their leaders and their organisations, are identified and that their views are collected. Participation of all the different social groups must be ensured. Note that there are some marginalised groups who cannot say what they want at public meetings. For example, there is a significant proportion of female-headed households in poor urban areas; yet in most traditional cultures women do not make public or community decisions. Decision-making should be carried out at street and neighbourhood levels to encourage more participation by traditionally marginalised groups.

- ***Effective structures are needed to facilitate communication between poor communities and local authorities.***

  Lack of effective communication channels between local authorities and communities has forced poor people to air their grievances through the media or by holding demonstrations. Effective links can be established by strengthening or creating development committees in poor urban areas, including, but not dominated by, local authority representatives. It is necessary to ensure that such committees are legally recognised by the local authorities and that the capacity of these committees is built by leadership training and other forms of training appropriate to any needs identified. Two concrete examples of such structures, which demonstrate both strengths and weaknesses, are the Residents' Development Committees (RDCs) that have been established in the legalised informal urban settlements in Zambia and the Development Forums in South Africa. The Zambian RDCs are registered as NGOs under the Societies Act. In some cases they are recognised and treated as partners by the local authorities, but in others they are perceived as rivals and are not allowed to represent their communities to the local authority. Although RDCs are supposed to be apolitical, they are frequently manipulated by politicians and thus lose their legitimacy. The South African Development Forums are not only legal community-based organisa-

tions but are also part of the structure of local government.

- ***Information and communication strategies that address all segments of urban poor communities must be developed.***

  Formal and informal flow of information should be encouraged through networks connecting NGOs, CBOs and other social groups such as women's clubs. Informal groups are more effective in spreading information about sanitation projects and hygiene messages than larger, more rigid and bureaucratic structures. In order to ensure that the voices of all social groups are heard, various methods can be used, including contingent valuation (CVM), interviews at the household level and participatory approaches at the community level. Lane animators can also help to provide an effective link between sanitation agencies and the urban poor.

- ***Use local animators and existing local organisations to stimulate health and hygiene promotion.***

  Local animators can play an important role not only in health and hygiene promotion but also in assessing and understanding the needs of the urban poor and passing this information to sanitation agencies. Local health clubs, women's church clubs, household cleanliness competitions and school sanitation and hygiene programmes can all be used as locally-based promotion activities.

- ***NGOs must be encouraged to act as intermediaries between the urban poor and local authorities, and should attempt to improve both the relationships and the flow of information between local authorities and the urban poor.***

  NGOs should act as a neutral link between communities and local authorities. They should facilitate the establishment and operation of local committees, as recommended in the previous point, consisting of representatives of all stakeholders, to co-ordinate developmental projects in poor urban areas.

- ***Civic education must be promoted concerning sanitation policies and the roles and responsibilities of different parties, including the local communities themselves.***

  Civic education, leading to better understanding, is key in ensuring sustainable improvements in sanitation services and in ensuring effective community participation and accountability. Such a process is also pivotal in ensuring effective linkages between sanitation agencies and the urban poor. Local NGOs are probably in the best position to promote and carry out civic education, and to find ways to make this effective, through carefully monitored and evaluated programmes, the lessons from which should be shared widely.

- ***Civic education should be used to raise awareness about the regulations and by-laws that govern the provision of services in poor urban areas and to clarify the roles and responsibilities of sanitation agencies, and the local communities themselves.***

  Lack of knowledge and understanding is one of the major factors limiting effec-

tive community participation. As long as communities are not clear about the roles and responsibilities of sanitation agencies and about their own rights, problems of poor quality services, corruption, misrepresentation and unaccountability will continue. Civic education should also clarify the role of local communities themselves in improving their own sanitation services, so that they play their part. NGOs should integrate civic education on broader issues into health and hygiene promotion programmes.

- ***Participatory approaches must be adopted and local resources and skills utilised as fully as possible.***

  Participatory approaches (including the use of PRA and PLA methods) improve the sustainability of sanitation projects. However, as part of these processes, it is necessary to make sure that efficient communication channels are in place, through which different social groups within the community can convey their needs, demands and interests.

- ***All sanitation agencies working in poor urban areas should share the same overall goal and use compatible approaches to solve problems faced by the urban poor.***

  As outlined earlier, a sanitation policy and regulatory framework is needed for this work, to regulate the activities of the various agencies. A committee is required to oversee the implementation of such a framework. With such a system in place, uniform goals and approaches should become widespread even if a flexible, inclusive and holistic, poverty-focused and process-based approach is advocated.

- ***Standardisation of sanitation technology limits community choice.***

  Whereas standards are necessary to ensure that facilities are safe and serve the intended purposes during their lifetime, the tendency by many sanitation agencies to limit the type of sanitation systems may push the cost beyond the reach of urban poor communities. In South Africa, for example, agencies have been attempting to service all households in selected urban informal settlements with waterborne flush toilets, regardless of their willingness or ability to pay for the use and upkeep of such infrastructure. Links are therefore needed between policy-makers, planners, designers and users in order to ensure that technologies meet the needs and capacity of the poor. This can be achieved by involving communities not only in choosing, but also in designing technologies. Involvement of the community may also help agencies to devise more durable technologies, that could help to alleviate the problem of vandalism, which is rampant in many urban poor settlements.

- ***Poor sanitation should be treated not just as a health issue but as a first step towards poverty alleviation and as an essential precondition for economic and social development.***

  Sanitation projects are more attractive to communities if they create employment or training opportunities for local people. Therefore agencies should try to use a holistic

approach to development, as opposed to a limited, project-based approach. Sanitation projects should be linked with improvements in health, education and income-generation, since all these problems are faced by the same household. A gender-focused and poverty-focused approach will, in addition, help to ensure that not only will poorer households benefit from programmes, but also the more vulnerable within those households will also have a chance to contribute to the appraisal and design and to benefit both from the sanitation improvements and from the development process.

There are many issues that need to be tackled in the development of effective links between sanitation agencies and the urban poor. Sanitation agencies of all kinds need to build their capacity so that they can develop appropriate solutions in partnership with effective organisations formed by low-income communities in their settlements.

Conclusion

Water and, particularly, sanitation facilities are woefully inadequate in poor urban areas. A major cause of poor sanitation is the serious lack of mutual understanding and communication that exists between sanitation agencies and the urban poor. Local authorities make investment plans with little or no understanding of the needs or interests of the urban poor. As a result, services do not meet the needs of the local community. On the other hand, poor urban communities often assume that the provision of sanitation services is solely the responsibility of local authorities. In order to achieve sustainable and cost-effective improvements in sanitary conditions, there is a need to substantially improve the links between sanitation agencies and poor urban communities. This can be facilitated by taking account of, and implementing the recommendations made here. These emphasise that changes are needed in attitudes, policies, strategies and practices in central and local government, in NGOs and in the individuals and organisations who purport to represent the local urban communities. In particular, strategies for enhancing the delivery of sanitation services should aim to understand and take much greater consideration of the needs, characteristics, capacities and existing practices of people living in poverty in urban settlements.

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