

By:

[Environment](#), [Pollution](#)



By: Mahlet Seleshi Submitted to: Ato Chala Amdissa A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor in Public Administration and Development Management in the Faculty of Business and Education and Department of Public Administration and Development Management July, 2009

ACKNOWLEDGMENT

Thank to the almighty God. I want to express my deepest gratitude to my advisor Ato Chala Amdissa for his unreserved and constructive comments and directions while carrying out this research. My deepest gratitude also goes to my beloved brothers Tsegaselassie Seleshi and Fanuiel seleshi for their support in any way possible. I am indebted to you both. I also like to forward my heart felt appreciation to Azeb Mengistu for her valuable comments starting from proposal development to the finalization of the write up. My sincere thanks go to Anteneh M., W/ro Emrakeb, and Assistant professor Mekuria Mekasha for their support with valuable advice and comments. I am also thankful to Dr. Weldeab, Ato Biniam, Dr. Sherman, Ato Yimer, Ato Wondu, and other friends of mine who have helped me through all the processes of the research and the providing me with materials used in the research. Last but not the least I want to thank Merid for conducting the interviews: and for all the respondents that have participated in the study for sacrificing their precious time.

ii Table of Content Page No.

Acknowledgment .....	.....
..... i Table of	
Content .....	.....
.. ii-iii Lists of	
Table .....	.....

..... iv Lists of  
Graph .....  
..... v  
Acronyms .....  
..... vi  
Abstrcut .....  
..... vii Chapter  
One .....  
..... 1 1. 1. Background of the  
Study ..... 1 1.  
2. Statement of the  
Problem ..... 3  
1. 3. Research  
Questions .....  
..... 5 1. 4. Study  
Objectives .....  
..... 5 i, General  
Objective .....  
..... 5 i, Specific  
Objectives .....  
..... 5 1. 5.  
Methodology .....  
..... 6 1. 5. 1. Justification of the  
Case ..... 6 1.  
5. 2.

Methods .....  
..... 6 1. 5. 2. 1. Data Collection

Method..... 7 1.  
5. 2. 2.

Interview .....  
..... 7 1. 5. 2. 3.

Observations .....  
..... 7 1. 5. 3. Sampling

Method .....  
.... 8 1. 5. 3. 1. Sample Method and Sample Size

Determination ..... 8 1. 5. 4. Data  
analysis .....  
..... 9 1. 6. Study

Limitations .....  
... 9 1. 7. Significance of the  
Study..... 10 1. 8.

Organization of the  
Paper ..... 10 Chapter  
Two .....  
. 11 2. Definitions and Conceptual  
Framework ..... 11 2. 1. Clarifications  
and proposed definitions of community, participation and community  
participation .....  
..... 11 2. 1. 1. The Nature and Implementation of Community  
Participation..... 13 2. 1. 2. Participation in Practice and

the Elements of Community Participation .....	16	2. 1. 3. The Needs and Benefits of Community Participation .....	18
Management .....	20	2. 2. Solid Waste Management .....	20
2. 2. 1. Concepts of Waste Management .....	20	2. 2. 2. Types of Solid Waste .....	23
2. 3. Methods of Waste Management .....	24	2. 3. Community Participation in Solid Waste Management .....	26
Literature .....	29	2. 4. Empirical Literature .....	29
2. 4. 1. Practices of Community Participation in Solid Waste Management .....	29	Chapter Three .....	31
... 31	3. Data Analysis and Interpretation .....	31	3.
1. Socio-demographic background .....	31	3. 2. Evaluation of solid waste management problem at the two study area .....	35
3. 3. Causes of the SWM problem .....	36	3. 4. The responsibility .....	39
.... 39	3. 5. Awareness on solid waste management		

mechanism/technique .....	40	3. 6. Types of the solid
waste at the two study area .....	44	3. 7.
Solid waste collection transportation and disposal service provider to the community .....	46	3. 8. Timeliness of the
.....	46	3. 8. Timeliness of the
services.....	47	3. 9.
Participation in Solid Waste Management .....	50	3. 10. Payment
for SWM service .....	52	3. 11. Level of solid waste disposing serice in Merkato and Atikilt Tera .....
52	53	3. 12. Community participation other than paying fees for SWM service .....
55	55	Chapter
Four .....	60	4.
..	60	4.
Summary .....	60	4. 1. Major
.....	60	4. 1. Major
findings .....	60	4. 2. Factors Affecting Community
60	60	4. 2. Factors Affecting Community
Participation .....	60	4. 3.
60	60	4. 3.
Conclusion .....	61	4. 4.
.....	61	4. 4.
Recommendation .....	62	
.....	62	
Reference.....	70	Aneexes iv Lists of Tables Table Nol. Title Page Table 1A and
.....	70	Aneexes iv Lists of Tables Table Nol. Title Page Table 1A and

1B: Respondent educational background .....	
Table 2: Responent evaluations of solid waste management problem .....	Table 3: Respondent view on the cause of solid waste management problem .....
Table 4: Respondent opinion on responsiblie body for waste problems .....	Table 5A: Respondent awareness regarding the SWM mechanisms/techniques .....
Table 5B: Respondent awareness in relation to waste separtation, reduction and desposing .....	Table 6: Respondents opinion on awareness raising responsibilities.....
Table 7: Respondent action if they found the container full or absences form the study area .....	Table 8: Payments for SWM service .....
Table 9: Amount of fee per month for waste disposal .....	Table 10A: Vender respondent involvement .....
v List of Graph Graph 1: Respondents sex .....	Graph 2A and 2B: Respondents age .....
Graph 3: SWM serice provider.....	Graph 4: Timeliness of the serice .....
Graph 5: Respondent answers weather they ask their rights or no .....	vi Anexess Anex A: Interview guid with

venders .....	Anex B: Interview
guid with buyers .....	Anex C:
Interview guid with government	
officials .....	Anex D: Interivew guid Micro
and Small Scale Interprise .....	Anex E: Interivew
guid with .....	vii
Acronyms	
AU .....	
African Union CBO .....	Community
Based Organization CP .....	
Community Participation ECA .....	
Economic Commission for Africa ENDA .....	
Environmental Development Action	
FAO .....	Food and Agriculture
Organization ICO.....	Information
Commissioner's Office	
ILF .....	Independent
Living Fund MSSE .....	Micro and
Small Scale Enterprise NGO .....	Non
Governmental Organization RLDS .....	
Regional and Local Development Studies SBPDA .....	Sanitation
Beautification & Parks Development Agency	
SW .....	Solid
Waste SWM .....	Solid Waste
Management	



UN .....

United Nations UNDP ..... United Nations  
Development Program UNHCR ..... United Nations  
High Commissioner for Refugees

UNICEF ..... United Nations Children  
Fund

viii Abstract Background: inadequate solid waste management in urban areas is a major factor affecting the health of citizens and other environmental disasters. This problem is said to exist in the capital city, Addis Ababa. Anecdotal evidences show that specific areas like Atikilt Tera and Merkato are believed to have low level of SWM. In addition, the low level of community participation in SWM is frequently referred to as the main factors for the waste management crisis. Objective: the objectives of this study was thus to investigate the solid waste management practice and assess the level of Community Participation at Merkato and Atikilt Tera area. The specific objectives are to assess the solid waste situation; assess the role of Community Participation in the process of solid waste collection, transportation and disposal; identify the factors which affect the collection and disposal of solid waste; and measure the role of the private sector, community-based organizations and the responsible bureaus (SBPDA) in solid waste management of Merkato and Atikilt Tera area. Method: A semi structured interview is used with random sampling technique for sample selection for vendors and buyers. An interview is used with purposive sampling techniques for the officials. Observation was also used in the study. Conclusion and recommendations: there is a serious lack of SWM in the two study areas. Aside from the other causes for this problem the lack of

community participation is the major factor contributing to it. According to this study, the lack of awareness, lack of government concern, the presence of information gap between government and community; lack of controlling mechanism over the service provider are the most important factors for the absence of community participation. The study recommends adequate government support, devising a technique to compost wastes, developing alternative waste disposal options, involving private sectors, active community participation, and preparing appropriate policies in SWM. 1

Chapter One 1. Background of the Study Addis Ababa is the capital city of Ethiopia and a diplomatic center for Africa, home to African Union (AU) and Economic commission for Africa (ECA). The city is also a seat for regional head quarters of many organizations like UNDP, UNICEF, UNHCR, FAO, ILF, and ICO (Å... "w 2®®®: 15). Although basic infrastructures and other social services are found relatively in better situation than other cities of Ethiopia, the city is still little more than a town in many respects. The city is full of social, economic and demographic problems. One of the major problems is the inadequacy of the solid waste management and it is considered as the major environmental problem in Addis Ababa. Inadequate solid waste management has resulted in the accumulation of waste in open lands, in drains and in the residential and commercial area of many people, causing health problems, environmental pollution (water, soil and air pollution), and clogging of drain (Tadesse, 2004: 1). World Bank (1993: 63) also said that environmental pollution affects human health in a variety of ways, from itchy eyes and chest discomfort, to chronic bronchitis and asthma attacks, to premature death. This situation is believed to be a consequence of poor

environmental conditions and an ever-present risk of epidemics, which in turn present a formidable threat to health and productivity. There is thus a need for improved waste management (Tadesse, 2004: 1). Currently, solid waste collection coverage has reached 81.3 % (www.addisababacity.gov.). This indicates that, the remaining 19 percent of waste is disposed off through informal means. In this regard, community participation (CP) is argued to be low in terms of waste removal. <sup>2</sup> For several reasons, improving this environmental problem in the city has to be related more directly to the issues of enhancing community participation. Just about everyone is involved to improve the above mentioned environmental problem. Community Participation is intended to bring empowerment to influence priority setting in pollution management and support for enforcement (David and Melinda, (1992: 4), Glasson and etal (1994: 141-142), World Bank (1999: 72)). Involvements of private institutions, non-governmental institution and community at large, in waste management particularly controlling generation of waste at the source, and also participation in collection, transportation and disposal process is highly important. It is anticipated to bring the power to exercise or ask their right (since they are taxpayers) and control over waste management service to the point where they actually get service delivered, thereby improving accountability and effectiveness, and promoting people's feeling of ownership of the service executed in their compounds and surroundings (Ibid) . Therefore, community participation in improving the existing service delivery in the city is very crucial. One of the sub-city of the Addis Ababa, Addis Ketema, meaning New Town in Amharic, located west of Arada, is best known for its open market, Merkato, which

competes with Roque Santeiro in the Angolan capital Luanda and Oshodi market in Lagos (Nigeria) for the title of largest market in Africa (www. addis-ababa. wantedinafrica. com). The central wholesale fruit and vegetable market called Atikilt Tera, is located in Arada Sub City. Local shopkeepers and stallholders live in poor conditions in the densely populated residential and market areas on the edge of Merkato and Atikilt Tera. There are high volume of waste produced at the time of selling and buying process. 3 It is clear from the above description of the activities and the whole situation of the subcity that there is a need to strengthen the waste disposal system and devise a mechanism for community participation in the process. 1. 1.

Statement of the Problem Various researches, such as a Masters Thesis study was conducted by Solomon Asrat (AAU- RLDS, 2008) recommended that waste management can be best delivered only when the community takes active participation in the service. Beyene also recommended that raising public awareness not only on the importance of creating a healthy environment but also on the mechanisms of controlling waste generated at the source, alternative disposal mechanisms and the spirit to shoulder responsibilities among the general public, local and traditional institutions, business community, non-government and governmental institutions through regular campaign, education and training programs should be stressed. In addition to this, as with any other environmental strategy, there is a need for public involvement and political support in the identification of priorities and the implementation of the necessary enabling measures (World Bank 1999: 31). Also city Administration Mekuria Haile, Said all concerned bodies should exert efforts to solve the sanitation problem since the current

status of the city which is the capital of Africa and seat of various international organizations is not up to its standard (Addis Ababa City Administration). According to some official records, most people do not participate in environmental cleaning campaigns organized by kebeles (Ä... "w' 2®®®: 15). This fact shows of the trend 4 on how low the participation is in terms of waste management, in most parts of the city including in the area of Merkato and Atikilt Tera Addis Ketema Sub-City of Addis Ababa. Inadequate municipal and business as well as household solid waste collection and disposal creates a range of environmental problems in Addis Ketema Sub City particularly at the area of Merkato and Atikilt Tera. Low level community participation has its own negative impact on solid waste collection. Any person while walking around Merkato and Atikilt Tera will able to observe, flying 'festal' (which is increasingly used for packaging), solid waste are deposited and scattered on public spaces like road sides and open spaces. Dumps containing a large range of waste, the bad smell and the hazards it poses for the people. The situation is exacerbated around Merkato and Atikilt Tera area where households and businesses cannot make use of garbage collection containers. Lack of the most basic solid waste management services in the two areas causes negative effect on business and profitability of the vendors. The adverse effect of inadequate solid waste service on productivity and economic development of the area of Merkato and Atikilt Tera is expected to be significant. Thus, attempt will be made to find out the level of community participation in the area of Merkato and Atikilt Tera, in the solid waste management service, which is currently run under the responsibility of Sanitation Beautification & Parks Development

Agency (SBPDA). 5 1. 2. Research Questions The study will attempt to address the following question: 1. What is the participation level of the community in collocating, transportation and disposing solid wastes in the Atikilt Tera and Merkato? 2. What are the factors affecting the level of community participation in solid waste management in the two areas? 3. How much and how well do the City Administration and Merkato and Atikilt Tera Kebele Administrations cover waste management needs in the areas? 4. How much and how well do the private sector and community-based organizations participation in the waste management process? 1. 4. Study Objectives General Objective: i, To investigate the solid waste management practice and assess the level of Community Participation at Merkato and Atikilt Tera area. Specific Objectives: if~ To assess the solid waste situation in the area of Merkato and Atikilt Tera area if~ To assess the role of Community Participation in the process of solid waste collection, transportation and disposal in the area of Merkato and Atikilt Tera. if~ To identify the factors which affect the collection and disposal of solid waste in the area of Merkato and Atikilt Tera. if~ To measure the role of the private sector, community-based organizations and the responsible bureaus (SBPDA) in solid waste management of the Merkato and Atikilt Tera area. 6 1. 5. Methodology 1. 5. 1. Justification of the Case The study population is selected from Atakilit Tera and Merkato areas. These areas are selected based on the following criteria: i, The volume of solid waste produced: In the areas there are high volume of waste produced at the time of selling and buying process, especially when the product is fruits and vegetables. ii, Population density in the area: People from those area as well as from other areas are gathered for shopping

purpose. More people are believed to dispose more waste. 1. 5. 2. Methods

The data collection involves methodological triangulation and data triangulation, or a combination of methods and data sources were important way to strengthen a study design in a single problem (Patton, 1990: 187). The use of several methods (qualitative and quantitative) and different data sources (primary and secondary) were helpful to find adequate information and to get individual, group and institutional views (Yeraswork, 2000: 296). In general, qualitative and quantitative data were generated from primary and secondary sources. The secondary sources include legislation and policy documents, research works and other pertinent documents. Regarding the primary sources, fresh (qualitative and 7 quantitative) data were generated to supplement the secondary data reviewed. These data were gathered by both structured and in-depth interviews from respondents at the selected areas. 1. 5. 2. 1. Data Collection Method The study was applied to different techniques in course of significantly assessing the community participation in solid waste management in the two areas. For the collection of primary data, interview and direct personal observation were employed and secondary data from various documents were reviewed. 1. 5. 2. 2. Interview

Semi-structured interviews were held with randomly selected buyers and sellers in the selected areas. Interview was also conducted with the relevant and concerned officials. These include Addis Ababa City Administration Office (SBPDA Office), Merkato and Atikilt Teras Kebele Chair and Micro and Small Scale Enterprises and an NGO called Green and Clean Addis Ababa Organization. This organization was selected because it work on creating awareness on solid waste management mechanism/techniques. Interviews

were held to extract necessary information for the study. The interviews were conducted by using recording instrument by the data collectors or interviewer. 1. 5. 2. 3. Observations Personal observations through using photographs of the setting of the study were conducted to support the data analysis with valid pictorial inputs for the study. 8 1. 5. 3. Sampling Method The fact that the area of this study is a market place has made it difficult to acquire a complete list of all the study population from the respective management organ, the kebele. Hence the respondents of the interview were selected using opportunistic random sampling technique. i. e. the people found at the study areas at the time of data collection will have equal chance of being interviewed. Therefore the sample size is determined to be 50 taking all the time and resource constraints of the study in to account. Hence, since the total day of data collection is 6 days (Monday to Saturday), interviewees will be given to an amount of four respondents for the first five days and five respondents on Saturday. One additional respondent is included at Saturday since there were usually be more people (buyers) coming on the day. The same techniques were used for both Merkato and Atikilt Tera areas. A total of 50 semi structured interviews were conducted from both the areas (twenty five from each area). Eighteen vendors and seven buyers from each area were selected randomly and the interview had taken place. Moreover, in-depth interview from the two areas was conducted with Kebles administrators (Kebele 01/02/03 Administration Office from Merkato Kebele 01/02 Administration Office from Atikilt Tera) and Addis Ketema and Arada Sub-City administration officers, SBPDA officers, Green and Clean Addis Ababa Organization manager, MSSE head and member and



also with Atikilt Tera are venders committees chair. 9 The responses from both the semi-structured interviews and In-interview incorporated with observations are discussed and the implications are also presented. An attempt is made to include interpretation in line with the basic research questions raised in chapter one. Interviews that were conducted with concerned government officials, MSSEs and NGOs were selected based on purposive sampling method. Hence the number of interviewees were determined by the information gathered each time an interview is conducted. The interview was continued until the information is saturated. 1.

5. 4. Data Analysis Information obtained through the various document analyses was integrated with the one obtained through semi-structured and in-depth interview. The data are presented using photograph, frequency tables; charts, figures and other statistical analysis tools. 1. 6. Study Limitations Due to constraints of time and resources and to make the study manageable, the primary data collection task of the study was geographically confined to the Atikilt Tera and Merkato areas on matters of community participation in Solid waste management. Other aspect of waste management is not discussed in this study. Besides that study covers only aspects related to government and the community based SWM system ignoring the contribution of individual effort and other variables. 10 1. 7. Significance of the Study The significance of the study is to identify the strengths and weakness of CP in waste Management and recommend some of the basic mechanisms of ensuring effective and sustainable community participation to enhance sustainable solid waste management. To be able to achieve this purpose the study will assess the level of community

participation in solid waste management and to identify the factors affecting the level of participation. The study will also explain the impact of the ongoing participatory programs on solid waste management and their effect on the improvement of the livelihood of the community and environmental protection.

### 1. 8. Organization of the Paper

This study comprised four chapters. In chapter one, the introduction part, the researcher have deal with the statement of the problem and objectives of the study. In this part is also presented the methodology used to conduct the study. Chapter two presents the theoretical and conceptual framework. It discussed the concepts of community participation and sustainability, the indicators of community participation and the concerned bodies involved in Community Participation. It provides some information that is vital to understand and analyze the situation of solid waste management services of the city. Chapter three analyses and discusses the practices of community participation in solid waste management in the study area. Chapter four summarizes the major findings, conclusions and suggests recommendations based on the analyses and discussions.

## 11 CHAPTER TWO LITERATURE REVIEW

### 2. Definitions and Conceptual Framework

#### 2. 1. Clarifications and proposed definitions of community, participation and community participation

For the purpose of this paper, here are presents definitions and concepts more related with the study topic. Community is defined as “ the term which is applied to societies and social groups where they are considered from the point of view of the geographical distribution of the individuals and institutions of which they are composed". It follows from the definition that every community is a society, but not every society is a community. National Board of Young Men's

Christian Associations quoted (Park and et. al. 1959: 24). " The community should be viewed as a process involving social structure and cultural behavior..." (Brokensha and Hodge, 1969: 1) Participation is defined by World Bank as " a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them" (qtd in Chambers, 2005: 103). Community Participation — " By definition, community participation can only be expressed through an activity of some kind. Hence there is always an interaction between the activity itself and the community group involved with that activity" (Abbott, 1996: 131).<sup>12</sup> In the late 1960s there was some exploration of different models of participation and their relationship to community development. Since then concern around popular and community participation in key agencies such as the United Nations, has been part of the discourse of community development. As Midgley et al (1986: 23) have noted, the notion of popular participation and that of community participation were interlinked. The former was concerned with broad issues of social development and the creation of opportunities for the involvement of people in the political, economic and social life of a nation, 'the latter connotes the direct involvement of ordinary people in local affairs'. As such community participation can be seen as linking with older concerns with associational democracy and the like. In some countries the notion of community participation has reappeared in discussions around the need to bring some local services and facilities more directly into the control of local people (community development @ the encyclopaedia of informal education, n. d) Shepherd (1998: 7) describes it " for more than two decades development

theorists and practitioners have lectured the world about the need for participation of ordinary people in development". According to some, participation express " as currently understood, participation involves various communities and interest groups having a say in and contributing to the development processes that affect them" (Eversole and Martin, 2005: 7). One online integrated pilot project on community participation in solid waste management (1996: 3) study, express that, " Community participation is the process by which individuals and families assume responsibility for their own health and welfare and for those of community and develop the capacity to contribute to theirs and the community development". In addition to this it said, " They come to know their own situation better and are motivated to solve their common problems. This enables them to become agents of their own development instead of beneficiaries of development aid" (Ibid).

Another writer also stated that " community participation is a process in which community members are involved at different stages and degrees of intensity in the project cycle with 13 the objective to build the capacity of the community to maintain services created during the project after the facilitating organizations have left" (Laroui, 2000: front page). On the other hand, Oakley stated, " Participation emphasizes on the achievement of predetermined targets rather than the act of participation, it is essentially a short term exercise. This is to mean that local people are mobilized to directly involve in the existing task, but the participation evaporates once the task is completed" (qtd. in Gebremedihin's 2004: 18). The expression indicates that participation is a vehicle to achieve predetermined temporary objectives. A book entitled Community organization in Africa argued that "

citizen participation does not just happen. It must be sought energetically and imaginatively and developed continuously. This is a job never completed" (1959: 260-261). This argument suggests participation as an ongoing activity which should not be used as an instrument to achieve predetermined once short term activity. According to Reid (2000: 6) "Community participation is one of the key ingredients of an empowered community". He also express that "Participation is the heart that pumps the community's life blood - its citizens in to the community's business. .... Community participation is far more than a requirement; it is a condition for success" (Ibdi) 2. 1. 1. The Nature and Implementation of Community Participation Different scholars explain the nature of community participation in different ways. According to Abbott (1996: 4), "Community participation is relevant in every sector of development whether it is education, health, conservation, agriculture, or water and 14 sanitation. When it is practiced successfully it transforms programs and provides the critical component which can promote sustainable development". He gives emphasis on the understanding of the nature of community participation and said, "In a world of rapid change, effective and meaningful community participation is a fundamental basis of security, either of the individual or of the state. A clear understanding of the nature of participation is central to the search for peace, social justice and democracy" (Ibid). Abbott (1996: 4) also argued that: "As with any concept which has strong social and political implications, it is often convenient for those who interact with the process to interpret it in a way which meets their own interest, as well as their own particular perceptions. Thus, for example countries might see community participation

simply as a way of mobilizing community support for projects; NGOs in the field, as well as CBOs, may see it as a vehicle through which local communities can take control of the development process and bring about sweeping political change; development agencies may see it as a method of improving project performance, whereas many governments and civil servants view it simply as threatening and subversive" Yeraswork has also said that " the nature of participatory intervention is expected to bring about has to be determined first. That is an intervention, which seeks to promote participation must be aware and defined clearly at the start of the intervention as to the likely nature of the participation it expects to promote. He also said that " In fact, this may change with the nature of the intervention. This awareness might help projects or development initiatives to determine the appropriate methodologies to promote participation" (qtd. In Gebremedin 2004: 18). Moser recognized that: "... historically, where the activity is a project, then the project has tended to dominate and determine the nature of the participation process" (qtd in Abbott 15 1996: 131). Thus it is said that the relationship between the two as one of dominance/subservience, the basis of the end approach to participation was the dominance of the participation process over the project (Ibid). Apart from the above explanation in Oakley and et. al., the means and end approach has been explained. " Participation as a means is said to imply the use of participation to achieve some predetermined objectives. This is to say that participation is a way of harnessing the existing physical, economic and social resources of rural people in order to achieve the objectives of development programs and projects". Participation as an end, on the other

hand, " is seen essentially as a process which reveals overtime and whose purpose is to develop and strengthen the capabilities of rural people to intervene more directly in development initiatives" (qtd. in Gebremedihin, 2004: 16-17). Moser argued that (qtd. In Abbott (1996: 131): " In reality it is not the evaluation participation either as a means or as an end which is important, but the identification of the process where by participation as a means has the capacity to develop in to participation as an end. Thus there is a transition from dominance of the project to dominance of the participation process. This seems logical in theory, but it has serious practical difficulties". Abbott (1996: 131), concludes that, " The fundamental flaw from which most research suffers is that it is reductionist in its approach, rather than analytical. Thus it seeks to explain community participation in terms of a single, clearly defined ideal". He also said, " to achieve this goal, key phrases have been developed which aim to encapsulate the essence of the community participation process and develop a single form of participation 16 which is applicable to all situations in all parts of the world". In his consideration " the interaction between the activity and the beneficiary community does not operate in that way and should be seen rather as a symbiotic relationship between two complex processes". Abbott also put the nature of activity in two ways as follows: " Depending on the nature of the activity this interaction is believed to operate in two ways. The first is limited to the beneficiary group and the activity, whereas the second is wider, embracing a range of outside actors". He supposes that the elements of community participation are the products of these interactions and says that it is these elements which translate the conceptual framework

from a theoretical concept to a practical vehicle applicable to real situations"

(Ibid). 2. 1. 2. Participation in Practice and the Elements of Community

Participation There are different ways that are believed to be right to achieve deep community involvement by different writers. This implies that there is no one right way that applies for every community. Yet, there are some common elements to sound participation that will be found in all

communalities. These elements as stated by Norman (2000: 3-4), are: Many people: the first and most obvious principle of participation is that many people are involved. The work of the community is not considered to be the special province of a knowledgeable few-perhaps the same elite leadership who has always run community affairs-but it is the business of everyone. Participating communities engage many people in their work (Ibid). 17 Many

Centered: Participating communities are open to involvement by many groups. They divide up responsibilities in a way that draws on the special talents and interests of contributing organizations by assigning responsibility for independent action to these groups. In short, under the overall umbrella of a representative community board, power and responsibility are decentralized in a participating community. The result is a community that has many centers to activity and that is capable of reaching deeply into the natural enthusiasm and talents of its citizens (Ibid). Open and Advertised:

The business of participating communities is open to all and widely publicized. Citizens are informed by a variety of means about the community's work, and opportunities for citizens to find meaningful roles in contributing to that work (Ibid). Open to All Ideas: In participating communities, there is no such thing as a bad idea. All ideas are welcomed



and treated with respect. This not only honors the person whose idea is put forward, but it also sets a welcoming tone (Ibid). Inclusive and Diverse: In a participating community, no distinctions are drawn among various groups and types of personalities who offer themselves to community involvement. All should be welcomed into useful roles. Participating community do not sit by passively, waiting for a diverse groups of citizens to present themselves for involvement (Ibid). Open Mind, Open Process: Participating communities operate so that it is clear to all that they are not controlled by any one organization, do not represent any one group of people, and are not limited to any one philosophy or way of doing business (Ibid). Another writer, (Abbott, 1996: 132), on the other hand has generated a total of 11 elements which appear to be important and need to be accounted for the community participation structure. These are: i, The objectives of the activity; ii, The intensity of participation; iii, The instruments of participation; iv, The wider surround or environment which influences the participation process; v, The specific arena within which the participation process operates; vi, Identification of the primary actors; vii, The roles, agendas and relationships of the different actors; viii, The point of input into the participation process, and who decided this; ix, The practical implantation the participation framework; x, The differing needs of the community; xi, The needs of the other actors.

### 2. 1. 3. The Needs and Benefits of Community Participation

It has been described in Barratt et. al, the need to participate in the analysis of the situation, to bring about awareness of the problem, is essential. When interventions are undertaken with the community, to meet their own needs, the people respond readily. Their taboos, cultures and values can not be

broken down when they participate. But if the people had not been involved, they would have felt that their traditions were being undermined as usual, which is the response to many imposed interventions (1976: 60). 19 Among the various benefits of community participation the following are the few that benefit mostly to the society that are identified by a solid waste specialist, A. Subash (n. d):

- i, Building local capacities and capabilities. for instance increase awareness of knowledge and capacities, may improve the ability to negotiate as equals with authorities and other stakeholders to promote common objectives and increase responsiveness to conflicts with the community
- i, Involvement in decision making. Participation can ensure that the different needs and problems of the community are integrated in any interventions.
- i, Empowerment. Community participation may give people the opportunity to devise and initiate strategies to improve their situation.
- i, Involving the community in the project may increase local ownership of projects and enhance a sense of responsibility for maintaining services provided by projects. These aspects are both essential for the durability and continuity of interventions.

Reid (2000: 35) has also explains the benefits of community participation as: Community participation is not an idle principle. Communities that have chosen to follow it find that not only do they derive more satisfaction from the joy that comes from open community involvement, but they also said to achieve more results, more rapidly, and with greater benefit to the community as a whole. In short, participating communities succeed better than those that only talk about this important principle ... communities that engage their citizens and partners deeply in the work of community development are believed to raise more

resources, achieve more results, and develop in a more holistic and - ultimately-more beneficial way. 20 2. 2. Solid Waste Management 2. 2. 1. Concepts of Waste Management Pollution and waste accumulation have plagued human beings ever since man started living in permanent settlements, and a multitude of solutions have been developed throughout the centuries reflecting contemporary attitudes toward sanitation and ideas with respect to a decent environment (Grava, 1969: 1). Issue of waste management is not a problem of modern times only, but it is an old aged problem of mankind that did not get a lasting solution so far. Most people have mostly been careful to remove wastes from their own private dwelling, but the wastes are usually dumped immediately outside. This inherent public irresponsibility is a curious, human characteristic which was in evidence in the ancient advanced civilizations and is still with us today (Biruck 1969: 17). Thus an organized community must therefore protect itself against the negligence of its own members through regulations, public works programs, and enforcement of quality levels as defined by itself (Grava, 1969: 1). In Ethiopia solid waste and solid waste management has been defined by Federal Negarit Gazeta (No. 13, 12th February, 2007... page3525) 12th ) as follows: " Solid Waste means any thing that is neither liquid not gas and is discarded as unwanted"; " Solid Waste Management means the collection, transportation, storage, recycling or disposal of solid waste, or the subsequent use of a disposal site that is no longer operational. 21 The level of industrialization increases or even simply as a result of growing access to packaged and consumer goods, waste disposal becomes an increasing problem in virtual societies. The problems are typically associated with

nonbiodegradable or bioaccumulative substances such as waste pesticides, solvents, heavy metals, and chemical sludges. These are often production wastes, but they can also arise from inappropriate application (pesticides) or poor consumer behavior (waste motor oils). The development and widespread use of new substances such as plastics and the products that they have made possible have improved the standard of living for millions, but they have also introduced new threats to the environment (World Bank, 1998: 30). Thus appropriate waste management techniques as to apply. Wentz (1989: 117) point up waste management techniques accordingly. "Solid waste management is an all-encompassing term. It can be used to describe several distinct processes: the elimination or reduction of waste; the recycling or reuse of waste material; the treatment or destruction of waste". Wikipedia one of online free encyclopedia put in plain words and diagram about the concepts of waste management as follows: "Waste hierarchy - the waste hierarchy refers to the "3 Rs" reduce, reuse and recycle, which classify waste management strategies according to their desirability in terms of waste minimization"(en. wikipedia. org/wiki). Wentz (1989: 117) also state waste minimization as "the optimum choice of waste management techniques". 22 (en. wikipedia. org/wiki). "The aim of the waste hierarchy is to extract the maximum practical benefits from products and to generate the minimum amount of waste" (en. wikipedia. org/wiki).. "Extended producer responsibility - Extended Producer Responsibility (EPR), as stated in the wikipedia, is a strategy designed to promote the integration of all costs associated with products throughout their life cycle (including end-of-life disposal costs) into the market price of the product. It is also

described that extended producer responsibility is meant to impose accountability over the entire lifecycle of products and packaging introduced to the market. This, according to this explanation, means that firms which manufacture, import and/or sell products are required to be responsible for the products after their useful life as well as during manufacture (Ibid). i, Polluter pays principle — the third concept which is Polluter Pays Principle is a principle where the polluting party pays for the impact caused to the environment. This is suggested with respect to waste management, which generally refers the requirement for a waste generator to pay for appropriate disposal of the waste (Ibid). Prevention Minimization Reuse Recycling Energy recovery Disposal most favoured option least favoured option 23 Some are put the wastes management refers to the “ 4 Rs” in the following ways: Four Rs (Refuse, Reuse, Recycle, Reduce) to be followed for waste management (<http://edugreen.teri.res.in/explore/solwaste/segre.htm>): 1. Refuse. Instead of buying new containers from the market, use the ones that are in the house. Refuse to buy new items though you may think they are prettier than the ones you already have. 2. Reuse. Do not throw away the soft drink cans or the bottles; cover them with homemade paper or paint on them and use them as pencil stands or small vases. 3. Recycle. Use shopping bags made of cloth or jute, which can be used over and over again [will this come under recycle or reduce?]. Segregate your waste to make sure that it is collected and taken for recycling. 4. Reduce. Reduce the generation of unnecessary waste, e. g. carry your own shopping bag when you go to the market and put all your purchases directly into it. These solid waste management mechanisms/techniques were found to be adopted by the Green and Clean

Initiative Addis Ababa as the 4 " S" rules (¾Ä®Ä†“ >[“Ä•Ä^ >Ä‡= e >uv T◊u` ,  
 2®®1). 2. 2. 2. Types of Solid Waste Solid waste can be classified into different types based on different criteria. For instance, solid waste products may be described according to particle size as rubble, gravel, grit, ash, or dust; or according to their origin as overburden or spoil from mining operations, or slag or clinker from industrial processes. The chemical constituents of wastes are loosely classified into organic or inorganic substance. The imprecise term 'organic' is used for compounds of carbon, other than its oxides, metallic carbonates and related compounds. 24 Many organic waste compounds originate from living organisms, but others are manufactured. All other chemical compounds are described as non-organic or inorganic in composition. Small quantities of so-called biological wastes are produced by some food processing plants and medical and research institutions. These solid and effluent wastes are characterized by the presence of micro-organisms and a wide range of complex organic compounds (John and etal. 1981: 21). The previously cited book on the other hand classifies wastes based on their production sectors. There are eight broad sectors, according to the type of producers or industry from which the solid waste originates. These are: i, Domestic sector, commercial and retail trade sector, industrial manufacturing sector, construction industry sector, extractive industry sector, agricultural sector, nuclear industrial and power sector, food processing industry sector (Ibid) 2. 2. 3. Methods of Waste Management It is inevitable that as there are different types of waste there will be varying methods of waste disposal. Briefly most solid wastes are deposited on land as tips or spoil heaps, or as land infill to quarries and mine

shafts, or as dumps containing a large range of materials. Waste is produced continually so there is often a need for some sort of storage facility. In respect of environmental pollution the quantity, the treatment, and disposal methods of waste are of prime importance (John and et. al. 1981: 84). As has been stated in the Wikipedia, the free encyclopedia (en. wikipedia. org/wiki) there are three major methods of waste management: 1. Disposal methods: there are two methods of waste disposal (Ibid). 25 i, Landfill method: involves waste to dispose it off, and are often established in abandoned or unused quarries, mining voids or borrow pits. ii, Incineration: is a disposal method that involves combustion of waste material and converts waste materials into heat, gas, steam, and ash 2. Recycling methods: is the process of extracting resources or value from waste. There are three methods of recycling (Ibid). i, Physical reprocessing: reuse of every day waste materials such as empty beverage containers are collected and sorted into common types so that the raw materials from which the items are made can be reprocessed into new products. ii, Biological reprocessing: waste materials that are organic in nature, can be recycled using biological composting and digestion processes to decompose the organic matter that can then be recycled as mulch or compost for agricultural or landscaping method. iii, Energy recovery: the energy content of waste products can be harnessed directly by using them as a direct combustion fuel, or indirectly by processing them into another type of fuel. 3. Avoidance and reeducation methods: is the prevention of waste material being created, also known as waste reduction. Methods of avoidance include reuse of second-hand products, repairing broken items instead of buying new, designing products

to be refillable (Ibid). Waste avoidance and utilization can be seen as part of a broader hierarchy of approaches to achieving sustainable development. At the highest level are approaches that seek to satisfy human needs and requirements in ways that do not waste resources or generate harmful by 26 products or residuals. These approaches include changing consumer behavior and reexamining the range and character of the products and services produced. At a slightly lower level are efforts to redesign products and services and to raise consumers' awareness about the impacts of their decisions (World Bank, 1998: 30).

### 2. 3. Community Participation in Solid Waste Management

Like any other intervention there is a need for community participation in solid waste management. The disposal of garbage is a worldwide problem and a nightmare for many authorities. Some municipalities fall behind in collecting garbage, which then piles up in the streets. As good citizens, Christians are among the first to respond and comply with Caesar's laws without complaining (Watchtower 2008: 11). Keeping any solid waste management systems running, at a minimum participation of the community is required in putting the garbage at the street in a proper way at the right time (Subash, n. d). It is written by William apart from removal there is no question that society must prepare for extensive recovery and reuse of wastes if waste generation is to be substantially reduced (qtd. in Biruck, 1996: 37). Consumers in some of the wealthier countries are moving toward a greater awareness about the need for waste reduction, as shown by participation in recycling schemes and some demand for environmentally friendly products (World Bank 1998: 30).

27 In addition to individual responsibility, people are believed to be



collectively responsible in more or less organized activities, like meetings, clean-up campaigns, and awarenessraising activities (Subash, n. d.). William has also stated that society will have to considered balances and choices within the environment as a whole and take full advantage of natural process to destroy harmlessly those residual wastes which can't be recycled (qtd. in Biruck, 1996: 37). Watchtower (2008: 11), the family may decide to clean the house regularly each week and to schedule a thorough cleaning once or twice a year. And how about outside the house? True Christians are willing to go the extra mile to make a contribution in this regard. They are interested in a clean environment and take the initiative in cleaning up, ...they understand that cleanliness is a reflection of good training and responsible behavior. It starts with each individual and each family. Simple application of sanitation and cleanliness around the house will lead to better health as well as improve the overall appearance of the neighborhood. Subash (n. d) said that community participation may involve making material, financial or physical contributions to activities of solid waste management, for instance working as cart operator or sweeper, and paying fees for waste collection. The success of community participation in solid waste management depends on other actors involve, such as the municipality, community-based organizations (CBOs), micro enterprises and local leaders. Community participation of any kind is not also an end by itself; if its' sustainability is not assured by other means. Subash has considered the following factors to favor the sustainability of community participation and hence of services, like waste collection and separation: ¼ Communication strategies are said to be essential to generate a broad-based understanding of solid waste

issues among community members on the one hand and responsiveness of the stakeholders to the demands of the community on the other. ¶ Representative local leaders and Community-based organizations (CBOs) are believed to stimulate community participation and ensure that community needs are taken into account. ¶ Women are also believed to play a determining role in waste management and they form important channels of communication. ¶ Community initiatives and CBOs are said to be less durable if they are not, at some point, recognized and supported by the local authority. ¶ Cooperation between the CBO and the local authority to maintain and operate the service system according to formal agreements with stakeholders. ¶ Follow-up support should also be given after project implementation to reinforce awareness and new practices and assist when required with operation and management of new organization. Regarding effective and sustainable waste management, each and everyone has to involve in cleaning, collecting and appropriate disposing of waste. Attitude of the community, such just clean their closed environment and put out of their mind about their neighborhood as to change. And, the involvement of each and everyone, in cleaning their around one self's home as well as keeping clean their surround in continuous manner that improve the problem of waste management. 29 Environmental Development Action in Third World Enda-Ethiopia believes that individual efforts have a sustainable impact in so far they combine with the actions of others. And it says that, the participation of all those involved at different levels in the development process is sought (www. geocities. com). 2. 4. Empirical Literature 2. 4. 1. Practices of community participation in solid waste management Community

participation has been vital instrument in response to environmental pollution caused by inadequate solid waste management in many developing countries. The major reasons of raising the issues of community participation in line with solid waste management in different countries are to improve their inappropriate solid waste management through creating awareness, initiatives & mobilizing the community. In the city of Luanda- Angola, a pilot initiative was implemented to develop and test a model for the sustainable management of solid waste in the musseques that are not served by environmental sanitation programmes. The project was conducted with assistance from Canadian and Swiss organizations. Active participation of the community was a key component. Another pilot project was conducted by Subash (n. d) on community participation in Bangalore- India on waste management the fourteen wards of Bangalore, Nagapura, was chosen. The ward is mostly residential with some major commercial centers, which are described to be the major waste generators. Besides other things community participation was the most crucial component of the project to clean the ward. Community members have participated in different ways, such as paying collection fees, offering waste at the 30 appropriate time and separating recyclable materials. Furthermore, community members have involved in awareness-raising activities, participate in meetings to influence the process of the project or be part of committees that manage waste services. It is proposed in the paper that appropriate time frame, achievable objectives and adaptive planning can effect community participation in a positive way (A. Shabash n. d). Since community participation is unquestionable for improving the problem of solid waste management, city

administration is indispensable for a consistent path of environmental protection by increasing necessary ongoing awareness of the environmental problem due to inadequacy of solid waste management at stake in the community, and mobilizing them to bring valuable community participation. Moser put important implications for the way in which community participation as a means and end, " participation is interpreted as a means, it generally becomes a form of mobilizations to get things done, as an end the objective is not a fixed quantifiable development goal but a process whose outcome is an increasingly meaningful participation in the development process" (qtd. in Abbott, 1996: 36). In short community participation is both a means and an end by itself. 31 Chapter Three 3. Community Participation in Solid Waste Management in Merkato and Atikilt Tera Areas The study was conducted in two areas namely Merkato, which is located in Addis Ketema sub city; and Atikilt Tera which is located in Arada sub city. This chapter deals with the presentation of facts; and the interpretation and implications of each result. The presentation begins with brief description of the background information of the respondents and the presentation of data in photograph, tabular and graph form using frequency counts and percentages. 3. 1. Socio-demographic background of respondents The background information of the major study subjects' (interviewed vendors and buyers) is briefly discussed as follows. Both Vendors and buyers respondents from the two study area were asked to identify their background information through semi structured interview. In this respect the collected data were examined to describe the characteristics of the respondents' in terms of sex, age and educational background. A total

of 50 respondents were contacted through semi-structured interview, from Merkato area (9 male and 9 female venders) and (4 male and 3 female buyers) from Atikilt Tera area (11 male and 7 female ven