

BINDURA WASTE MANAGEMENT PROJECT.

Participatory urban planning and management: a civil society initiative

**case of the Bindura Environment Action Network (BEAN) and the
Bindura Widows Recycling Project.**

Edited by

Douglas Kativu
Environment Africa Foundation
3 Durham Road, Avondale West
Harare, Zimbabwe
Tel 263 4 302276
Fax 263 4 339691
eafrica.waste@utande.co.zw

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ABSTRACT

The Urban Environmental Planning and Management Programme, under which the Bindura Environmental Action Network (BEAN) and the Bindura Widows Recycling Project were conceived, offers a holistic approach towards sustainable development. The Programme emphasises on the need for local level participatory environmental planning and management methodologies among all urban environment and development stakeholders. The scope of the Programme was to attain urban environmental improvements through waste collection and recycling systems. Besides solving an environmental problem, the Programme also seeks to address a health and gender related concern by empowering a group of widows to sustain their livelihoods through waste collection and recycling.

The Programme also envisaged establishing an environmental action group drawn from local and central government departments, the private sector, non-governmental organisations and civil society. To this end, BEAN was instituted. It is hoped that capacity building and empowerment of local stakeholders would take place through BEAN. Bindura Municipal Council implemented the project with technical, management and facilitation support from a non-governmental organisation, Environment Africa. The immediate objective of the project was to significantly reduce solid waste problems in the Town through participatory planning and management processes that improve solid waste collection and recycling.

This report focuses on the activities of, and the institutional capacity provided by BEAN, in solving waste management issues in Bindura. The report also touches on the critical roles played by the various stakeholders that constitute BEAN in participatory urban environmental planning and management in the absence of an enabling policy framework. The report also touches on the Widows Recycling Project meant to economically empower a group of widows by helping them implement a waste recycling project in a win-win situation.

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1. BACKGROUND ON URBAN ENVIRONMENTAL ISSUES - WASTE MANAGEMENT

1.1. Global

The management of municipal solid waste continues to evolve from the traditional straightjacket systems of generation to disposal, through waste collection and transportation, to integrated waste management systems. Integrated Waste Management encompasses source reduction; recovery, reuse and recycling of materials; composting and environmentally sound disposal of waste through incineration and/ or landfills. Of these alternatives, source reduction and materials recycling are usually the most preferred options.

An integrated approach to waste management allows for broad-based participation of various sectors in complimentary roles that are based on the four corners concept.¹ The broad based action plan for sustainable development, Agenda 21, explicitly calls for the adoption of integrated waste management systems. Many developed countries have successfully implemented ISWM systems, which encompass material recovery particularly recycling. Developing countries are lagging far behind their developed counterparts in as far as recycling is concerned. Waste recovery systems in the former countries are largely entrenched in the informal sector.

1.2. National

Growing urban populations in Zimbabwe are placing heavy demands on the country's natural and economic resources. At present environmental management capabilities of central and local government are weak. Attempts to deal with urban environmental issues (brown issues) have tended to be uncoordinated and carried out on an ad hoc basis.

The legal framework and legislation that is supposed to regulate the sound management of natural resources in the country is weak and fragmented and largely not enforced. The Environment Management Bill, which supposedly would create a conducive legal framework for environmental management, is yet to be passed into law.

There is also need to strengthen the capacity of Zimbabwean cities and institutions to address urban environmental issues and develop plans and strategies for sustainable management of the urban environment in an integrated and holistic manner with the involvement of all stakeholders. It is evident that sustainable development involves not only finding a development strategy that is able to meet economic and conservation needs but also one that is designed to meet social needs taking into account inter and intra generational equity.

¹ See Annex 1 for the four corners concept

1.3. Local- Bindura

1.3.1 About Bindura

Bindura is largely a mining and agricultural town 100 kilometres northeast of Harare, the capital city of Zimbabwe. The town also acts as the administrative and shopping centre for the Mashonaland Central Province. The Town's population, which is estimated to be growing at a rate of 4 percent per annum currently stands at around 30 000. The Town is also experiencing rapid infrastructural growth. Major mining industries situated in the Town's environs include Bindura Nickel Corporation's Trojan Nickel Mine and Ashanti Gold Mine. The mineral rich Town has also attracted swarms of illegal gold panners who have started informal settlements on the edge of the Town.

1.3.2 Description of problem

The rapid population and infrastructure growth being experienced by Bindura Town is impacting negatively on the human and financial capacity of the Town to provide effective and efficient municipal services, among them the management of municipal solid waste. The management of solid waste in the Town can be described as both inefficient and inadequate as evidenced by the indiscriminate dumping of waste on road verges, open spaces and in other public places. This is particularly evident in the high-density suburbs where heaps of rubbish have become eyesores. The odours, flies, rodents and the subsequent threat of disease spread have caused a lot of discomfort to residents. This problem requires both human and financial resources together with comprehensive plans to ensure the delivery of an efficient waste management system.

However such a big challenge comes at the backdrop of the Municipality's lack of both human and financial resources. At present Bindura's Cleansing and Collection Sectors, tasked with the management of solid waste in the Town, have 21 employees between them and only tree tractors and trailers. The sectors currently serve:

- 418 low density residential stands;
- 85 institutions;
- 150 Commercial stands;
- 70 Industrial stands;
- 1900 high density residential houses in Chipadze;
- 800 high density residential houses in Chiwaridzo.

The current capacity of the Bindura Municipality to provide efficient waste collection is inadequate, especially in the high density areas. The waste collection rate in the Town is estimated at 36m³ /day out of the more than 50m³ generated per day. A portion of the waste is currently being recycled and if this portion is increased, would not only reduce the volume of waste being dumped but can also contribute to income generation and thus improve the quality of life of some of the residents. It is estimated that around 80% of the waste generated is biodegradable of which 10% is recyclable paper.

Table 1: The current waste generation and collection rate in Bindura Year 2000

Area	Estimated Collected Waste (m ³ /day)	Proportion (%)
Low Density Residential	3.6	10
High Density residential	21.6	60
Commercial Area	7.2	20
Industrial Area	3.6	10
Total	36	100

Source: Ove Arup study, 2001

1.3.3 Project History

Christians on the Move (COM), a group of Christian ladies concerned with the welfare of AIDS orphans and widows realised the potential of a community based waste recycling project. The group approached the Bindura Town Council (BTC) in 1997 with the concept of working with a group of Widows to establish a door-to-door recycling project that would generate an income for the ladies and at the same time assist Council by reducing solid waste volumes up for collection and disposal.

In 1998, COM and the BTC realised that a wider stakeholder involvement was required if benefits for this initiative were to be realised. COM approached Environment Africa, a local Environmental NGO working in the field of environment and development, for assistance. Environment Africa, in conjunction with other stakeholders, carried out a feasibility study and needs assessment of the project. After several workshops the idea of institutionalising the process and thus ensure its sustainability was discussed as was the establishment of an environmental action group. The overall goal of the EAG at its inception was to contribute to sound environmental management through awareness raising, training and action oriented environmental programmes. It was realised that the needs of a community are founded in their understanding of their environment and their perceptions had to be clearly understood at the beginning through participatory planning methodologies in order to come up with socially acceptable projects.

1.3.4 End of Project Expectations

The following situation is idealised to be obtaining at the end of the project:

- reduced volumes of waste up for collection and disposal through source reduction and recycling;
- increased demand for recycled products thus financial sustainability for the project;
- effective municipal waste collection through better awareness of appropriate technology and institutional options;
- a new landfill site;
- active stakeholder participation in environmental action planning and management through environmental action groups.

1.4 Project Outputs

The main outputs that were advanced in order to realise the project objectives are:

- An urban environmental action plan focussing on solid waste management;
- Solid waste planning and management capacity among Bindura Municipality councillors and staff, private sector, and civil society stakeholders;
- Increased public awareness that facilitates well performing solid waste management;
- Sanitary facilities at dumpsites improved to reduce environmental and health risks;
- A local “Green Trust Fund” and Bindura Town council recurrent funds to sustain solid waste management operations.

1.5 Implementing Partners

The Bindura Town Council is the project’s implementing agency with technical support from Environment Africa, the facilitating agency. DANIDA was the donor organisation until its withdrawal from Zimbabwe.

2. THE METHODOLOGY

2.1 Participatory Project Planning

Environment Africa with the assistance of the Open University (UK) introduced and facilitated participatory project planning framework. Workshops were held with various stakeholders from the Town to identify pertinent environmental issues needing redress in the town. The objectives of the workshops also included the identification of mitigatory measures to ameliorate the identified environmental concerns. The stakeholders identified a number of environmental issues, which included:

- inadequate and inefficient solid waste management;
- water pollution from partially treated sewage and mine drainage;
- poor sanitary conditions owing to an old and over stretched system;
- air pollution from mines and dust from mine dumps;
- deforestation owing to the prevalence of informal settlements;
- land degradation, soil erosion and siltation from gold panning activities.

Basing on the results of a questionnaire survey, used for public consultation, and taking into consideration the limited capacities of BTC, the anticipated cost efficiency of the proposed recycling activities and their potential to create employment and the health risks posed by the poor state of waste management, the stakeholders agreed to tackle the problem of waste management out of all the identified environmental issues.

It was then that the stakeholders also agreed to support and strengthen the widows recycling project that had been initiated by Christians on the Move. A market research survey was conducted in order to identify the recyclables the widows could collect and in turn earn a living from their recovery. Recycling companies were also engaged to offer the widows training in various aspects of waste recycling. Environment Africa assisted the widows to come up with a constitution, which governs the group’s day-to-day activities. The widows freely chose one of them to lead their group.

In line with the Rio Declaration on Environment and Development, it was agreed upon that environmental issues are best managed by the participation of all stakeholders at all relevant levels. To this effect, BEAN was constituted. BEAN is essentially an environmental network consisting of stakeholders drawn from the local authority, industry, commerce, private and public entities, civic organisations, professionals, the widows group and individuals who are interested in addressing environmental degradation in the Town.

The major task for the network is to raise environmental awareness in the town and its immediate environs. All the members of the network were involved in drawing up the Constitution, which governs the Network. A democratically elected Chairman heads a committee, comprising the Vice Chair, Secretary, Treasurer and 3 Committee members. Projects or matters of concern are brought to the committee through the Chair, for deliberations at meetings or at workshops. The Chairman of BEAN also renders technical and moral support to the Widows group and acts as their on the site advisor.

Currently BEAN consists of the following stakeholders:

- Central Government Departments
 - Department of Natural Resources
 - Local Government and National Housing
 - Forestry Commission
 - Agricultural Extension and Research

- Local Authorities
 - Bindura Town Council
 - Bindura Rural Council
- NGOs
 - Environment Africa
 - Hope Humana
 - Christians on the Move
- Private sector
 - OK Supermarkets
 - Jagers Wholesalers
 - TM Supermarkets
 - Farm and City
 - Trojan Nickel Mine
 - Ashanti Goldfields
- Community Groups
 - Bindura Widows Recycling Group

Some of the key activities that were identified at the planning stage and the organisations that were tasked with implementing them are as follows:

Bindura Municipality

Framework provision for waste management;
Provide land for collection site;
Collection of non-recyclable waste;
Provide working permits for widows.

EAG (BEAN)

Publicity;
Counselling;
Monitoring;
Recruit widows together with department of social welfare;
Accountability.

Environment Africa

Overall financial, management, and reporting responsibility to donors;
Source funds;
Monitoring and evaluation;
Provide capacity building and training;
Facilitate awareness workshops;
Facilitate educational tours.

Widows

Collect, transport, and separate waste;
Inform and educate residents during collection;
Manage day-to-day activities and finances;
Monitoring success of their activities.

Households

Supporting the initiative by sorting their waste into recyclable and non-recyclable waste.

2.2 Organisational/Institutional Set-up

Organisational and administrative functions necessitated by the project are shared between a Waste Management Facilitator from Environment Africa and a Designated Project Officer (DPO) appointed by the Bindura Town Council. The DPO had the responsibility of organising and managing the project activities together with the Waste Management Facilitator and the chairman of BEAN, drawing on stakeholders as and when required. Day to day project management was relatively autonomous from an overall Component Committee (Component Management Unit, CMU) that was established at National Level, to oversee the implementation of the whole Danida funded Urban EPM Programme in five urban centres of which Bindura was one of these. The DPO was in charge of the work undertaken by the Council and he had to work within the local authority's institutional framework and was answerable to the Council.

2.3 Management and Reporting Structures

At its inception the project intended to establish a Project Management Group drawn from professionals from public administration, universities and the private sector. Environment Africa would then have the overall responsibility for implementing the activities and achieving the project outputs, with due consultation and in cooperation with the Bindura Municipal Council and other stakeholders.

The financial management and accounting of all project funds was the responsibility of Environment Africa. Control and Approval of budgets, financial statements, procurements and project reports were the responsibility of the Danida Urban EPM

Advisor. The Waste Management Facilitator from Environment Africa prepared annual work plans and budgets, in consultation with project stakeholders. These were then reviewed and approved by the Danida Urban EPM Advisor. The recruitment and management of Consultants were done by Environment Africa with the approval of the Danida EPM Advisor who was also responsible for meeting all professional fees.

Regular progress reports written to the specifications of the Danida Guidelines for Sector Programme Support were submitted to the Urban EPM Advisor. All reports by consultants as well as workshop reports were also copied to the Advisor. These and the progress reports were discussed during scheduled CMU meetings.

3. ANALYSIS OF RESULTS AND ACHIEVEMENTS

This section highlights some of the project's main achievements.

3.1 Stakeholder Analysis and Capacity Assessment

Environment Africa and the Bindura Municipality, with the consent of the Danida Urban EPM Advisor commissioned a Danida funded stakeholder analysis and capacity needs assessment study in Bindura. The survey was conducted by a group of consultants with expertise in waste management in December 2000. The study revealed capacity gaps among the stakeholders, to effectively deal with the challenges posed by the need to improve solid waste management in the Town.

The consultants recommended that there was need to strengthen BEAN as a vehicle for improving civil society/public and private sector dialogue in determining environmental and development priorities. It was also recommended that the Widows Recycling Group had to be strengthened with respect to organisational issues and improvement of waste collection efficiency. They also recommended the need for the Bindura Municipal Council to develop an environmental management strategic plan with waste management as an integral component. The consultant also suggested the adoption of a stakeholder based Integrated Waste Management System (IWMS) for the Town.

3.2 Exchange Visits

Environment Africa facilitated an exchange visit by Bindura Municipality to Gweru and Bulawayo City Councils in September 2000. The aim of the exchange visits was to share experiences on solid waste management and to network for the exchange of ideas and skills in the future. Environment Africa also initiated the participation of the DPO and other stakeholders of the Urban EPM Programme to attend the Waste Management Congress that was organised by the Botswana Chapter of the Institute of Waste Management of Southern Africa (IWMSA) in June of 2001. The Zimbabwean contingent to this Congress, which included the DPO from Bindura Town Council and the Waste Management Facilitator, from Environment Africa, among others, was instrumental in the establishment of a Zimbabwean Chapter of the IWMSA. The Zimbabwean Chapter was successfully launched on the 30th of May 2002.

3.3 Bindura Environment Action Network- BEAN

One of the biggest achievements of the whole Urban EPM Programme was the formation and constitution of the Bindura Environment Action Network (BEAN) in 2000. A number of meetings and workshops to interest various stakeholders about the Network were facilitated by both the Waste Management Facilitator and the DPO. Since then BEAN has transformed itself from a mere grouping of interested people to a formal institution with a constitution to guide its operations. HE network has been involved in the planning and subsequent implementation of the widows recycling project.

The Network has taken over the organisation of all environmental awareness events in the Town and has successfully organised the World Clean Up, World Environment and National Tree Planting Days over the past two years. The Network has also established Community Action Groups and Environmental Action Groups in schools in and around Bindura. It has also successfully run an environmental competition for schools with the support of mining companies in the Town. BEAN has been hailed as a successful case study by many local authorities that have heard of the Network and they are contemplating establishing similar networks in their own urban areas.

3.4 Widows Recycling Project

The Widows Recycling project achieved some measure of success in as far as financial returns are concerned. Despite the relatively low returns they are getting from the recycling companies, the widows have shown great determination in their project although signs of stress are now evident among some of the group members, owing mainly to the current harsh economic environment obtaining in the country. The average output per month for the widows is about 800-100kg of mixed waste paper per pair. In a good month, the widows share about Z\$ 35-40 000. On average the widows travel about 15 kilometres on foot between the residential areas and the town center, collecting mostly paper and plastics. The group has now been appointed as the sole agent in Bindura by one recycling company thus giving them a better status and improved payment rates.

Environment Africa hired an Advisor for four months to help the widows implement a profitable recycling project. The Advisor previously worked for a recycling company and equipped the widows with basic knowledge in paper recycling. The absence of the DPO during the first 3 months of the inception phase had a negative impact on the widows' morale as there was no structure to help solve their grievances. The delays in the disbursement of funds from the donor organisation also caused some strife and conflict among the group members. Environment Africa interviewed the widows individually in order to get to the bottom of the matter. A workshop on conflict management was then organised for the widows during which the red tape, characteristic of donor funding, was explained to the widows. This ended the finger pointing that had crept into the group.

Environment Africa also facilitated a workshop to help the widows come up with a structure and define their roles in the day to day running of the project. The widows came up with a committee and this committee managed to deal with the internal conflicts. The Organisation also arranged visits by personnel from recycling companies to Bindura to meet the widows and explain to them the type of paper and

plastics they required and the prices they pay for them. The visit proved to be a morale booster to the ladies who by then were feeling a bit dejected about the viability of the recycling project. Environment Africa arranged for the widows to visit various recycling companies in Harare in August of 2001.

3.5 Improvement of Sanitary Facilities

Environment Africa with the consent of the Urban EPM Advisor contracted Over Arup and Partners in December 2001 to carry out a study on how best the existing situation at the Bindura Town Council Dumpsite could be improved. The terms of reference also required the consultants to identify a site for a new dumpsite in view of the fact that the existing dump only had 5 more years before it fills up. The consultants identified four sites, which will require further geotechnical surveys to determine their suitability before selecting the most suitable site.

3.6 Integrated Waste Management Training Workshop

A 3-day training workshop on Integrated Waste Management was organised by Environment Africa in April 2002. The workshop was in response to the capacity gaps identified in the Stakeholder Analysis and Capacity Assessment study. However the workshop was not limited to participants from Bindura but invitations were also extended to participants from other cities and towns so that the sharing of experiences and networking would be comprehensive. A total of 24 local authorities were invited and most of them turned up for the workshop. Facilitators were drawn from the Zimbabwe Open University, University of Zimbabwe, Zimbabwe Environmental Law Association (ZELA) and Environment Africa.

4. ANALYSIS OF CONSTRAINTS

4.1 Socio- Political Climate

The economic and socio-political climate in the country hit an all time low during the project life. This further worsened the capacity of the Bindura Town Council and BEAN members to devote more financial resources to environmental management. Competition, from other civic needs, meant that fewer resources could be devoted to environmental management. The environment was given low priority by the private companies as they battled to survive the harsh macro economic environment. This arguably played a part in dissuading new members, from the private sector, to join BEAN.

The economic climate also hampered the morale of the widows as they could hardly make ends meet from the returns of their recycling project. Currently the widows share about Z\$35000/month. The economic climate also affected the ability of Environment Africa to effectively play their role in facilitating the implementation of the project, as they had to operate within the budget agreed upon during the project formulation. The situation was improved when the Organisation was given the leeway to adjust the budget, with the consent of the Urban EPM Advisor.

The 2000 Parliamentary elections and the 2002 Presidential elections raised tensions in Bindura Town and surrounding areas. As a result some facilitation activities had to be postponed or suspended during the months leading to the elections. The Bindura

Environment Action Network, despite the inroads it had made in 2000 and 2001 could not hold any meeting during the periods preceding the elections due to the political tensions.

4.2 Environmental Management Bill

The Urban EPM Programme and the Projects falling under it were implemented on the assumption that the Parliament of Zimbabwe would enact the Environmental Management Bill of 1998 into law during the year 2000. It was hoped that the enactment of the Bill would encourage more stakeholders to participate in environmental planning and management, besides creating a conducive environment for stakeholder participation in developmental and environmental issues. However up to the time of compiling this report the Bill is still in its draft form awaiting debate and consent by Parliament.

4.3 Operational Constraints for BEAN and the Widows

As mentioned elsewhere in this report, the absence of the DPO during the first 3 months of the inception phase had a negative impact on the widows' morale, as there was no one on the ground to help them establish themselves. The delays in the disbursement of funds also caused some strife and conflict among the group members as finger pointing crept into the group. The unexpected resignation of the Waste Management Facilitator from Environment Africa also resulted in communication gaps between the widows and recycling companies. Although the BEAN and the DPO were there to assist them, they were not the widows preferred channels of communication.

The widows had to resort to collecting paper only and stop the collection of plastics and bones because of transportation problems. Eco Plastics stopped collected from the widows arguing that it was not viable for their business, given the fact that the company is situated 100 kilometres from Bindura. The widows also have difficulties in transporting bones from the high-density suburb to the town centre where the collection depot is located.

The widows also complained of the delays in paying them by National Waste Collections. Some deliveries were only honoured after three months. To ease the difficulties in the payments, the widows were advised to open a bank account, which they have since opened and the Company is now depositing their money directly into that account. The low prices paid by the Company (Z\$3/kg) are not good enough to motivate the widows and new members to join the group. After intense lobbying, by Environment Africa, the Company has since improved their buying price to Z\$4,60/kg, which however is still very low given the harsh economic climate. The widows were also constrained by the lack of adequate and appropriate protective clothing. They only received a one off supply of protective clothing. The widows were also affected by the loss of some of their members due to illness.

The dependence of BEAN on member organisations for communication equipment and other logistics continues to affect the Network thereby hampering its effectiveness. The Network relies heavily on these organisations for faxes, telephones, vehicles, typing, printing and stationery. The organisations are only obliged to assist

the Network at their convenience. The absence of a reliable financial source to fund the Network's activities has been another organisational handicap. The Network relies entirely on donations from member organisations and other well-wishers to fund its activities. The initial set up in which the Network's funds were channelled through the Town Council created operational problems as, in most cases, the funds were released to the Network well after the activities that would have been fund-raised for were over and some of the members had to do the pre-funding.

However the Network has been advised to use its Constitution to open its own bank account. The central government departments as well as the Town Council just like many others in the country are well known for their red tape and bureaucratic tendencies. Most of the technical experts who represent their organisations/companies on BEAN volunteer their time and are usually not available for meetings and activities. BEAN's involvement in the day-to-day running of the Widows project is more than had been budgeted for. This is because the Widows have limited administrative capacity. Political support from influential politicians and councillors is minimum. This was recognised at the project planning stage and planned for as part of the awareness programme. A process, to raise awareness, has started which involves Councillors and Senior Municipal employees who are also politicians.

5. SUSTAINABILITY OF THE PROJECT

5.1 Financial Sustainability

The harsh macro-economic environment prevailing in the country presents the biggest threat to the project. The withdrawal of donor (Danida) support is already threatening Environment Africa's capacity to continue playing its facilitation role. Being a non-profit making organisation, wholly dependent on donor funding, the ability of the Organisation to build on the in roads made in Bindura is now under severe pressure and may not withstand the test of time.

The deteriorating economic climate will also compromise the ability of the mainly mining companies who have been the financial backbone of BEAN. Whether the companies will continue donating to the Network is also doubtful and this is evidenced by the failure of BEAN to get any donation, from the mining giants, for the 2002 World Environment Day celebrations. The Network desperately needs communication equipment if the chaotic and haphazard arrangements of this year's celebrations are to be prevented in future. With the aim of improving the liquidity of the whole project, Environment Africa is working towards the establishment of a local Green Trust Fund for Bindura.

As has been the case during the project life, market forces will largely determine the sustainability of the Widows Recycling Project. There is need for the widows to diversify and collect other recyclable items with a high market value and for the recycling companies to improve the prices they pay to all informal waste collectors.

5.2 Institutional and Technical Sustainability

The Bindura Municipal Council is responsible for passing the appropriate by-laws for solid waste management. Section 227(1) of the Urban Councils Act empowers urban councils to make by-laws concerning waste management within areas of their jurisdiction. The Bindura Town Council refuse disposal by-laws are however silent on source reduction and recycling. The payment for waste collection services is a fixed charge and this does little to encourage waste reduction. The Environmental Management Bill, if passed, will create an enabling environment for sustainable development.

The most important output of the whole Urban EPM Programme has been the creation of an enabling environment for information sharing, networking and stakeholder participation in waste management. Waste management awareness and capacity in the country has improved and the urban authorities, Bindura Town Council included, will easily tap from this expertise. However there is need to commit more resources to environmental management by both local and central government and move away from the dependence on donors. Participatory environmental planning and management can still be continued in Bindura under the framework of the Urban Council's Association of Zimbabwe (UCAZ) and Municipal Development Programme's Dialogue on Smart Partnerships for Enhanced Service Delivery in Urban Councils.

The continued existence of BEAN hinges to some extent on the commitment of its Chairman, Mr Dandara. The Chairman has been the unsung hero of the Network. He is more than dedicated to it and is determined to see it grow and become a shining example of participatory environmental planning and management. More often than not he has used his own resources to carry out activities for the Network.

5.3 Political Support

One of the cornerstones of sustainable development is political support and commitment. The project enjoys fairly significant political support from local politicians, including town councillors. BEAN has been able to work across both sides of the political divide. It has broken new ground in this politically sensitive constituency, by bringing together people of diverse social and political backgrounds, to organising social and environmental events that are beneficial to Bindura Town.

However there is need to win all the political support in the Town in order for the project to be more successful. This may also prove to be critical in mobilising local donor support. Presently, environmental issues play second fiddle to the normal political activities. However some politicians have been attending the environmental awareness campaigns organised by BEAN. Figure 1 shows the interaction between political socio-economical and biophysical components of sustainable development.

5.4 External Support

The withdrawal of Danida from Zimbabwe has left the project without a constant source of technical, material and financial support. The programme was initially targeted to run for ten years with an initial phase of 2 years, which have since elapsed and coincided with the pullout of Danida. However the stakeholders involved with the project are determined to continue implementing the project and are inviting donors to

support the project, carrying on from where Danida left. Local resources continue to be mobilised, through BEAN, to support the project.

6. RECOMMENDATIONS AT VARIOUS LEVELS

6.1 Central Government Level

The current Environment Bill is still not an Act of Parliament. The legal instruments are thus still fragmented and overlap each other hence the need for:

- Appropriate policy and regulatory instruments to meet pollution control, waste management and development objectives in urban areas;
- Effective monitoring and enforcement of environmental standards and policies e.g. the control of industrial emissions/discharges into municipal sewers, hazardous waste disposal in municipal landfills;
- Establishing and administering programs of technical and financial assistance to support agencies at lower levels of government;
- Empowering local governments to carry out local environmental management, to establish standards for local performance and to adopt measures to ensure accountability.

6.2 Municipal/Local Government Level

There is still an opportunity to use a sector specific plan for waste management: As shown in this case study, the work with Bindura Municipality, facilitated by an NGO, proved to be a successful pilot project. It however needs to re-examine its organisational structure in relation to waste management so that there is a closer link between the municipality's Health and Environment Committees. Since the Committees are provided for in the Urban Councils Act, there is scope for further discussion with the Ministry of Local Government and National Housing, the parent ministry.

Strategic planning process for waste management:

It provides a framework of objectives, options and impacts for making choices in waste management. It is participatory, user responsive and flexible. Beneficiaries are drawn into the planning and decision-making process at the outset and have ownership of the process as demonstrated by this case study.

Political support:

Councillors need to take special interest in the matter, as it needs political commitment in terms of resources allocation and mobilisation of people in their wards.

6.3 Community/stakeholder participation

Communities are important stakeholders in waste management. As consumers/users, they determine how waste management systems could best be utilised. Their preferences and willingness to contribute are important to the sustainability of these systems. Participatory techniques need to be used to assess willingness to pay and service desirability and satisfaction. However one has to take cognisance of different power relations within communities, as they are not homogenous.

BEAN should be strengthened in order to facilitate broad-based stakeholder participation. The culture of broad-based stakeholder participation is fairly new in Zimbabwe and Bindura is no exception. It is hoped that within the context of this project, new ways of environmental planning will emerge. This will give a model of a good public sector –civil society-private sector partnership that can be replicated at national level.

6.4 Ideal Institutional Framework

While recognising the central role Bindura Municipality plays in co-ordinating development in Bindura Town, in terms of its legal mandate, it is recommended that an integrated waste management system in which all stakeholders have a critical role to play be adopted. The following should characterise the nature of the stakeholder involvement:

- Local decision-making and management at the lowest possible level- a participatory approach;
- Responsiveness to user demands, multiple interests and gender roles;
- User and community contribution to costs for private and public benefits;
- Separation between suppliers of service and those making investment decisions;
- Competition between suppliers of service;
- Transparency in the application of rules;
- Accountability of all concerned.

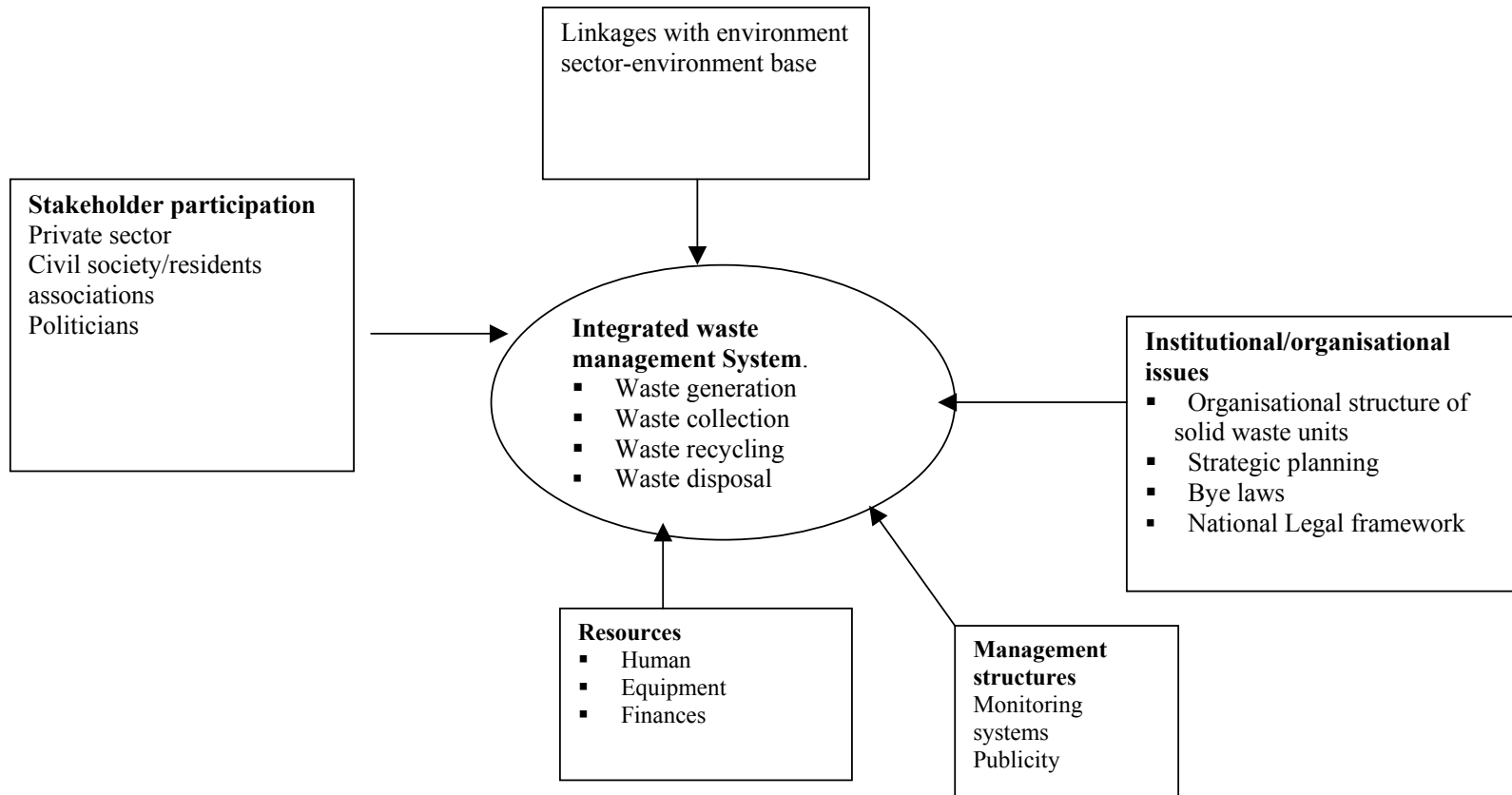
See also Table 2 and Fig 1 below.

Table 2: Proposals for a capacity building plan for waste management

<u>STAKEHOLDER</u>	<u>CAPACITY ISSUES</u>	<u>STRATEGIES TO BUILD CAPACITY</u>	<u>INPUTS</u>
WIDOWS	Organisational issues	Training in team building and organisational dynamics	Trainer plus administrative costs
	Cost effective waste collection systems	Use of low cost technology like carts with assistance from unemployed youths	Cost for carts and training in simple accounting
	Negotiation and representation with other stakeholders	Assertiveness skills training	Trainer plus administrative costs
Bindura Municipality	<p>Organisational/institutional issues</p> <p>Committee structure to be aligned i.e. Health and Housing and environment to have clear linkage for discussion of waste management from environment perspective.</p> <p>Institutionalised broad-based stakeholder participation including both politicians, civic groups the general citizenry e.g. through Task groups with enough political clout.</p> <p>Resourcing issues like equipment, personnel and budgeting for waste management.</p> <p>Planning for waste management including dump management, collection and recycling of waste.</p>	<p>Clear strategic plan for dealing with waste management from a holistic perspective.</p> <p>Seek funding for equipment or donations via Municipality to municipality twinning arrangements</p>	<p>Broad based Task Force plus resources for public consultation meetings.</p> <p>UCAIZ can approach the Danish association of local authorities or other sister associations on behalf of Council</p>
Civic groups including BEAN	Participation needs to be institutionalised so that it is not based on individual personal interest	Revisit effectiveness of structure of BEAN against the purpose it should serve	

Public sector (central government ministries)	Legal framework and policy support instruments	Constant update on policy review and dialogue with municipalities	
Politicians (Mayor, councillors, MPs and governor)	Political support and visibility of waste management issues on political agenda. Effective Bye-Laws on waste management Adequate supervision of executive for accountability.	Monitoring system of waste management processes including the linkages between diseases and waste management.	Awareness programs
Private sector	Structured involvement in the whole waste management cycle and utilisation of investment opportunities	Through strategic planning process role definition and openings for private sector discussed and agreed to. Bottlenecks identified and strategies worked out.	

Fig.1 Proposed stakeholder based solid waste management system.



7 CONCLUSION

The Urban EPM Programme has helped create a platform for stakeholder participation in developmental and environmental issues. The Zimbabwean Chapter of the Institute of Waste Management of Southern Africa presents a perfect platform for continual stakeholder participation and capacity development in waste management. The Urban EPM support to Bindura created two case studies from which other urban areas can learn from, with the view of setting up similar structures in their own areas. The Bindura Environment Action Network presents itself as a shining example of how stakeholders can organise themselves into a meaningful and formal institution for inputting into urban environmental planning and management. However marginal the income realised from the selling of waste might be, it is helping the widows albeit in a small way, meet their financial needs.

Despite the great strides taken by BEAN in raising environmental awareness in the Town coupled with the limited success of the widows project, the waste management problems in the Town are still evident. Litter is still found strewn all over the Town and the dumpsite is in a mess. This suggests that more effort and resources are required in order to consolidate the gains already achieved. This low impact of the Project gives weight to the fact that environmental awareness raising and education are processes which have to be implemented over a sufficiently reasonable time before there is noticeable change in people's attitude and behaviour.

The successes of this project provide interesting learning points. As such it serves as a good pilot project worth replicating. Figure 3 summarises the interaction between the various stakeholders. Transparency among these stakeholders and their sharing of a vision is crucial for sustainable development.

ANNEX 1

The Relationship Between Political, Social and Economic Processes in Environmental Planning

the environment is the interactions between the biophysical and the economic, political and social dimensions of our life worlds

