

## **#10 EXPERIENCES OF COMMUNITY-BASED WASTE MANAGEMENT IN A DECLINING ECONOMY**

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### **1. Abstract**

Zimbabwe – a country of 13 million people – has been experiencing an economic downturn since 1997, characterised by inflation at 231 million percent [1]. Service delivery in the country has been severely crippled and the centralised solid waste management system has succumbed. Household refuse collection frequency by local authorities (LAs) has fallen from once a week during the 1990s to the prevailing levels of once in two months [2]. This collapse in the centralised system has caused an increase in indiscriminate dumping of waste in open areas, increased random incineration of waste and a surge in cases of dysentery and cholera outbreaks. There is no solution in sight.

In an effort to alleviate the situation, Practical Action has, since 2005, been implementing a demonstration project in three local authority areas to foster community-managed models in waste management. This paper describes some of the project experiences regarding promoting service delivery and income generation through working with community-based organizations (CBOs) engaged in recycling activities and refuse collection services for at least 3,000 households in low-income areas. The paper will focus on the capacity building of CBOs in the context of local governance processes and policies. The participatory monitoring and evaluation framework that was used to track progress and review the approaches will be discussed. Finally the paper will look at the emerging results, the impact and sustainability factors and how they are contributing in defining the future direction of waste management in the country.

### **2. Introduction**

Solid waste management in urban Zimbabwe has in the recent years become a primary concern in most public health, environmental or service delivery discourses. The sector has been affected by the declining political and socio-economic environment. LAs which traditionally have been responsible for solid waste collection in the country have succumbed to the unrelenting challenges the country is facing. The problem has been more pronounced in the urban areas where LAs used to collect household waste at an average frequency of

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once per week during the 1990s because this frequency has reduced to once in two months. The limited scope of activity in reduction, reuse and recycling of waste in the country has not helped the situation.

In an effort to alleviate the situation, since January 2005 Practical Action has been implementing a pilot project that promotes community-managed models in waste management in the three local authority areas of:

- **Mbare** (24,000 residents) which is the oldest suburb of Harare (the capital city) and hosts the country's largest fruit and vegetable market and the country's biggest bus terminus which services long-distance buses that serve all of the country;
- **Chitungwiza** (800,000 residents) which is a dormitory town located 25 km south of Harare and governed by a Municipal Council;
- **Epworth** (300,000 residents) which is a peri-urban settlement located 12 km southeast of Harare. The settlement lacks basic infrastructure due to its largely informal nature. It evolved from a squatter camp and is governed by Epworth Local Board (ELB), the lowest level of local government in the country.

The project focused on building capacities of communities to improve their environment, create employment and generate income from waste management. CBOs empowered communities to lobby LAs for policy and practices changes that would favour their beneficial participation in the sector. In the course of implementation the project bore the impact of the "clean-up" operation code-named Operation Murambatsvina (Restore Order) in May-June 2005, which was orchestrated by the Government of Zimbabwe and involved the destruction of illegal settlements, back-yard housing and informal business structures, mostly in urban areas. The campaign left an estimated 700,000 people homeless and indirectly affected a further 2.4 million people [3]. As a result, the informal waste workers initially targeted by the project were displaced and LAs become hesitant to embrace the project concept, delaying progress for a total of 9 months.

The objective of this paper is to discuss what was done to develop the capacities of CBOs involved in various waste management activities in the three local authority areas. The four main outputs around which the initiative was built will be discussed and they are:

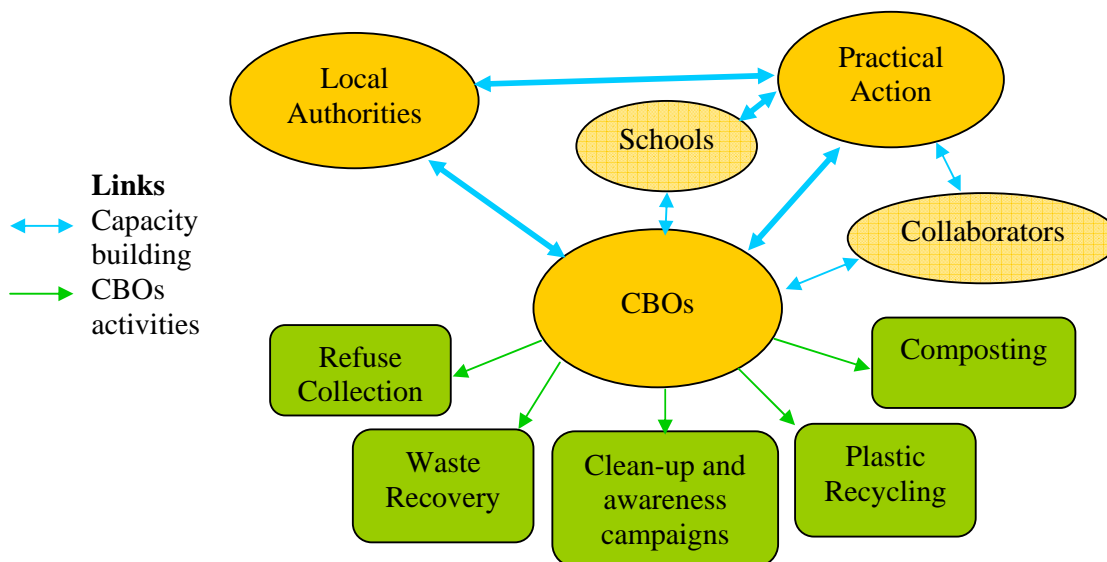
- Institutional and organisational development of CBOs.
- Changes in decision-making process and practice resulting from lobbying by CBOs
- Development, demonstration and comparison of community-managed approaches in waste management.
- Analysis of experience, and sharing and dissemination of lessons learned.

## 2.1 Implementation model

The project was implemented as per the model in Figure 1.

## 2.2 Project CBOs

The project worked with eight CBOs: three in Epworth, three in Chitungwiza and two in Mbare. Of these eight, four already existed before the project started and four were established by the project. The equal numbers would enable comparisons of how the two categories would fare after the capacity building process.



**Figure 1 Implementation model**

### 3. Capacity building process

Community empowerment and training were an integral part of the approach given the need to transform people’s mindsets and build their confidence to own the process of waste management and visualise the integration of their other aspirations for income and employment. To achieve this it was necessary to assess the capacity gaps of the existing and newly established CBOs. Capacity assessment tools were used to establish the needs of the groups as well as to benchmark their levels before any training was provided. This exercise revealed capacity gaps in leadership, roles and responsibilities, conflict resolution, business management and some technical issues of waste management.

Training materials were developed and adapted according to the assessment of the capacity gaps, and then training were provided. The training methods used were mainly theoretical lecturing with a high proportion of the time devoted to role playing and practical activities. It has been the experience of the organisation that these were the most effective methods for adult learning. Most training activities were carried out within the community, not only to reduce costs but also to increase female participation as often women cannot be away from their families for longer than a day.

#### 3.1 Institutional and organisational development of CBOs

##### 3.1.1 Training for transformation

Training for transformation was used to enable project participants to learn to analyse themselves, their roles, opportunities and constraints and to plan courses of action together. The training helped to strengthen local institutions and to increase the capacity of groups and individuals to take control of the development process in their own communities. Experience has shown that when development interventions align with the priorities of a community, the sense of ownership increases, as does the likelihood that the community will work to maintain the results, thereby increasing the likelihood of sustainability. The training

incorporated age and gender aspects so as to empower especially women and youths, who are usually sidelined in decision-making processes. The training was based on a manual that can be adapted to suit the specific training needs of a community or group. Methods of training included the use of role play and games to illustrate important messages about group dynamics and how to manage community relationships for a common goal.

### 3.1.2 Business and technical training

Building on the needs assessment, relevant training activities were designed and undertaken to enhance the capacity of the chosen CBOs and to prepare the newly established CBOs for their entry into business. Tailor-made business training was given, covering business plan development, financial management, record keeping, marketing, and reporting. The technical training encompassed principles of integrated solid waste management, waste management technologies, the roles and responsibilities of different players in waste management, and case studies of community-based waste management from other developing countries.

### 3.1.3 CBO finances

*Start-up grants* The project provided grants to enable CBOs to access micro-finance and bridge their working capital needs. In the second stage of the project *revolving funds* were set up at each of the project sites to augment the efforts of CBOs and their individual members to boost incomes. The funds were administered by committees comprising representative members from the different CBOs. Tailor-made training was provided to enable the committees to evaluate applications, approve funding at agreed interest rates, collect loans, and to generally manage and to increase the funds.

### 3.1.4 Deployment of tools and equipment

Whilst the grant fund bridged the CBOs' working capital gap, there was also the need to assist the enterprises with start-up capital equipment to enable them to deliver tangible outputs. Tools and equipment were distributed according to the approved business plans developed by the CBOs. Because of the largely pilot nature of the project, it was necessary that the CBOs participate in the design and appraisal of the equipment they would be using. CBOs helped to develop the specifications by means of discussions and the provision of hand drawn sketches of suggestions which were then refined by qualified artisans. When the prototype products had been fabricated, the CBOs would test them and give their feedback for further modification. This process was more successful in the development of the load-carrying tricycles than for the other items, such as cleaning, shredding and compressing equipment, as these were not available until later because of the non-availability of secure storage facilities for the CBOs.

### 3.1.5 Formal registration process

Undefined legal status can be a problem in many business dealings or negotiations so foresight the project facilitated the registration of CBOs as formal entities. A CBOs registration workshop was conducted in partnership with the Zimbabwe Environmental Law Association (ZELA)<sup>2</sup>. The CBOs were exposed to a range of options which included private companies, trusts, private voluntary organisations and cooperatives from which ZELA

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<sup>2</sup> This process has been described in paper #9 by Shamiso Mtisi, also presented at this workshop.

facilitated their registration with the relevant authorities. Of the eight CBOs, one was registered as a private company, three as trusts, two as cooperatives and one as an association while one remained unregistered.

### 3.1.6 Access of CBOs to support information

Efforts to improve the access of CBOs to relevant information to support their work were made by using information communication technologies (ICTs) available at Practical Action offices where there was access to email and internet facilities for research. This however, proved popular mostly with the younger members of CBOs. The use of ICTs was augmented by the distribution of printed material on waste management received from other international sector networks and institutions such as the Water, Engineering and Development Centre (WEDC). CBOs gleaned further information from various training workshops hosted by sector stakeholders such as the International Labour Organisation (ILO) and Environment Africa.

### 3.1.7 Development of a participatory planning and monitoring system

The project team helped to co-ordinate the efforts of the CBOs by promoting their active participation in the planning and monitoring of progress at regular feedback meetings, annual reviews and participatory planning meetings.

#### Regular feedback meetings

The key to the sustained interest of CBOs in participating in the initiatives was the implementation of agreed activities. Regular monthly feedback meetings served as a platform for a meeting of minds and building confidence, and as the project progressed and there was evidence of improvement in the CBOs' monthly feedback reports and in planning and target setting. As the CBOs' confidence increased more stakeholders (such as Médecins Sans Frontiers (MSF) working in Epworth for example) targeted the CBOs as entry points to improve the livelihood of the residents at large, covering other pressing needs such as direct health interventions.

#### Annual reviews

These were conducted by the project team in association with the CBOs, project stakeholders and external consultants. The reviews provided an opportunity for interaction with the wider audience, which included government departments, the private sector, LAs, sector NGOs, research institutions and the media. The reviews broadly compared activities with plans, and reported progress in meeting objectives and achieving outputs, financial performance and budgeting, activity plans for the subsequent activities and any changes in project formulation and the logical planning framework. CBOs had opportunities to present their yearly progress reports and benefit from the evaluation, analysis, critiquing, recommendations and compliments of other stakeholders. The reviews also served as a good platform to press for public commitments by relevant authorities to meeting the needs of the CBOs.

#### Participatory planning

Each year planning meetings were held with the CBOs at the project sites after annual reviews. The participatory planning of activities, and in particular the project planning, were undertaken against the background of the initial information gathering and the previous year's activities. The supplementary information collected at this stage also contributed to internal project monitoring against assumptions and targets. The plans

themselves also provided a reference point against which project achievements and individual CBO progress were monitored.

### **3.2 Decision making process, policy and practice changes**

#### 3.2.1 Training on the legal and policy framework

Provision of municipal services such as refuse collection in urban areas has traditionally been entirely the preserve of LAs. Residents pay for the service without being involved in any aspect of how it is provided. However, there is provision under the Environment Management Act and the Urban Councils Act for other players to participate, and so there was the need to empower CBOs with relevant knowledge on the policy and legal framework governing waste management so that they could lobby the respective authorities for the relevant changes in policies and practices. Despite this empowerment, the CBOs still faced challenges in winning concessions, especially from big LAs such as the City of Harare, because of the complex bureaucratic structures. Apart from bureaucracy, LAs were hesitant to allow CBOs to provide services such as refuse collection because this would oblige them to pay the CBOs from funds they were collecting but not using to provide services to residents.

#### 3.2.2 Awareness and clean-up campaigns

To increase their influence, CBOs conducted clean-up and awareness campaigns which promoted good waste management practices within their neighbourhoods and which in turn won them wider community support. The campaigns did bear fruit because the communities supported the CBOs when they asked LAs for concessions, changes of practice or support.

#### 3.2.3 Tripartite negotiations

To set up negotiations between LAs and CBOs without the former looking down on the latter, the project team initiated tripartite negotiations which enabled the gradual recognition of the CBOs by the respective LAs. The team gradually played a less active role, leaving the CBOs in direct dialogue with the authorities. In Epworth it took more than three months to negotiate a contract that allows *CNM Environment Trust (CNM)* (one of the CBOs) to provide refuse collection services to 3,000 households in Ward 5, which had previously received no such service at all because of the poor road network. The formal contract was finally awarded four months later after a trial run in which the CBO provided unpaid refuse collection services under the supervision of ELB. When the contract was awarded ELB would commit to paying only 50% of service fees collected in Ward 5, with room for review in the future, though to date the percentage remains the same.

#### 3.2.4 Securing operational space

One of the key resources for CBO growth and establishment is the availability of operational space. The project supported CBOs in lobbying for operational space so that they could set up offices and storage space. Epworth was quick to act and allocated business plots for the project to the CBOs of the area for this purpose. Chitungwiza and Harare LAs dragged their feet until the third and fourth years of the project. Table 1 shows the types of operational spaces granted to CBOs and when they were granted.

Name	Period granted	Location	Type of operational space granted
CNM Environment Trust	2006	Epworth	Leased commercial plots
Two by Two Waste Recovery and Management	2006	Epworth	Leased commercial plot
National Coalition for Sustainable Development	2006	Epworth	Leased commercial plot
Batanai Composting Group	2007	Mbare	Permission to utilise city grounds at a child day care centre
Tisunungureiwo Recycling Cooperative	2008	Mbare	Leased commercial plot
Shambidzikai Environmental Awareness	N/A	Chitungwiza	None
Zengeza 3 Waste Management Association	N/A	Chitungwiza	None
Wenhamo Cooperative	2008	Chitungwiza	Permission to utilise municipal space at the landfill

**Table 1 CBO operational space allocations**

### **3.3 Development and demonstration of community managed approaches**

#### 3.3.1 Training of trainers

Members of the CBOs in Epworth were trained as trainers (peer educators) in Participatory Health and Hygiene Education and were equipped with toolkits on the water ladder, water storage, sanitation, disease control and general hygiene. The trainers were empowered to go into all of Epworth’s 9 wards at scheduled times each week and educate the community on good health and hygiene practices. In addition to the scheduled meetings, *CNM* members also engaged in further knowledge dissemination as they collected solid waste in Ward 5.

#### 3.3.2 Taking the lead in community initiatives

CBOs in Epworth had become more confident by the second year of the project to the extent that they spearheaded the preparations for the commemoration of the National Sanitation Week in September 2006. The commemoration, which took place in Epworth, attracted government ministries, the private sector, sponsors, schools and the community at large.

#### 3.3.3 Formation of partnerships and strategic links

The project supported platforms that not only nurtured partnerships between LAs and communities but also promoted links with other collaborators from the private sector and government departments as a way of increasing growth opportunities for CBOs. This ensured institutional buy-in and made different service providers and authorities understand the importance of communities not only as a consumer of their services but also as a potential partner and resource in the delivery of services. The CBOs gained increasing recognition from recycling companies and relevant government departments like the Environmental

Management Agency (EMA) – the implementing arm of the Ministry of Environment and Tourism – and the Ministry of Youth, Gender and Employment Creation, among others.

### 3.3.4 Collaboration of LAs and CBOs

As the project gathered momentum LAs became more responsive to the CBOs. ELB granted operational plots in its home industry zone and provided storage space for the CBOs' materials and equipment while their working sheds were under construction. CBOs were also provided with transportation as well as telephone and meeting room facilities.

The local authority in Chitungwiza provided the CBOs with bulk waste containers when they were clearing the illegal waste dumps in their neighbourhood and cleaning blocked drainage trenches. The municipality ferried the full containers to the landfill for dumping until the fuel shortages prevented the local authority from keeping its side of the bargain. At the landfill the local authority granted permission for the construction of administration, storage and washing facilities for the waste recovery cooperative based on the site.

*Batanai* in Mbare was granted operating space on a portion of the ground within a children's day care centre for their composting activities. They enjoyed prompt responses from the Waste Management Department whenever they asked for deliveries of organic waste from the fruit and vegetable market. This arrangement worked well for the local authority as it reduced the number of trips made to the landfill. Unfortunately the CBO could not utilise all the waste from the market because of the lack of capacity and limited composting space so the local authority still had to take significant amounts of waste to the landfill 25km away.

### 3.3.5 CBOs involvement with schools

As the projects matured, CBOs involved schools through SWM awareness raising and plastic collection. *Two by Two Waste Recovery and Management (Two by Two)* entered into a two-way arrangement with schools in Epworth to supply them with stationery for the students in return for recyclable plastic waste. *Shambidzikai* embarked on a comprehensive waste management and environmental awareness programme in schools in Chitungwiza, using the Better Schools Programme (BSP) as an entry point. During the annual Schools Waste Management Competitions – supported by the project – the CBOs have been assisting the schools with ideas and preparation of presentations.

## **3.4 Analysis, sharing and dissemination of experience**

### 3.4.1 Peer learning through exchange visits between CBOs

The eventual approval of LAs for the project implementation after the clean-up operation enabled the initiatives to mature in phases, with tangible progress being notable in Epworth, Chitungwiza and Mbare, in that order. This necessitated exchange visits among the CBOs so that they could benefit from peer learning. These exchange visits helped the CBOs to become flexible in adopting ideas they had seen other operations. The exchange visits also helped to build links between the CBOs, as exemplified by an arrangement by which one CBO supplied compost to another for onward selling to meet a growing demand.

### 3.4.2 Participation in local exhibitions and multi-stakeholder forums

CBOs had opportunities to inform the general public about their innovative roles in solid waste management. These forums and exhibitions were a good way of giving people an

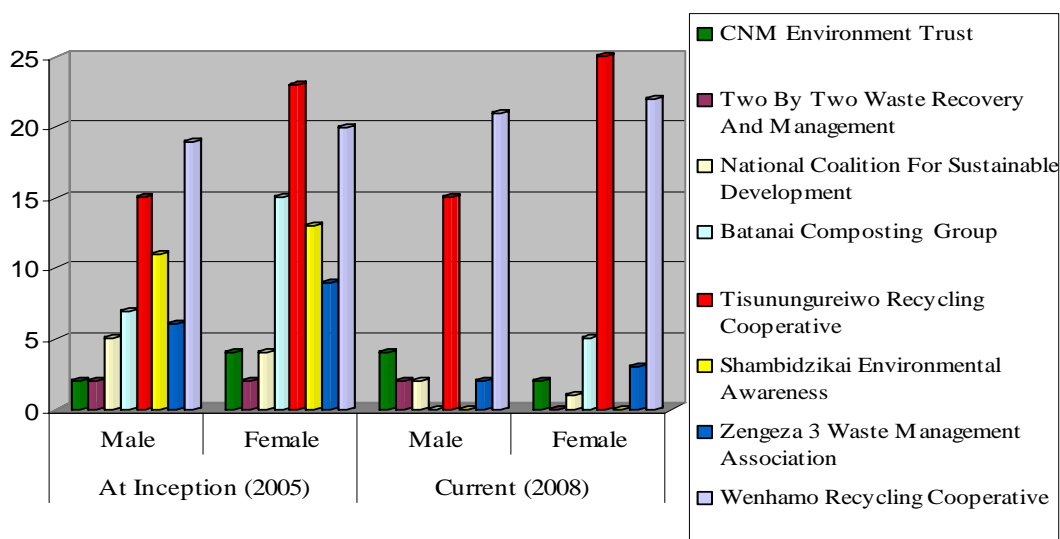
opportunity to quiz, discuss, understand and network in an informal environment. CBO members improved their communication and presentation skills and their self-esteem, as they explained their work to others. These opportunities served as a good publicity and marketing tool which benefited from the presence of the media.

#### 4. Challenges in the operating environment

The operating environment presented a number of challenges to the project, affecting the performance and progress of the CBOs. Some of the challenges included:

- The hesitation by LAs to embrace the project concept, especially after the clean-up operation, slowed the project momentum and affected the training of the CBOs as they were at each at a different stage in their growth.
- The bureaucratic set-ups of the Harare (Mbare) and Chitungwiza local authorities were a serious drawback to the project as valuable time was lost shuttling between offices, asking for action to be taken. In Harare, for example, a “last resort” project team meeting with the City Mayor was needed for action to eventually be taken.
- Lack of capacity due to the absence of decision-makers within LAs ensured slow progress as their deputies were incapable of making innovative decisions.
- The late allocation of operational and storage space by LAs affected the growth and stability of some CBOs, and the full-scale development appropriate equipment.
- The hyperinflationary environment made it difficult to assess the financial sustainability of CBOs incomes as parameters changed every day.

Slow and low income inflows from some CBO activities could not meet the competing needs for individuals, undermining the commitment of members who were also working elsewhere to gain sufficient income, and some opted out completely. Figure 2 compares current CBO membership with membership at project inception.



**Figure: 2 CBOs Membership**

## 5. Emerging results

As the project drew to its conclusion distinct categories of waste management CBOs emerged, based on the CBO's organisational structure and nature of its operations:

Community Action Groups (CAGs)

These are involved in community work which brings no direct income to the groups. Such work includes awareness campaigns, clearing of illegal waste dumps and clearing of blocked drainage trenches in the neighbourhood. The workers' pay came mainly from project grants and donations from the community.

Income Generating Groups (IGGs)

These generate incomes for workers; an example is waste picking at a disposal site. The scope for growth is limited by daily sales. Continuity is heavily dependent on the continuous delivery of waste to the dumpsite, especially by LAs.

Community-based Enterprises (CBEs)

These involve activities that generate incomes and exhibit potential for growth in every aspect of their operations. With improved systems, better marketing, improved income inflow and better financing mechanisms, as well as improved technologies, there is scope for growth into a medium-sized enterprise. Examples are CBOs that recycle plastics and drinks containers and those involved in the collection and utilisation of waste.

The implementation process hinged on different institutional relationships which developed into multi-level partnerships as listed below:

- NGOs (both local and international) and CBOs: More evident in capacity building, leverage to pilot new ideas and the mobilisation of resources for the resource poor communities.
- NGOs and LAs: Collaboration and engagement ensured an enabling environment for community-based initiatives with the relevant approvals and concessions and changes in policy and practice.
- LAs and CBOs: Enhanced interaction provided communities with access to their LAs to enable them to consult and work together on waste management issues as well as other social services important for their livelihoods and in broad promotion of the local development agenda.
- NGOs and private sector: The participatory approach gave the private sector easy access to work with communities and channel available resources towards other community development needs.

Capacity building of communities to provide some waste management services resulted in empowered local communities that no longer needed to wait for external service providers to redress their issues but could proactively work together to ensure better living conditions by effectively managing waste.

The establishment and strengthening of community-based organisations ensured that people could earn an income that enabled them to cope with the effects of the "clean up" operation and the spiralling inflation.

The interactive process promoted by the project presented an opportunity for participants to learn from others through exchange visits to other CBOs and project sites, and to freely share

information. The various exhibitions boosted the self-esteem of the participants which had recently been battered by many socio-economic pressures.

## 6. Impact and sustainability

- The major strength of these community-based initiatives is that they are premised on current legal and regulatory provisions in the Environment Management Act and Urban Councils Act. This favours the sustainability of the outcomes of such initiatives from a legal perspective. When the National Waste Management Strategy is in operation it will further buttress the role of communities (CBOs) as key players in solid waste management, further promoting community-based initiatives.
- The multi-level partnerships that have been established will encourage both short- and long-term community-based development. The gradual increase in the adoption of the corporate social responsibility concept points to the private sector providing resources for community-driven initiatives as a way of ploughing a proportion of profits back into communities.
- Capacity building of CBOs has created a framework for competent community management structures to oversee businesses in waste management which will be sustained through the collection of service fees and income from sales. Business management skills such as record keeping and proposal writing are helping women who have ventured into other informal sector activities, especially cross-border trading.
- Exposure to participatory methodologies has had far-reaching impacts in the lives of the recipients as the subject content was not only tailor-made to suit the project needs but also had a general application to community and individual development. Studies show that trainees have experienced transformation, even at family level, and have used the skills gained in other spheres of their lives, outside the scope of the project.
- The promotion of appropriate low-cost waste handling technologies that utilise locally available materials reduces the service and maintenance costs for CBOs.
- The project has contributed to the debate on the need to empower communities and other stakeholders as part of the strengthening of local ownership, control and sustainability of local development initiatives.
- Successes in working with CBOs, mainly in Epworth, have benefited other non-governmental actors, such as ILO, who are using the CBOs as resources for some of their programmes.
- The successful implementation of the pilot project has boosted the confidence of other non-governmental actors to initiate similar actions outside the life and scope of the project.
- The experience gained by Practical Action from this project has enabled the organisation to mobilise resources and partner with EMA and other stakeholders in the formulation of the National Waste Management Strategy. The Strategy is expected to be launched early in 2009 and will determine the future of solid waste management in Zimbabwe.

## 7. Conclusion

The role of CBOs in waste management in low-income areas cannot be over emphasised, especially given the collapse of the centralised waste management system. It is vital for all sector stakeholders to embrace the community-based waste management concept if continuity and scaling up is to be ensured. To increase ownership and accountability of the concept there is a need to improve the planning process for service provision by promoting inclusive and participatory processes which empower the residents to have a voice in how services such as waste management are delivered.

The scaling up of this current initiative is more likely in Epworth where *CNM* and *Two by Two* are negotiating to extend their provision of refuse collection services to two additional wards. The local authority's technical staff has approved the proposal which now awaits adoption by newly elected councillors. On the national scale there is more likely to be increased activity and interest in community-based waste management after January 2009, following the launch of the National Waste Management Strategy. The Strategy, which will address the policy and legislative environment, health and hygienic issues and the socio-economic dimensions relating to solid waste, is expected to provide a clear outline of how to implement community-based waste management initiatives. This is expected to result in increased participation as the Strategy will spell out the roles and responsibilities of the various stakeholders, in contrast to the current situation in which stakeholders have to experiment on how to work with communities to improve their environment, create employment and generate income from managing waste. The increased clarity will encourage sector stakeholders to adopt a holistic approach in implementing waste management initiatives and move away from ad hoc activities such the intermittent clean up or awareness-raising campaigns which are currently implemented.

Lastly it is of paramount importance that interested communities, CBOs and individuals approach solid waste management with a business focus, taking up the various waste management activities as a means of livelihood that also have the benefit of improving the living environment. It is essential to partner with communities in an inclusive business approach, in which empowerment for communities is through creation of markets by the private sector.

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