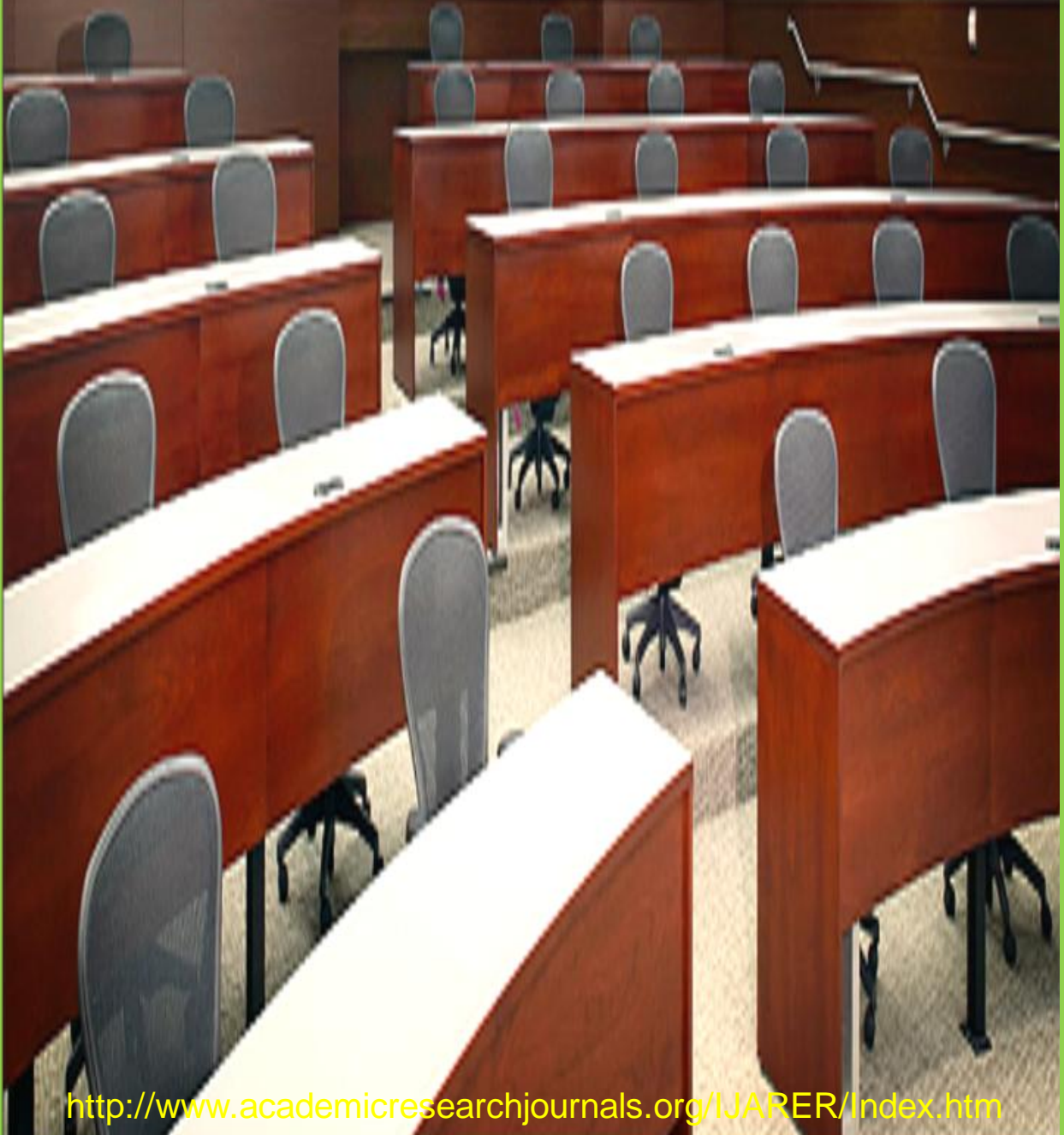


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*Full Length Research*

# **The Situation of Street Children in Urban Centers of Ethiopia and the Role of NGO in Addressing their Socio-Economic Problems: The Case of Hawassa City.**

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**This paper emphasized on the overall situation of street children living in Hawassa City and assessed the role of NGOs in addressing their socio economic problems. To accomplish its objective both quantitative and qualitative approaches were used. To identify respondent's, non-random sampling technique which includes both snowball and purposive sampling was used. [Interview schedule and in-depth interview with street children is the main instrument of data collection. Key informants interview with concerned government officials and NGO staff and focus group discussions with street children were also utilized to confirm the data obtained through the in-depth interview and interview schedule.] The study has revealed that the majority of street children in the study area were males and different causal factors have contributed for their streetism but, poverty was found to be one of major factors to push children to move to the street. The study further depicted that street children in Hawassa were vulnerable to wide range of violations of their rights. They were verbally, physically and sexually abused. Their situation became worse by the negative attitude of the general public who were insensitive to their problems. So that many children are still on the street of Hawassa and looking for help.**

**Key Words:** Hawassa, Street, Street Children

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## **INTRODUCTION**

The problem of children living on the street is a global phenomenon. It has created countless problems to millions of children in all parts of the world (UNICEF, 2007). They live a transitory life style and lack basic necessities like food, health care, and a safe place to stay. In the world, street children exist on the margins of society, living in inhumane conditions, suffering from hunger, harassment and physical abuse, deprived of basic services such as education and health care

(Vanessa, 2007).

On the street they frequently survive by begging, stealing or working in the informal sectors in low paying jobs (Zena and Aneth, 2010). Consequently they faced different challenges while striving for their survival. The most complex challenge faced by children in the streets was dealing with the perceptions of those around them and the treatment they consequently afforded (OHCHR, 2011).

The society also threatens them as outsiders rather than as children to be nurtured and protected. Thus, they are both spatially and socially oppressed, through multiple forms of social control, marginalization, and powerlessness. As a result everyday life for a street child can be like living in an enemy territory (Hutchison, 2010). Most importantly they suffer from physical, sexual and psychological abuses and become victims of child trafficking for the purpose of labor and sexual exploitation. Their vulnerability to this wide range of problems and hazards represents a major feature of their everyday life. This is also a determining factor in developing their abilities to be able to cope with street life (UNICEF, 2007).

Although the phenomenon of street children is a global one, Latin American, Asian, and African countries are specially affected by the problem more than any other part of the world. A report issued by the Royal Tropical Institute (KIT 2002), a research organization in the Netherlands, states that out of the estimated 100 million children living and working on the streets of the cities of the world, the majority are in developing countries: 40 million in Latin America, 25-30 million in Asia, and 10 million in Africa (FSCE, 2003).

Since Ethiopia is a developing country, its urban areas are challenged by the growing intensity of street children (MoLSA, 1993). But, there is no comprehensive statistical information on street children in Ethiopia. According to some estimate, street children in Ethiopia have become a countrywide epidemic, with over 100,000 of them living and/or working on the streets of Ethiopia's cities and out of them about 2,555 are found in the streets of Hawassa (FSCE, 2003).

In (2007) MoLSA in a study supported by UNICEF has also estimated the overall numbers of children on the streets of Ethiopian cities are around 150,000 and about 60,000 of them living in the capital city (UNICEF, 2012). So in order to find a solution for the problem it is crucial to identify the factors that push and pull children into the streets. It is becoming clear that there is no single cause for children to become street children, rather, it is a combination of economic, social, political and cultural factors which force children into the streets (Vanessa, 2007). Kevin Lalor (1999) stated that children come to street life due to Economic reasons/poverty, family reasons, orphaned, join friends/peer pressure, pressurized by parents. Migration is also another factor which can essentially force a child into the street (Vanessa, 2007). In the city, much has not been done to study the situation of street children. From the available limited literature on street children in the study area, few have attempted to study the situation of street children such as FSCE (2003), Solomon Sorsa, Tesfaye Kidanemariam, Lopiso Erosie (1999) on health problem of women and street children. Research output and information on such topics and the role of NGO in

addressing the problem of street children is barely available in the study area. Thus, this study fill the information gap and therefore, attempted to show the existing realities of children living in the streets of Hawassa and the role of NGOs in mitigating their socio-economic problems.

## OBJECTIVES OF THE STUDY

The general objective of the paper is to assess the overall situation of street children in Hawassa city. In line with this, the specific objectives of the study are intended to:

- Identify the push and pull factors that expose children to street life in the city.
- Find out the major challenges and abuse street children faced in the study area.
- Identify the type of activities that street children perform for their survival.
- Assess the role of non governmental institutions in addressing the socio economic problem of street children.

## Research Questions

To attain the above stated objectives, the study attempted to answer the following research questions:

- ✓ What are the major factors that expose children to street life?
- ✓ What are the major challenges and abuse which street children encounter while living or working on the street?
- ✓ What kinds of activities street children perform for their survival?
- ✓ What are the contributions of NGOs in mitigating the socio economic problem of street children?

## REVIEW OF RELATED LITERATURE

### Street Life: Choice or Compulsion?

#### The Push Factors

**Poverty:** is one of the push factors for an increasing number of children on the streets. In some instances it is parents or guardians send the children to work on the streets to support their families. Others are forced on the streets to find food and shelter which is not forthcoming from their families (Kopoka, 2000). A UNICEF report also states that children who work on the streets often come from slums and squatter



settlements, where poverty and precarious family situations are common, where schools are overcrowded and poor, and where safe places to play simply do not exist (UNICEF, 1997).

Few researches done in Addis Ababa and some other major cities also indicate that family poverty is the major cause for children to join the street (FSCE, 2003). The appearance of street children in Addis Ababa (and to a lesser extent in the other towns of Ethiopia), is integrally tied to the phenomenon of urban poverty. Therefore reduced income forced street children to work on the streets to earn money for themselves. Some children need to work to support their families. Some children may have been denied a chance to go to school or have dropped out of school and have nothing to do. They can earn money by begging, carrying or bearing, car washing, drug trafficking, juggling, performing music, running errands, scavenging, sex work, and shoe shining or vending (WHO, 2000).

**Family disintegration:** The family institution is going through a lot of upheavals. Fewer and fewer children have stable and caring family environments. Many families have broken up with children left to fend for themselves. Many families are also increasingly characterized by absentee parents, lack of communication between parents and children, alcoholism and domestic violence. Many children run away to the streets to avoid violence and abuse in the family (Kopoka, 2000). Thus family disintegration is a significant push factor that force children to the street life. In most cases, street children come from broken families due to divorce, separation or imprisonment of the parents. A lack of economic and emotional support, coupled with a loss of communication between parents and children, often forces them to escape or leave home (Vanessa Asensio, 2007).

**Violence at home:** Many children feels that living on the streets is better than coping with problems in their homes. These problems can include conflicts with parents, physical or sexual abuse or neglects (e.g. an abandoned disabled child). Some children are forced to leave home by their families because; the family does not approved child's behavior or its consequences, e.g. pregnancy, homo sexuality or substance use (WHO, 2000).

UN report on violence against children also indicates that children who have been sexually abused, or extremely neglected, or who have experienced violence at home, may run away or drift into a street life which exposes them to the risk of sexual abuse or exploitation (UN, 2006).

### The Pull Factors

In addition to the above mentioned push factors,

perceived freedom and a perceived better life on the street are some of the pull factors that exposes children to street life. Study conducted in Nepal in (2013) on street children indicates that urbanization, peer influence, hope for employment, and false information about city life etc. are some of pull factors that attract children to street life. Moreover charitable donations given by nongovernmental organizations (NGOs) and private individuals also act as an additional pull factor to attract children to come to and stay on the streets.

In the same vein study conducted in (2011) by Mekonnen Mangesha on policy frame work for street children in Addis Ababa revealed that the service provided to street children by different NGOs attract children to street life. This means some organizations are simply engaged in providing basic services for the children while they are living on the street. Such services make life easier for the children on the street and force them to remain on the street or more seriously it might serve as a pull factor for attracting other children to street life. Beside one can identify spatial freedom, financial independence, city glamour and street-based friendships or gangs as other pull factors. These can develop over time into strong street connections that, combined with social stigma and prejudices, make it difficult for children to find desirable options off the street (OHCHR, 2011).

### Challenges and Abuse Which Street Children Encounter

Street children are the casualties of economic growth, war, poverty, loss of traditional values, domestic violence, physical and mental abuse and constitute a marginalized group in most societies. They do not have what society considers appropriate relationships with major institutions of childhood such as family, education and health. The continuous exposure to harsh environments and the nature of their lifestyle make them vulnerable to substance use and this threatens their mental, physical, social and spiritual wellbeing. In many regions, most of these children use alcohol and other psychoactive substances. In addition, these children are confronted with discrimination and view health and social services with suspicion (Ojelabi and Oyewole, 2012).

They also faced different kinds of violence on the street but, the most obvious forms of violence associated with street children – extra-judicial killing, tortures, beating by police, security forces and private security firms employed by local businesses to 'keep the streets clean' are an ongoing problem of the utmost urgency. CSC works to protect street children through advocacy with governments via an 'urgent action' procedure (Marie, 2001).

The working conditions of these children also described as dirty and dangerous. They do all sorts of manual work and do not find any profession that could ultimately lead them to skilled profession. Children on the streets suffer both physically and psychologically. Their exposure to unhealthy living and working conditions, vulnerability to physical and sexual abuse, drugs and indulgence in criminal activities are some of the physical threats. They have exposure to potentially or actually hazardous working environment, a source of cheap labour leading to exploitation, vulnerable to worst forms of child labour involving violence and sexual abuse & exploitation and they lack protection mechanisms against exploitation and abuse (Amir. and Rana, 2002).

### **Coping and Survival Strategies of Street Children**

In this sub-topic, the researcher will be looking at some of the survival strategies that street children employ in their lives to earn an income and to deal with challenges and adversities. To cope with their day-to-day challenges, street children resort to several coping strategies to avert their adversities. These survival strategies include ways they use to make money, acquire food, and other basic needs. The lifestyle inherent to living on the streets exposes children to a range of harmful situations and hence their survival is often dependent upon engaging in risks to their health and general well-being” while on the streets, they have to battle fiercely to keep alive. Some of them survive by selling whatever they can find. Some even sell themselves, some beg, some steal and so on (Sherman et al, 2005).

### **Begging for Survival**

Begging is one of the ways which street children used to meet their daily needs. According to (Abebe , 1999), Children engage in begging either full-time or part-time as a way of livelihood or supplementing their income from begging with that from other activities.

The main justification for many boys and girls to be involved in begging is horrible household poverty. In such contexts, begging ensures their basic needs are meeting and that it also enhances their capacity to be significant contributors in terms of family income. Thus, by begging and supporting their households, child beggars fulfill a socially meaningful and valuable role in everyday life (Tatek, 2009).

Children mostly beg for money, but they may be given help in kind, including clothing and items of stationary. People also give the children equipment like shoe shining box to work with in order to encourage them take up a small-scale job rather than beg. In difficult circumstances

and when they are hungry the children may rely on leftovers of food which they collect from hotels, restaurants and cafeterias (Tatek, 2009). When they beg children uses different approaches. One of the primary methods for begging is to be brave and persistent. Being persistent is not only the key to success but is also an indication that the children do not take ‘No’ for an answer (Girmachew, 2006). If people do not give them coin, they ask them politely over and over again. If they still do not respond, they tell them why they beg, and about their poverty: ‘Brother, please buy me bread?’; ‘Dear sister, give me some coins?’ ‘My mother, give me one birr, so that they can have money to buy lunch’ and the like ... That is the way they persuade people to give money to them, but if they find nothing, they may change the site of begging, and perhaps go to the other side of the city (Girmachew, 2006).

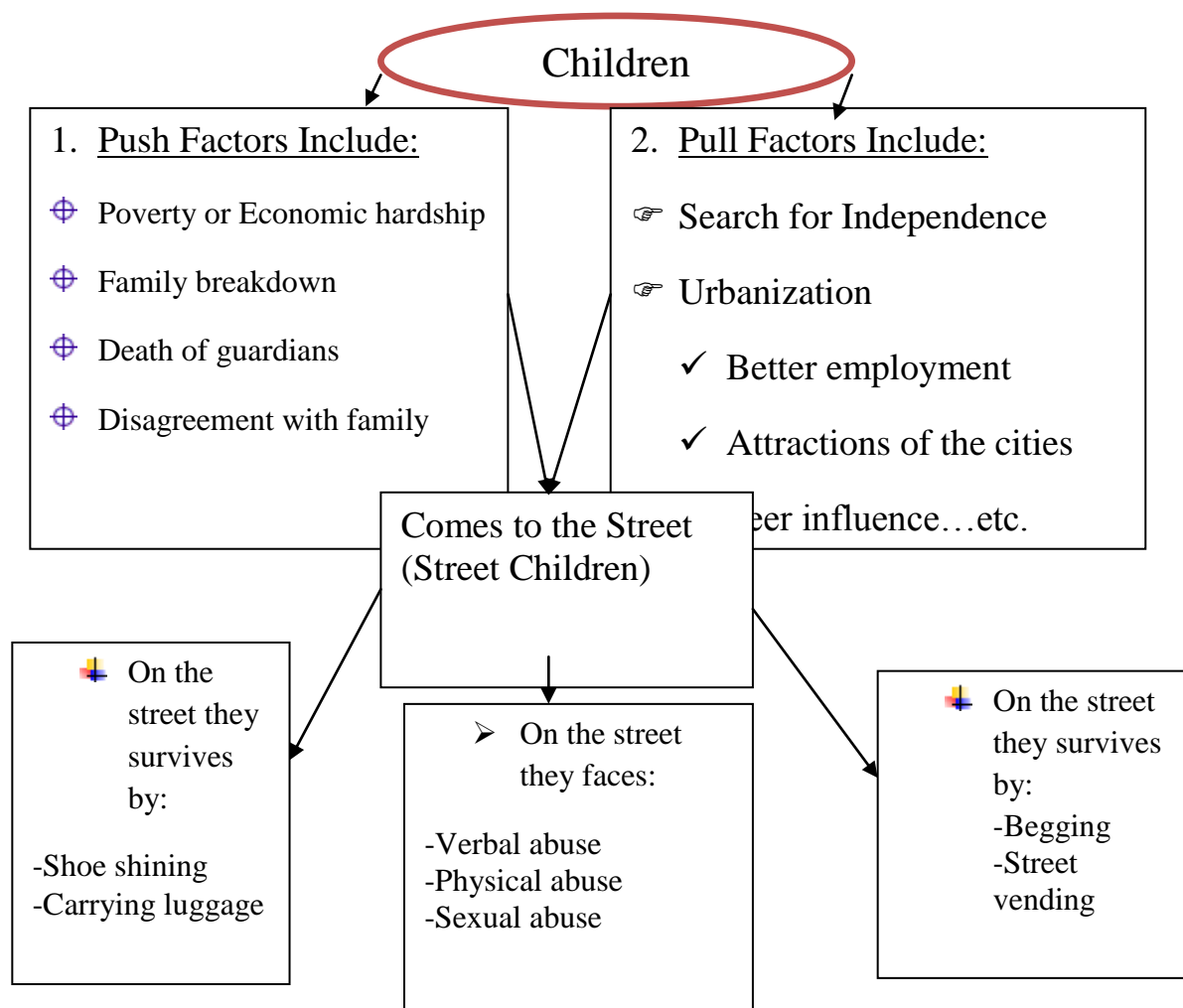
### **Shoe Shining**

On every street corner of the city there are some children looking for someone’s shoes to shine. Thus shoe shining is the most popular job for the street children. Many boys have a fixed place and others are mobile in the city. Street children are supposed to pay taxes in order to get a fixed work space in major streets of the city. Mobile shoe shiners are move from place to place in order to get customers. They attract fewer customers because many people do not trust these boys as they most often are perceived and accused for using less quality creams in the name of good ones. Lack of fixed work space exacerbates this accusation (Girmachew, 2006).

### **Non-governmental Organizations and Children**

Non-governmental organizations have no long history of service to the people of Ethiopia. Their involvement in the economic and social life of the country began in early 20th century. Their forceful involvement in the development efforts of the country however, starts with the drought induced famine of 1973/74. Initially their operations focused on relief that saved millions of lives. Since then they have become a permanent feature in the country’s development process.

The reoccurrence of the 1984/85 drought gave a further boost to the growth of NGO operations (CRDA, 2004). The number of NGOs continued to grow after the overthrow of the military regime (Derg) in 1991. However, their activities were principally limited to relief and rehabilitation before they became more development oriented (CRDA, 2006). As the NGOs were increasingly pulled into the development front, their role and areas of intervention changed. The growth of NGOs in Ethiopia has been robust over the last two to



Source: Girmachew A. (2006)

**Fig 1: Conceptual Frame Work**

three decades. The number of NGOs, especially indigenous NGOs has been rising. Their capacity to play a discernible role in the country's development agenda has been steadily growing (CRDA, 2004).

Institutional care of children in Ethiopia is introduced by missionaries and increased significantly as a response to needs of unaccompanied children at emergency feeding centers during the droughts and famines in 1984-85 (John Williamson, 2000).

Children are not always able to speak for themselves or to assess their own needs. NGOs have a responsibility to ensure that the short-term and long term interests of children are effectively addressed in any relief and development programme (Eade et al, 1995). Non-governmental organizations are playing very important role in promoting the welfare of disadvantaged children by planning, financing, managing and providing advices and counseling services for various projects set up to help poor children in general and street children in

particular (Dessale, 1998). In Ethiopia, children welfare responsibilities and overseeing the implementation of various programmes targeted at mitigating the problem of street children in especially difficult circumstances has been given to MoLSA. Since the economy of Ethiopia is not strong enough to generate resources for the needed social investment, assistance from both local and international NGOs will be essential to alleviate the various problems connected with destitute children (Hope Enterprise, 1997).

According to a report on the implementation of CRC in Ethiopia (2005), more than fourteen NGOs are involved in addressing the problem of street children throughout the country. A local NGO has been providing transit shelter to protect street girls from being exposed to sexual abuses. The programme mainly focuses on provision of temporary shelter, washing facilities, counseling, education and family reunification (Country Report, 2005). Figure 1

## METHODS AND MATERIALS

In order to achieve its objectives, the research employed both qualitative and quantitative research methodologies. The data incorporated both primary and secondary sources of information from different sources. The primary data were collected via interview schedule, in-depth interviews and focus group discussion. Parallel, the researcher gathered primary data through key informant interview from different concerned bodies. These were officials from Hawassa Women, Children and Youth Affairs, Social and Labour Affairs Office (eight participants, four participants from each office). Two NGOs staffs from "Center of Concern" an NGO working on street children in the city were also interviewed. The selection of sample for this study was based on non random samplings which are snowball and purposive sampling techniques because it was not easy to find an accurate number of street children from which the researcher could select a proper scientific sample by random method because of lack of current statistical data in the study area. The snowball sampling technique are used to identify street children and helped to begin with those who were familiar and volunteer to cooperate with the researcher previously to create relation, and then use them to find other respondents who they know. The main objective of using snowball sampling technique for street children was only to identify them. After identification, the informants were selected through purposive sampling based on their age. Those street children whose age is below 9 were excluded because of their immaturity to understand and express the phenomenon under investigation. To this end 170 street children out of which 31 females and 139 males- children were selected through purposive sampling technique based on their age. Twelve and four children were involved on focus group discussion and in-depth interview respectively. Self administered questionnaire or interview schedule is distributed to 170 street children. The data collected from interview schedule method was analyzed and presented descriptively through the statistical analysis which is limited to descriptive statistics, i.e. description of frequencies and percentages. Whereas the data gathered through in-depth interview, key informants interview, focus group discussions and document analysis were analyzed by making use of descriptions, interpretations and summarization of the data.

## RESULTS

This section is devoted to present the data obtained from 170 street children and interviews with officials from concerned government office and one NGO working on street children in Hawassa City. It was concerned with discussion and analysis of the data obtained through

qualitative and quantitative method based on the objectives and research questions set at the beginning of the chapter. The discussion begins with background information on age structure of respondents and then focuses on the causes of streetism as well as exploitation and abuse commonly experienced by street children. Finally, it deals with survival strategies of street children and the roles of NGO in addressing the socio economic problems of street children.

### Demographic Analysis

The age of respondents ranges from 9 to 17 years with a higher proportion of sample children in the age group of 12-14: 85(50%) followed by 9-11 age group 44(25.9%) and 15-17 age group were 41(24.1%). The data on the gender composition of sample children reveals that the overwhelming majorities who have participated in the study are male children living on the street (81.7%) while female constituted a small proportion of the total (18.3 %). Table 1

The result of interview with officials of Bureau of Labour and Social Affairs and Office of Women, Children and Youth Office of Hawassa City also shows that, most of the time girls do not use psychoactive substances like cigarette and chat. Thus, they do not made conflict with their family members like boys. So that they were not exposed to street life like boys and even those girls who are exposed to street life were involved in prostitution than staying on the street. As a result street girls are less visible than boys in the city.

Kevin Lalor (1999) explains the reason as to why numbers of female street children are small in comparison to male street children as follows: The true incidence of working girls may be hidden by the nature of their work, which tends to be less visible than the work of street boys. For example, females may work as maids in bars, back street hotels and private houses. Street boys, on the other hand, typically engaged in more visible activities such as car washing, shoe shining and peddling.

The findings of this study show that, there are a higher proportion of street boys than street girls in the study area.

### Contributing Factors for Children's Leaving Home

Different causal factors contributed for child streetism in this study. Some studies that were carried out on street children in the country shows a multiplicity of factors that lead to the emergence and development of street life. Among them are: poverty, unemployment, family breakdown, parental death, child abuse and neglect, dropping out of school, child labor, the influence of peers,

**Table 1.** Children Living on the Street by Age  
Street children were asked about their age and the result shows that majority of these children are male.

Age group	Male	Percentage	Female	Percentage	Total	Percentage
9-11	41	24.1%	3	1.8%	44	25.9%
12-14	68	40%	17	10%	85	50%
15-17	30	17.6%	11	6.5%	41	24.1%
Total	139	81.7%	31	18.3%	170	100%

**Source:** Own Survey 2014

**Table 2:** Factors that Expose Children Street Life

Main Reasons for Leaving Home	Frequency	Percentage
Family Poverty	51	30%
Disagreement with family	34	20%
Death of parents	31	18.2%
Peer pressure	31	18.2%
Family Breakdown	23	13.5%
Attracted by City Life	0	0%
Total	170	100%

**Source:** Own Survey 2014

migration, and many other reasons related to the social environment. The Table 2 illustrates the reason as to why children move to street life.

The result of this study from Table 2: reveals that numbers of factors have contributed to children's joining the street life. The most common factor was family poverty 51(30%), followed by disagreement with biological parents 34(20%), death of parents 31(18.2%), peer pressure 31(18.2%) and family breakdown 23(13.5%). So family poverty takes the lead for children's decision to leave home and followed by conflict with family. The story taken from the following two children illustrates this point very well.

*S is a 15 years old girl from Tulla. She came to Hawassa looking for a job to support herself because, her family was poor and they couldn't fulfill her foods, clothe and school requirements. Contrary to her expectation, she didn't find a job easily and she was forced to beg on the street of Hawassa even though her dream is to take a job.*

Another boy G left home and came to the street because of conflict with his biological parents. His idea was stated as follows:

*G made a decision to go to the street after being severely beaten by his father. Four days later his parents came to look for him and they took him home but a week later he was beaten for waking up late and he ran away again to come to the street. His mother came to look for him but he*

*went to hide himself as soon as he heard that she was coming.*

The above two case studies are good examples of how poverty and conflict with parents force children to join the street life. From Table 2: we observed that poverty was the leading factor that exposes children to street life. Finding of focus group discussion has also confirmed that their involvement to street life were to support the economy of their families as well as to support them.

Furthermore, according to interview with Officials from Women, Children and Youth office of Hawassa City, poverty takes the prime role for child streetism in the city. Additionally large family size and lack of parenting skills were a significant push factors that expose children to street life. More over peer influence and the growth of the city were significant pull factors.

### **Activities which Performed by Street Children for their Survival**

Their survival or livelihood strategies involves drawing all sorts of skills, knowledge, labor resources and social networks. Street children center on income-earning activities mainly in the informal sector either as wage employees or self employment or other illegal means such as begging and carrying luggage (Girmachew, 2006).

The ongoing discussion shows that children involved in all portfolios of activities in order to diversify their source of income for their survival. To cope with their day-to-day

**Table 3: Livelihood Strategies of Street Children**

Livelihood Strategies	Frequency	Percentage
Carrying luggages	72	42.4%
Begging	65	38.2%
Shoe shining	20	11.8%
Street vending	13	7.6%
Total	170	100%

**Source:** Own Survey 2014

**Table 4: Children Living on the Street and Sources of their Daily Meals**

Source of Daily Meal	Frequency	Percentage
Left over buy from cafes and restaurants	83	48.8%
Left over free from cafes and restaurants	39	22.9%
Buying cheap food	48	28.2%
Total	170	100%

**Source:** Own Survey 2014

challenges, street children resort to several coping strategies to avert their adversities and to acquire income for survival. These survival strategies include ways they use to make money, acquire food, and other basics needs.

The result of this study shows that significant size of respondents were involved in carrying luggages 72(42.4%), begging 65(38.2%), shoe shining 20(11.8%) and the remaining 13(7.6%) were involved in street vending (selling small items). Table 3

Focus group participants indicates that most of the time they are involved in carrying some ones luggage if available and if it is not available they beg money from a person who have good dressing. From focus group discussion and in-depth interview the researcher have been found that most street children were engaged in two or more economic activities in order to ensure high income as much as possible and there is no fixed time frame of working hours and time for street children. If they are lucky, they can work for longer hours in a day. At other times, they may be engaged for only an hour and there might be sometimes no work at all for them to do the whole day.

Their life style does not allow them to follow strict and structured hours of work. This is a factor that determines the number of hours they work every day. Such life style, in general, is reflected not only on the number of hours they work or engage in begging but also in the number of hours they have for entertainment, sleep, play or meal. For instance, a child who has stayed late at night may not be able to wake up in the morning to look for the work of the day. This can affect the number of hours he/she would be able to stay in the work that is available to him/her. A story obtained from a 17-year- old boy illustrates this point well.

*We sometimes stay very late in the evening while we chew chat. We sit and chat without even noticing the number of hours we sat. The next day we sleep the whole morning and misses some paying opportunities such as washing cars, carrying luggages and etc.*

#### **Access to Food**

Daily bread is the major problem for most of the population of the developing world. The problems get worse when viewed from the point of view of vulnerable groups like street children (FSCE, 2003). Thus, the following table illustrates sources food for street children.

An attempt has been made to examine as to how and where street children get their daily meals. According to the result indicated in Table 4: majority of respondents 83(48.8%) Buy leftover food from cafes, 48(28.2%) Buy cheap food from small cafes and the remaining 39(22.9%) Get leftovers free food from cafes and restaurants.

A further analysis of this finding shows that over a half of them 124(71.7%) of the children depends on leftovers, whether it is free of charge or bought.

FGD result also confirms that leftover food is more accessible and cost effective even when it is bought from cafes or restaurants. Participant of FGD have also felt that leftover food is far better than that of food bought from small cafes because leftover food contains ingredient like meat, vegetables, pasta, rice, etc. However, the freshness and cleanliness of leftovers worry the children involved in the FGD.

#### **Abuse of Street Children**

Living on the street, with no supervision, protection or

**Table 5:** Types of Abuse Street Children Face

Types of Abuse	Frequency	Percentage
Verbal and Physical Abuse	71	41.7%
Physical abuse	62	36.5%
Verbal abuse	27	15.9%
Sexual abuse	10	5.9%
Total	170	100%

**Source:** Own Survey 2014

guidance often makes street children vulnerable to a wide range of problems or hazards. Accordingly, street children have been asked to unveil the type of abuses they face on the street of Hawassa. Nearly forty two percent 71(41.7%) of informants experienced both verbal and physical abuse; about 62(36.5%) reported physical abuse and nearly sixteen percent 27(15.9%) states a verbal abuse. The remaining 10(5.9%) were sexually abused. Table 5

Interview result from department of Women, Children and Youth Office also indicates that verbal and physical abuses are very common among street children of the City. Moreover they point out that there is some sort of homosexuality among street children. People give money in return for sexual intercourse with male street children. Therefore, the researcher is convinced that homosexuality is practiced among them. And hence boys are also sexually abused. They also argue that some of the street children of the City had involved in crime like theft. This has been proved by incidences of police arrests. But, according to the officials from Bureau of Labor and Social Affairs in Hawassa City sometimes there is police brutality on the children without any sufficient cause. If a problem arises among them, then they are considered as trouble makers by vast majority of the society.

Most of the street children work and live alone on street without parents or legal guardians. And these children have reported that they suffer in their sleeping places much due to cold, verbal abuse and physical abuse by gang groups. FGD results also reveals that being beaten by older street boys is very common. All FGD participants have reported that they have been injured from stabbing and slashing from blades on regular basis. Such injuries are most often inflicted during fights with other street boys.

The following case deals with 13 years old boy. K is 13 years old boy from Gorche. He explains the type of abuse he suffers on the street as follows:

*Life on the street was very hard. Many times I used to get beaten by police for no reason. Sometimes also older street boys beat us for no reasons and snatch our clothes and money. They also frighten us without any reason and steal what we have and generally for me life in*

*the street is very dangerous.*

From the above explanation it was so easy to understand how much street children suffered from both physical, verbal abuse and exploitation. Data from FGD participant further reveals that the most common problems among the street children included harassment by police and hunger. The problem of harassment may consequently give rise to other psycho-social problems such as aggression, fear of society, suspicion, unruliness and theft. Such problems prevent street children from leading peaceful lives (Philista et al., 1991). The problem of hunger also has its consequences and implications. Probably to meet the need for food and to prevent hunger these children are forced to take part in deviant acts. This may explain as to why some of them end up being juvenile delinquents. Further, the problem of hunger may also be associated with many other problems like poor health condition. In general the finding of this study indicates that street children are unprotected working children who are highly vulnerable to exploitation by the work itself and by others. Their lives on the streets leave them with few opportunities to access basic needs like food, shelter, education and basic health services.

### **NGOs Role in Meeting the Needs of Street Children**

The growing role and importance of NGOs in development are recognized and supported by the political bodies though they view and justify their importance in different perspectives. Broadly, there is consensus and pragmatic argument that NGOs are contributing to the social development and improving the condition of the life of their target groups (Girma, 2005). Non-governmental organizations are also playing a very important role in promoting the welfare of disadvantaged children by planning, financing, managing and providing advice and counseling services for various projects set up to help poor children in general and street children in particular (Dessale, 1998). Hence, the following table shows the distribution of children who have received and not received aid from the NGO.

Street children have been asked as to whether they received any support or not from some NGOs. Out of the

**Table 6:** Children Living on the Street Supported by the NGO

Support from NGO	Frequency	Percentage
Yes	48	28.2%
No	122	71.8%
Total	170	100%

**Source:** Own Survey 2014

total sampled street children, about 48(28.2%) have responded that, they were getting support from NGOs. However, not all of the children living on the street had established contact with the existing service providers NGOs for necessary support. Even majority of street children have no contact with any kinds of NGOs working on street children. Thus, nearly seventy two percents respondents 122(71.8%) have reported that they were not receiving any support from NGOs. Table 6

However, during FGD with street children, the participants have reported that they are getting some kinds of support from the NGO. The kind of support they received from the organizations varies. The most common support stated by FGD participant are cash money, education/training, advice; health service; shower & toilet services; soap and job opportunities. In line with the above idea interview results with the NGO staff (Center of Concern) also shows that their organization offers some support like, education, trainings on life skill and advice against the negative side of use of drug, health services, recreation & sport, vocational trainings and others. They also facilitate things for the children to involve on income generating activities like organizing them under small scale enterprises, street vending (selling small items) and etc. According to them in 2013 out of 660 street children about 65 children have got vocational trainings and 50 children were involved in small business or income generating activities. Above all, the rehabilitation program and creating favorable conditions for the children to reunite with their families were also among the services provided for the children. However, food support was not provided to the children believing that if children are provided food they will not leave the street, rather they will prefer to stay on the street. Furthermore, the aim of the organization is to help the children to have a better life and get relief from street life. Due to this fact food support was not provided for the children. Based on the interview result from NGO staff of "Center of Concern" in Hawassa City they have been followed curative approach to deal with destitute and vulnerable children: which focuses on face-to-face work with those children already on the streets. That means they emphasized on rehabilitating projects for street children: either by reunifying them with their families or providing training of different skills and helping them to involve in different income generating activities. That means the NGOs focuses only on the short term needs of the children than providing long term solutions

for their problem. From this the researcher conclude that even though, preventive approach is advisable to address the long term problems of the street children, the NGO only emphasizes on curative approach which focuses only on short term needs of the children.

## DISCUSSIONS

The findings of this study show that boys were more visible to street life than girls. The data on the gender composition of sample children reveals that the overwhelming majorities who have participated in the study are male children living on the street 139(81.7%) while female constituted a small proportion of the total 31(18.3 %). The result of interview with officials of Bureau of Labour and Social affairs and Office of Women, Children and Youth Office of Hawassa city also shows that, most of the time girls do not use psychoactive substances like cigarette and chat. Thus, they do not make conflict with their family members like boys. So that they are not exposed to street life like boys and even those girls who are exposed to street life are involved in prostitution than staying on the street. As a result street girls were less visible than boys in the city. In explaining this sex breakdown among the street children, Rizzini attributes the small proportion of girls on the street to the fact that families attempt to keep girls at home, where they help with household chores (Rizzini, 1991). Kevin Lalor (1999) also explains the reason as to why number of female street children is small in comparison to male street children as follows: The true incidence of working girls may be hidden by the nature of their work, which tends to be less visible than the work of street boys. For example, females may work as maids in bars, back street hotels and private houses. Street boys, on the other hand, typically engage in more visible activities such as car washing, shoe shining and peddling.

According to the findings of this study the basic factors pushing children onto the street life were family poverty followed by conflict with biological parents. Thus, economic and social factors appeared to be primary in pushing children onto the streets. From the finding of this study one can understand that, an examination of the factors explaining as to why one was on the street are due to circumstances beyond their control which is due to socio-economic problems. Many children live and work



on city streets and still many choose street life as the alternative to poverty or violence at home. It is a harsh choice - with constant threats of hunger, exploitation, violence, abuse and even death. Different literatures also confirm poverty as one of the major causes for child streetism. Poverty forces children to the streets to support themselves and their families. It is poverty that is limiting the family's capacity to meet their children's needs forcing children to go to the street to fend for themselves. It is rural poverty that is forcing rural population migrate to urban centers, including children with a hope of better future. Poverty causes malnutrition resulting in poor health and reduces a family's ability to work thus creating a condition for children to move to the streets' (Kopoka, 2000).

The findings of the study also indicate the most popular and usual sleeping places for street children were roadsides and verandah. And these children have reported that they suffered in their sleeping places a lot due to cold weather, verbal abuses and physical abuse by gang groups. FGD results also reveals that being beaten by older street boys is very common. All FGD participants have reported that they were often injured from stabbing and slashing from blades on regular basis. Such injuries are most often inflicted during fights with other street boys. Data from FGD participant further reveals that the most common problems among the street children included harassment by police and hunger. The problem of harassment may consequently give rise to other psycho-social problems such as aggression, fear of society, suspicion, unruliness and theft. Such problems prevent street children from leading peaceful lives (Philista M. Onyango, et al, 1991). The problem of hunger also has its consequences and implications. Probably to meet the needs for food and to prevent hunger these children are forced to engage in deviant acts. This may explain as to why some of them became juvenile delinquents. Further, the problem of hunger may also be associated with many other problems like poor health condition.

Thus, street children are unprotected working children who are highly vulnerable to exploitation by others. Their lives on the streets leave them with few opportunities to access basic needs like food, shelter, education and basic health services. They face many risks in the streets that can jeopardize their normal growth and development. Being away from their families, they lack the normal protection and supervision most children get from their families. Hence, they are exposed to exploitation by adults and young person's as well as by police and security guards. Studies have reported that street children face a lot of insecurity while in the streets. For example, most street children express lack of food, shelter and clothing and harassment as their major problems. Frequent fights and police arrests have been reported as the usual experiences of street life. All this

aggravates the situation of street children and may deny them the opportunity to grow and become useful members of society (Philista, et al, 1991).

The finding of this study further indicates majority of street children in this study are engaged in menial jobs like, carrying goods, shoeshine and street vending (selling small items). And some of them turn to begging as a survival option when they have no other means of activities to sustain themselves. Their life style does not allow them to follow strict and structured hours of work. The work of street children falls into that of informal economy. It is irregular and low paid (ILO, 2002). Their survival or livelihood strategies involved drawing all sorts of skills, knowledge, labor resources and social networks. Street children center on income- earning activities mainly in the informal sector either as wage employees or self employment or other illegal means such as begging (Girmachew, 2006). In this study though the role of NGO in alleviating the socio economic problems of street children is undeniable, it is not as expected because, it is only one local NGO which works on street children.

## CONCLUSION

The primary aim of this study is to uncover the overall situation of street children in Hawassa City and the role played by the NGO to address their socio-economic problems. To this end the study depicts the push and the pull factors that exposed children to street life and assesses their livelihood strategies. It also attempted to understand the kinds of abuse which street children encountered on the street. The profile of street children in the study indicates that the proportions of boys who have joined street life were more visible than girls and most of the children were migrants from the surrounding rural villages and small towns. The phenomenon is strongly associated with economic and social factors. The majority of these children have come to the street because of poverty and conflict with their guardians. Death of parents, family breakdown, peer pressure, large family size and lack of parenting skills were also another significant factors contributing to street life as found in this study. The results of this study also indicates that, majority of children were exposed to street life because of push factors than pull factors.

Street children faced a wider range of challenges and experienced incalculable exploitations and sufferings while they were working and living on the street. So they are more vulnerable to physical, verbal and sexual abuses. Harassment by police and by older street boys is common problems faced by the street children. The results of this study also show that majority of street children faced physical abuse followed by verbal abuses. They also face a challenge of finding decent secured

sleeping places for sleeping. Most of them sleep outside, exposed to weather elements that might cause health problems.

Street children use several strategies to survive the difficult conditions of the streets. From the findings it is clear that they used different means of acquiring money, foods and other necessities. On the street majority of children were engaged in menial jobs like, carrying goods, shoe shining and street vending (selling small items). And some of them turned to begging as a survival option when they have no other way of sustaining themselves.

The street children in this study have also reflected that there is an inadequate commitment by the government in prioritizing the problems they faced. They expected more attention and responsibilities from the government to rehabilitate and enable them to live a normal life.

Programmes to address street children problems exist and are run by NGOs and in cooperation with Bureau of Labour and Social Affairs of the City. The majority of these programmes were remedial and hence supportive and emphasis on curative approach, i.e. face-to-face works with those children already on the streets. That means they emphasized on rehabilitating projects for street children: either by reunifying them with their families or providing training of different skills and helping them to involve in different income generating activities. The programmes don't include preventive approach which emphasizes on long term solution.

## RECOMMENDATIONS

The researcher proposes the following recommendations to alleviate the problems of street children:

- The findings of this study show that street children are children who are denied the rights to all basic necessities. They are struggling hard to meet their basic needs. They are also becoming more and more vulnerable to a wide range of problems. Therefore, the mass media should work a lot in raising awareness about the strains of street life. So that potential street children will be discouraged.
- According to the finding of this study, though the problem of street children is understood as an urban phenomenon, the factors exacerbating the problem have rural origin. So the problem is not alleviated only through the effort of Hawassa City administration. Rather through the concerted efforts of all stake holders and major efforts need to be done by concerned government offices at grass root level to solve the problem from its source.
- This study indicates that many children are already on the streets of Hawassa. Therefore, two fold programs should be designed by the concerned

government offices, consisting of short-term and long-term programs. Short-term program should be rehabilitative, while long-term program should be preventative.

- Above all awareness raising program, should be given for the general public to bring about effective and sustainable change in the lives of these innocent children because streetism is viewed as a negative phenomena by the majority of the societies.

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*Full Length Research*

# Intervention Strategies for Combating Aliteracy in Nigerian Schools: Implications for Public Libraries and Government

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The study examined the strategies for handling or curbing aliteracy in Nigerian Schools. Aliteracy is having the ability and capacity to read, but lack the interest and motivation to read on a regular basis. Aliterates read for functional reasons and not for pleasure or as a hobby. Lack of reading/literacy was identified as one of the principal causes of underdevelopment in many nations across the globe. The study identified and discussed some of the factors militating against reading habits of students as the lack of reading and reasoning competency, lack of intrinsic motivation, indecision, introduction to ICT among others. Low leadership output, lack of understanding and interpretation of things and situations; the vocabulary and terminology acquisition is low, individual intellectual limitation, poorly developed analytical skills, and lack of knowledge were listed among other consequences of aliteracy. Some of the strategies for managing aliteracy include encouraging reading using ICT device, introduction of readers' club in schools, involvement of students in book recommendation and selection process, encouraging students to do book reviews, organize excursion for students to visit national public/academic libraries. The recommendations identified in this study include allocating time for reading in school Time-Table, parents should encourage reading by buying books as gifts rather than toys, student reading interest should be taken into consideration when selecting books for school libraries, reading competition among others.

**Keywords:** Aliteracy, Reading, Intervention Strategies, Nigerian Schools, Public Libraries, School Libraries, and Government

## INTRODUCTION

Education is the bedrock of national development. The advancement and development of a country depend on sound educational policies and robust structures in place. Thus, nations craving for recognition, Nigeria inclusive should put in place standard educational policies and development. From the National Policy on Education, the goal of the Nigerian Government is to eradicate/eliminate

illiteracy at the shortest possible time through nationwide mass literacy campaign (FGN, 1998). Obanya (2007) notes "relevance determines the use a society make of educational opportunities" (p. 2). The literacy level of a nation is a function of the quality of education received by the citizens of that country. The saying that knowledge is power, suggest that strong and powerful nations are built

on the foundation of knowledge and the application of same to national challenges. According to Issa, Amusan, Adeniran & Bolarinwa (2014) “the level of readership is largely an index of a country’s level of development”. In other words, the strength of a nation lies in the depth of knowledge of the citizens of that nation and how much of the knowledge is utilized in solving personal and national problems. Acknowledging the declining culture of reading, Chinelo (2010) observed that no society could develop above the knowledge base of its citizens. He decried the dying culture of reading among children (the leaders of tomorrow). The pathetic situation indicates that Nigerians are not reading, and if they do, they do it reluctantly. The 21st century era more than any other period in human history has produced a generation of skilled readers and writers. Thus, available opportunities and survival is very limited for the reluctant readers. The century holds a gamut of unpleasant surprises for all non-readers. The ability to function or perform efficiently on a given assignment at work, home, civic or social function depends largely on some measure of literacy or reading skills without which life will be frustrating and difficult (The International Reading Association, 1999, p. 3 or Moore et al, 1999).

The Nigerian society, according to Ilogho (2011) is composed of three categories of people, the partially literate people, the aliterate people and the avid readers. The partially literate people have no formal education. However, the partially literate acquired knowledge and information orally from parents, family members and their interaction with their environment. The avid readers are highly motivated individuals who take delight in reading. They read with passion and for pleasure. They naturally love and enjoy reading. Reading for pleasure could be described as free will reading with an anticipated satisfaction in view (Clark & Rumbold, 2006). The aliterates read by compulsion. They are unwilling and reluctant readers. They are uncommitted and occasionally motivated individuals. Aliterates are inconsistent or irregular readers. The Online Merriam-Webster Dictionary (2014) describes aliteracy as having the ability to read yet lacking the interest to do so. Aliterates readers easily abandon whatever book they set out to read. They cannot boast of reading more than a book in one year without several breaks. Aliteracy exist and cut across every profession and strata of society. Aliteracy affects students across all levels of education, career/profession, including those in the teaching profession. Cole (2002) explores readers’ beliefs, reasons and purposes as what motivates students to read. Aliteracy is here with us, and though we cannot run away from this fact, the challenges can be addressed. According to the Mark Twain Circle of New York (1998) “The man who does not read good books has no advantage over the man who can’t read them”. In other words the literate who can read but refuses to read is no

better than the illiterate man who cannot read at all.

Igbokwe, Obidike and Ezeji (2012) citing Henry (2004) found in one of the studies carried out in Nigeria that “40 percent of adult Nigerians never read a non-fiction book from cover to cover after graduating from school”. An average Nigerian is believed to read less than one book per year. Only one percent of successful men and women in Nigeria read one non-fiction book per month. The study further revealed that 30 million Nigerians who graduated from high school have poor reading skills. This explains why Nigerian students hardly read except for reasons of a test, examination, homework, and occasionally for recreation.

### Statement of the Problem

A large percentage of Nigerian students do not see reading as pleasurable. Instead, reading is generally viewed as a work. Igbokwe, Obidike & Ezeji (2012) observed that students rarely read for pleasure or enjoyment, rather they read only to pass an examination. Students prefer to sit back and watch the screen than read school recommended books, newspapers and other educational materials such as novels, fiction literature, etc. With increasing use of information technology, the prospect of spending leisure time or even creating time to browse through a book does not readily come to mind as it was in the past. The current study, therefore, seeks to achieve the following set of objectives:

- Identify some of the factors militating against reading habits of students
- Highlight consequences of poor not reading habit for individuals and society
- Examine some strategies for tackling/managing aliteracy in Nigerian schools
- Examine the possible implication for public libraries in Nigeria

### LITERATURE REVIEW

A passion and love for reading is imperative for a sustainable disciplined reading lifestyle. According Sangkaeo (1999) the number of disinterested readers or reluctant readers compared to those who read is on the increase. The aliterates in the society have outnumbered the illiterates (Beers, 1996). Kjersti VanSlyke-Biggs (2011) citing the National Endowment of Arts (2007) reported that teens are reading less and for shorter amounts of time. The report further reveals that nearly half of all Americans age 18 to 24 read no book for pleasure. According to Gann, Sharp, & McIlquham (2013) reading is the ability to sort through a staggering amount of information and thoughtfully engage with text while

utilizing cogent reasoning. Each reader must actively engage in the skill of reasoning for effective reading to occur. Thus, the lack of reasoning competence could result in frustration and eventual loss of interest in reading. Trelease (1998) observed in Welther (2002) that “we need to advertise reading; we need to read to our children to entice them and instill in them the desire to read” (p. 17). The two studies of Trelease (1995; 1998) emphasized the importance of reading aloud to children. Reading habit is enhanced when children are introduced to reading at the elementary school level (Pavonetti & Cipielewski, 2000).

Ilogho (2011) opines that a reading lifestyle is dependent on the individual’s personal decision. Many young reluctant readers have a problem deciding whether to read or not, when to read, and why they should read. The need for reading is not in view, hence reading is considered as difficult, boring and burdensome. The decision to do a thing compels that individual to act which in turn depends on whether there is a strong reason for the action. Some of the factors identified as responsible for the dying reading culture of young people include:

**Lack of intrinsic motivation for reading:** the ability to engage in an activity for its sake (Hidi & Harackiewicz, 2000). Intrinsic motivation is from within forms the basis for establishing the love for reading. In other words, reading is sustainable when it is motivated by love (Purdy, 1995).

**Lack of choice of what to read:** lack of choice of what to read. Gambrell (1996) found that over 80% of children indicated a book they chose for themselves when asked to make a comment about the book they enjoyed. Provoking and sustainable reading interest requires the involvement of readers choosing the materials to read.

**Negative attitude to reading:** negative attitude to reading could develop when reading is not based on individual willingness, interest or a decision to read including, when an individual is forced. Individual is crucial to a reading lifestyle. Although Mitchell & Ley (1996) observed that studies on attitude towards reading of students at the high school level of education is limited in the literature. Kush & Watkins (2002) in their research addressed the subject of children’s attitude to reading and long-term stability.

**Competing activities for reading:** quite a number of activities compete for the attention of young people, including ICT devices such as video games, sports (indoor and outdoor games), entertainment TV programs and several other compelling activities. Anne and others (2011) observed that the decline in reading among children is an offshoot of technological advancement. ICT has brought changes in all strata of society, including the education sector and the family. Most young students who have access to computers, tabs and internet facilities prefer to browse, and engage in diverse forms

social media, in the absence of household chores rather than reading. Occasionally, we see isolated cases of students’ engagement in reading as a recreation. In this IT driven age, there are more than enough activities competing for the little available time for students.

Another contributory factor to the reading decline among students include: the transition experience from elementary to middle school which creates in students a mindset that middle school is “serious” or difficult. Thus, reading is associated with increased testing requirements and work (Gallagher, 2009). Furthermore, Clark & Rumbold (2006) identified some issues causing reluctant reading tendencies, including low self-esteem, boredom and peer influence and suggest creative approach to dealing with reading disengagement related issues.

### Consequences of Aliteracy on Individuals and Society

Much is at stake when majority of the people in society are reluctant readers and many experience unnecessary and avoidable limitations. The following are some negative consequences of aliteracy for the individual and the larger society:

- Extreme ignorance of various subjects and issues of life;
- The Leadership output and impact from a nation of reluctant readers is likely to be very low (that is a case of the blind leading the blind)
- Lack of visionary leadership
- Lack of understanding and interpretation of things and situations;
- The rate of vocabulary and terminology acquisition is low;
- There is a high level of individual intellectual limitation;
- Poor development of individual analytical abilities;
- Lack of individuals’ exposure and knowledge of important locations across the globe
- Lack of reading deprives individuals of inspiration, insight and revelations; Murphy (1998) “notes that our enthusiasm, insights, and expectations can entice children to become more actively involved in literacy” (p. 93).
- Impairment of individual mental development and imagination;
- Opportunities for self development is kept hidden and never discovered;
- Lack of reading hampers self cerebral development which can result in mental stagnation;
- Lack of reading impairs self confidence and boldness;

- Interpersonal relationships are poorly managed and cannot improve without reading;
- Lack of reading hinders people from making quality decisions;
- Lack of reading hinders one of envisioning a bigger and brighter future

### **School Library Intervention Strategies for Managing Aliteracy**

The primary/secondary school library is strategically the centre of all intellectual activities. The library houses all print and non-print materials, including audio and audio-visual resources, etc. The librarian's primary responsibility is to lead the entire school staff and students in a reading revolution in which students are taught to desire and enjoy reading instead of just learning how to read for the sake of doing so. Murphy (1998) alerts that overlooking/ignoring the experience of aesthetic in reading could mean a failure to dealing with the challenges of aliteracy. He further, "notes that our enthusiasm, insights, and expectations can entice children to become more actively involved in literacy" (p. 93).

As a priority, the school librarian must know the areas of interest of users in reading. The United Nations and UNESCO over the years gave high priority to reading promotion through education and cultural organizations. The result is the publication of diverse information sources such as easy to read books, newspapers, etc. while championing the school reading revolution; the school librarian should ensure students are actively engaged.

The school librarian must adopt effective, workable strategies when organizing/planning reading promotion programmes for students. The school librarian must carry everyone along in pursuance of the reading revolution. In other words, students, teachers, parents, and non-teaching staff alike should be properly educated about the reading promotion plan. The school in addition to the effort of the school librarian could address the problem of aliteracy by adopting designed reading programmes (Moorman, 1983). Mackey, & Ingrid (1996) listed some strategies for encouraging reading among reluctant readers. These include:

- Assigning reading time to students in class.
- Involve students in selection of books among a limited number.
- Discuss selection techniques with students,
- Follow-up an author's series or genre,
- Browse the internet for diverse titles of interest,
- Talk to friends, a teacher, a librarian or make a choice based on an appealing title or cover.

- Read the beginning of novels aloud in class to get reluctant readers hooked.

Other strategies to encourage reading among students are:

### **Projection of the benefits of reading to students:**

This involves painting a picture of what students stand to gain, achieve or become by making reading a lifestyle. It is the school librarian's responsibility to help library users see and dream of a great future through the art of reading. Students should be helped to understand that reading is a platform for interacting with great minds and visionary men and women.

### **Encourage writing in order to inspire a love for reading**

It is an established fact that every writer is a reader. Therefore, students can be encouraged to write stories of their own. Therefore great writers are born out of great commitment to reading as a lifestyle.

### **Encourage Information and Communication Technology Skills to Inspire Reading Motivation**

Information and Communication Technology is a strong tool for encouraging reading among youths. The youths of this generation tend to find this technology, highly fascinating and exciting. ICT devices are user friendly, easy to use and require manipulative skills. Hardly can we find young persons in urban cities who cannot use or operate any of the new Information and Communication Technologies, be it internet, TV, telephones, GSM, emails, computers, computer games etc. Research however, has shown that many young people prefer reading via ICT devices. ICT is not only ideal, it is effective, for promoting reading habit, especially among young people who have a flare for ICT. Hassan, Olaseni, & Mathew (2012) discovered from investigation that students read online information more than offline information. That reading of emails and online information surpassed the reading of information in print format. Today there are a wide range of electronic information resources and databases. Literary works for children and teenagers abound on the internet, including stories and novels in CD-ROM formats, talking books, audiovisual, e.t.c. Young people can be encouraged to read electronic materials, especially those who have access to ICT devices.

### **School Readers' Club**

Another way school libraries can mobilize reading campaign in school is to involve everyone in the school

through the instrument of a "READERS CLUB". The club membership should consist of the school librarian, teachers and students. The club is responsible for organizing reading campaign and events in the school. The club may choose to organize programmes on weekly, monthly and yearly basis, taking into consideration all categories of students. The following are some of the programmes of the Readers Club:

- Go on an excursion to university libraries, national libraries, publishing houses.
- Organizing a reading competition and giving awards to the best readers.
- Visiting renown authors/writers and publishing houses
- Organize trainings and seminars on reading for students and teachers;
- Weekly design bookmarks by students under the supervision of teachers to promote a particular book, genre, or nonfiction material.
- Students are encouraged to participate in book recommendation and selection process for the library.
- Participation in student journalism which involves writing reviews of new library books and publishing them in the school newspaper/magazine.
- Organizing book talks and allow students to record the whole event, on audio CDs, and DVDs.
- Create time for students to talk with each other in an informal one-on-one or a small-group basis about books they have read for assignments or share aspects about the books they are reading.
- Engage students in selecting books for teachers to read out to students in the elementary schools. The benefits of involving children in book selection cannot be over stressed. Moss & Hendershot (2002) examined the selection of nonfiction books by sixth graders.
- Engage students in designing poster advertisements about books and display them in hallways, e.t.c.

### **Implication for Public Libraries in Nigeria**

The destiny and development of Nigeria depend on what the leadership of today/future does or fails to do, thus the current need to salvage the dying reading culture in our nation Nigeria. Apart from the effort of the government, there is a need for public libraries to provide leadership in the campaign for a national reading culture, through their mentoring role to primary and secondary schools. For the

purpose of community impact, academic libraries can embark on programmes that will not only promote reading awareness in Nigerian public and private schools, but also improve library services to pupils/students in Local Government communities. Such programmes include:

- Organizing conferences, seminars and trainings for school/teacher librarians to update them with knowledge of the latest practices in librarianship
- Provide consultation and support services for school libraries in aspects of improvement of service delivery and how to make libraries more relevant to users.
- Assist new schools to set up standard school libraries on request.
- Extend consultation services to companies/organizations who desire to have libraries of their own.
- Encourage schools to establish and publish a school magazine that will, among many things promote reading awareness.
- Identify and form alliance with Book Donation Agencies to receive books and distribute same to schools that cannot afford to buy books.
- Organize inter-school reading competition where the best readers given book awards.
- Organize Book Fair/Exhibition to involve publishers, authors, secondary and primary school, schools, ministry of education (state and federal), NGOs and others.
- Identify wealthy individuals, organizations and politicians who are interested and willing to sponsor buildings and the establishment of community libraries.

### **CONCLUSION**

Until people positively change their attitude to reading they may never uncover the countless hidden secrets of life success and achievement. Thus addressing the decline in reading among Nigerian youths is an important subject of concern to educators, parents, government and other stakeholders. The reluctant reading behaviour displayed by both old and young adults reflects the state of intellectual decay and backwardness in society. The lack of desire, urge, interest, drive or motivation to read by educated literate persons describes "aliteracy". Several militating factors have been identified as being responsible for the ever increasing non-reading population, factors like sports activities, music, art, party events and diverse kinds of ICT devices such as internet, emails, computer games, iPods, DVD films, satellite T.V



programmes, etc. These and many more compete favourably for the attention of the majority of people especially young adults. There is therefore a need to draw attention to young people's reading needs, interest, and challenges in order to make them want to read more. Research investigations show that intrinsic motivation, interest, attitudes, preferences and material types have in a way influenced students reading culture, particularly in this age of Information and Communication Technology.

Given the necessary support of government at different levels, in conjunction with the contributions of tertiary institutions, attitudes of students to recreational reading will definitely improve. The school librarian, together with all academic staff are at the forefront leading the reading revolution campaign in Nigerian schools is saddled with the responsibility of putting in place programmes aimed at helping students experience an aesthetic response to reading. Such that they become self-motivated and independent readers, who need no push to read.

## RECOMMENDATIONS

Parents, teachers, librarians and school management should work as a team to encourage students' positive attitude to daily reading, whether in school or outside the school. The following are some recommendations for schools and school libraries:

- Free reading time to be included in the school time-table such that it is not associated with test, examination, homework etc.
- Students should be given the freedom to choose from a variety of materials in different formats what they want to read during their leisure time.
- Encouraged by parent teachers and school librarian should build their home library collection to suit the interest of the students.
- Parents, teachers, school management and librarians should encourage reading by giving book gifts to students in different areas of achievements.
- Teachers and librarians should structure reading events to suit children's' current interests, and include group discussions that encourage aesthetic responses.
- Schools should introduce reading activities such as reading group meetings, sharing reviews of books, and interaction with local authors.
- Libraries should provide reading stories in multimedia presentations that include audio and visual components.
- Teachers should engage in book discussions with students regularly to promote analytical

reasoning skill development.

- Classroom library that has a wide range of material including graphic novels, nonfiction, picture books designed for older readers, and books from a variety of cultures should be introduced.

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*Full Length Research*

## **Effective Solid Waste Management: A Panacea to Disease Prevention and Healthy Environment in Bayelsa State, Nigeria**

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The problem of waste management has become a debilitating factor towards preventing diseases and sustenance of healthy environment. Waste is considered as material which arises from animal and human life activities, which is discarded as useless and unwanted, that can attract pathogenic organisms causing disease and unhealthy environment. The paper reviewed the concepts of waste, sources of waste, types of wastes, concept of waste management, methods of waste disposal, the challenges for effective waste management, consequences of poor solid waste management and its impact to disease prevention and sustenance of healthy environment It was concluded with few suggestions made; that waste management should be provided with a separate head in the budget for the purpose of adequate revenue allocation, implementation, and monitoring. The participation of the local communities in waste management should be encouraged. Environmental health enlightenment campaigns should be intensified by both the state and local governments. All primary, secondary and tertiary schools curricula should inculcate detailed topics on environmental health education. Appropriate government agencies should enforce the environmental laws or policies toward achieving the goal of prevention of diseases and sustenance of healthy environment.

**Key words:** Solid waste, Waste Management, Challenges, Health Hazards, Disease prevention, Healthy environment.

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### **INTRODUCTION**

The management of solid waste, perhaps, stands as the most visible environmental problem facing the capital and communities of Bayelsa State. The problem is growing daily as a result of increasing urbanization. The solid waste problem is visible in most parts of the communities within the Yenagoa metropolis, on the roads, within the neighbourhoods and around residential buildings. The environment of man lies at the mercy of both natural disaster and negligence on the part of man in the course of controlling the gifts of nature. The later takes the form

of dumping solid waste in an uncompromising pattern, that can cause; desert encroachment, erosion, depletion of ozone layer, depletion of natural resources, pollution of land, rivers, the air and generally the environment (Aguwanba,1998). According to Egunlobi (2004), in the early times (pre- colonial days) up till 1970s, the disposal of refuse and other waste did not pose any significant problem. The population was small and enough land was available for assimilation of waste. Solid waste problem started with urban growth, resulted partly from national

increase in population and more importantly from immigration. Ndakara (2011) also states that the quantity of such waste depends mainly on location, activity and number of people in the household.

However, it was not until the mid- 19th century, spurred by increasingly devastating cholera outbreaks and the emergence of a public health debate that the first legislation on the issue emerged. Thus the social reformer, Sir, Edwin Chadwick's 1842 report on "The Sanitary Condition of the Labouring Population, became influential in securing the passage of the first legislation of waste clearance and disposal, in which he argues for the importance of adequate waste removal and management facilities to improve the health and wellbeing of the city's population. (Barbalace, 2003).

Early garbage removal trucks were simply open bodied dump trucks pulled by a team of horses. They became motorized in the early part of the 20th century and the first closed body trucks to eliminate odours with a dumping lever mechanism were introduced in the 1920s in Britain. These were soon equipped with "hopper mechanisms" where the scooper was loaded at floor level and then hoisted mechanically to deposit the waste in the truck. The Garwood Load Packer was the first truck in 1938, to incorporate a hydraulic compactor (Herbert, 2007).

Mba (2003), noted that no town in Nigeria especially the urban and semi- urban centres of high population density can boast of having found a lasting solution to the problem of filth and huge piles of solid waste, rather the problem continues to assume monstrous dimensions. To urban and city dwellers, public hygiene starts and ends within their immediate surrounding and indeed the city would, take care of itself. The situation has so deteriorated that today the problem of solid waste management has become one of the nation's most serious environmental problem (Okpala, 2002).

Ineffective waste management could rubbish all the resources and efforts put in beautifying the environment. Every year, the government of Nigeria, Bayelsa state inclusive spends billions of naira to roll back malaria, without focusing on some environmental factors such as poor waste management that makes malaria to thrive. Blocked drains provide stagnant water which facilitates the breeding of mosquitoes and other sickness causing germs (Ogadimma, 2011).

## OBJECTIVE OF THE PAPER

The aim of this review was to examine the effectiveness of waste management as a panacea to disease prevention and healthy environment in Bayelsa state. Specifically it seeks to:

1. Examine the effectiveness of waste management in Bayelsa state.

2. Examine how proper waste management can prevent disease and sustain healthy environment.

## Theoretical Framework

This review is anchored on the system theory and Waste management theory: System theory generally looks at the inter - dependence, and inter-connections of different parts to sustain, or encourage the harmonious function and stability of the system. Waste management as a part of the entire system within the society could have implications on health, environment and even climate change if not well planned by the government. So waste disposal becomes as important as water and electricity or provision of other infrastructural facilities within the society (Ogadimma, 2011). The theory of waste management is based on the consideration that waste management is to prevent waste, causing harm to human health and the environment, and application of waste management leads to conservation of resources ( Pongraz, Philip & Keiski, 2004).

## Concept of Solid Waste

Douglas (2004), describe waste as materials which arises from animal and human life and activities and is discarded as useless and unwanted. Thus waste includes all items that people no longer have any use for, which they either intended to get rid of or have already discarded. Solid waste means any garbage, refuse, sewage-sludge from a wastewater treatment plant, or air pollution control facility and other discarded materials including solid, semi-solid, or contained gaseous material, resulting from industrial, commercial, mining and agricultural operations, and from community activities. Simply put- Solid wastes are any discarded or abandoned materials. Solid wastes can be solid, semi-solid or containerized gaseous material. (Department of Environment Conservation). The World Health Organization (2008), also refer to waste as "something which the owner no longer wants at a given time and space and which has no current or perceived market value. This present a broad based definition towards the classification of what constitute waste. However, what one regards as waste may not be totally useless, as much can be recycled to produce new products.

According to Areme, Osazuwa, and Nduka, (2007). Waste generated in the country were characterized by a high percentage (60-80%) of domestic and commercial waste. This gives the waste high density and makes them very attractive to flies, cockroaches, rats, and other vermin. Thus the defective strategies and arrangements adopted for solid waste management in Yenagoa,

Bayelsa State create erroneous impression that urban waste management problems are intractable. This stems from the fact that the rate of collection and evacuation perpetually lag behind the rate of generation which makes solid waste accumulation a major source of environmental nuisance within the Yenagoa metropolis.

### Concept of Waste Management

Waste management is the “generation, prevention, characterization, monitoring, treatment, handling, reuse and residential disposal of solid waste.” Also according to Omuta, (1988). Solid waste management concerns the interplay, among generation, storage, collection and final disposal. Waste is introduced into the environment due to the day-to-day activities of humans. There are various types of solid waste including municipal (residential, institutional, commercial), agricultural, and special waste (health care, house hold hazardous waste, sewage sludge). The term usually relates to materials produced by human activity, and the process is generally undertaken to reduce their effect on health, the environment or aesthetics (Waste Management, 2013). Waste needs to be managed in order to prevent contact with humans and their immediate environment. Therefore, the main purpose of waste management is to isolate waste from humans and the environment, and consequently, safeguard individual, family and community health. In addition the aesthetic value of a better outlook and a clean physical environment is important for our emotional wellbeing.

Rodgners (2011), contends that waste management is a systematic control of generation, storage, collection, transportation, separation, processing, recovery and disposal of solid waste. In the smallest of places, solid waste management is accepted as a major aspect of the indigenous community organization and traditional home management; hence every house, compound has a designated area for solid waste collection/disposal and or incineration (Sanda, 2008). There is a wide array of issues relating to waste management and those areas include: Generation of waste, waste minimization, waste removal, waste transportation, waste treatment, recycling and reuse, storage and collection, landfill disposal, environmental considerations, policy and regulations, education and training, planning and implementation.

There are a number of concepts about waste management which vary in their usage between countries or regions. Some of the most general, widely used concepts include: Waste hierarchy; the waste hierarchy refers to the “3Rs” reduce, reuse and recycle, which classify waste management strategies according to their desirability in terms of waste minimization. The waste hierarchy remains the cornerstones of most waste minimization strategies. The aim of the waste hierarchy is

to extract the maximum practical benefits from products and to generate the minimum amount of waste, (Barbalace, 2003). Table 1

Generally, waste could be liquid or solid waste. Both of them could be hazardous, and solid waste types can be grouped in to organic, re-usable and recyclable waste as stated below

**Liquid Type:** Waste can come in non-solid form. Some solid waste can also be converted to a liquid waste form for disposal, Examples of liquid waste include wash-water from homes, liquids used for cleaning in industries and waste detergent.

**Solid Type:** Solid waste predominantly, is any garbage, refuse or rubbish that we make in our homes and other places. These include old car, tires, old news papers, broken furniture and even food-waste.

**Hazardous Type:** Hazardous or harmful waste are those that potentially threaten public health or the environment. Such could be inflammable (can easily catch fire), reactive (can easily explode), corrosive (can easily eat through metal) or toxic (poisonous to human and animals. Examples include fire extinguishers, old propane tanks, pesticides, mercury- containing equipment (e.g thermostats) and lamps (e.g fluorescent bulbs and batteries).

**Organic Type:** Organic waste comes from plants or animals sources. Commonly they include food waste, fruit and vegetable peels, flower trimmings and even dog poop can be classified as organic waste. They are biodegradable (this means they are easily broken down by other organisms over time and turned in to manure).

**Recyclable Type:** Recycling is processing used materials (waste) in to new, useful products. This is done to reduce the use of raw materials that would have been used. Waste that can be potentially recycled is termed “Recyclable waste.” Example are Aluminum products (like soda, milk and tomato cans), plastics ( grocery shopping bags, plastic bottles), Glass products ( like wine and beer bottles, broken glass), Paper products ( used envelopes, news papers and magazines, cardboard boxes), can be recycled and fall in to this category.

### METHODS OF SOLID WASTE MANAGEMENT

Solid waste management practices can differ from developed and developing nations, for urban and rural areas, and for residential and industrial producers. Management of non-hazardous metropolitan areas is usually the responsibility of the local government authorities, while management of non- hazardous

**Table. 1:** Sources and Types of Solid Waste

Source	Waste Generators	Type of Solid Waste
Residential/ Domestic	Single and multi-family dwellings	Food-waste, paper, cardboard, plastics, textiles leather, metal ashes, special wastes( e.g bulky items, consumer electronics, batteries oil, tires) and household hazardous wastes ( e.g paints, aerosols, gas thanks, waste containing mercury, motor oil, cleaning agents).
Commercial	Stores, hotels, restaurants, markets, office building, parks, beaches, areas	Paper, cardboard, plastics, wood, food-waste, glass, hazardous waste, general wastes from parks and beaches, e-wastes( e.g computers, phones television etc.
Institutional	Schools, hospitals,(non-medical waste), prisons, government buildings, air ports	Same as commercial
Medical-Services	Hospitals, nursing homes, and clinics.	Infectious waste (bandage, gloves, cottons, swabs, blood and body fluids), hazardous wastes ( sharps, instruments, chemicals), radioactive waste from cancer therapy, pharmaceutical waste.
Agricultural Activities	Crops, orchards, vineyards, dairies feedlots, farms.	Spoiled food waste, agricultural waste (e.g rice husks, cotton-stolk coconut -shells, coffee waste), hazardous waste (e.g pesticides).

**Source:** Chardwick (1842), Report on sanitary conditions.

commercial and industrial waste is usually of the responsibility of the generator subject to local, national or international authorities (Hoorweg, Lan & Chandhry, 2005). Waste management simply means the collection, transportation, processing or disposal, managing and monitoring of waste materials to minimize its consequences on humans and the environment. There are several methods of managing all the various types of waste, (Hoorweg et al, 2005).

**Generation of Waste** The growth of human population couple with increased economic activities in the city and communities of Bayelsa state had resulted in high rate of solid waste generation. A fundamental attribute of solid waste is that, it is inevitable as almost every human activity involves the generation of waste in solid, liquid and gaseous forms. Social dynamics such as modernization and economic resource allocation had forestalled a mismatch between the rate of waste generation, rate of collection and disposal (Johnson, 2010).

#### **Waste Storage, Collection, Transportation and Disposal Methods**

Refuse storage, collection and management has

continued to pose a major challenge to both developing and developed countries. Transport of waste from households, and other generation sites is a growing problem. The management of solid waste is far from being satisfactory in Bayelsa state. Many parts of the city and communities do not benefit from any organized waste management services and therefore wastes are unattended to, buried, burnt or disposed haphazardly. In areas where the Authority do the collection, it is often irregular and sporadic. Recycling of waste is negligible while the methods used for collection, transportation and final disposal are unsatisfactory.

However the Government of Bayelsa state have adopted different methods of solid waste disposal. One time contractors were assigned to evacuate solid waste from various dumps, and recently solid waste conversion vehicles are used by the Environmental Sanitation Authority and yet it is not uncommon to informal waste collectors using local vehicles (push carts) for collection services from door to door within the state capital constituting a major health hazard in the Yenagoa metropolis. Figure 1

It is believed that the refuse disposal vehicles are inadequate and substandard (exposed sanitation truck as seen in Figure 2, below). The areas that are more susceptible to the endemic problem are along the road



**Figure 1:** Locally Constructed Waste Disposal Push Cart.



**Figure 2:** Exposed Sanitation Waste Disposal Truck Along Sani Abacha Express Way.

sides of Amarata, Ekeki, Opolo market, and Swali market dumps, and worst of all at Edepie community off Tombia Amassoma road, which is used as the central refuse dump for the entire Yenagoa metropolis, have turned to a good feasting place for vultures and scavengers, causing nuisance to motorists, air pollution and making the entire environment stinking and uncomfortable for human beings to live and could contribute to contracting diseases as well as leading to unhealthy environment.

### **The Integrated Solid Waste Management**

Integrated solid waste management, reflects the need to approach solid waste in a comprehensive manner with careful selected and sustained application of appropriate technology, working conditions, and establishment of a “social license” between the community and designated waste management authorities (most commonly local

government). Integrated solid waste management is based on both a high degree of professionalism on behalf of solid waste managers, and on the appreciation of the critical role that the community, employees, and local (and increasingly global) ecosystem have in effective on solid waste management, (Shekdar, 2009). Integrated solid waste management is based on the hierarchy of waste management: “reduce, reuse, recycle” often adding a fourth “R” for recovery. A good example is the combustion method which is the controlled burning of waste in a designated facility to reduce its volume and in some cases, to generate electricity. This is a best option for waste that cannot be recycled or composted These waste diversion options are then followed by incineration and landfill, or other disposal options.(Tim, 2008).

These integrated solid waste management practice is not feasible for now in Bayelsa State since it is still a baby state in terms of environmental sustenance which might be due to lack of appropriate equipments. Most

importantly the attitude of people (inhabitants) especially traders, dump their refuses carelessly without adhering to environmental sanitation guidelines. These negative attitude is more obvious, seeing sanitation dump sites, meant for refuse disposal built at strategic places within the Yenagoa Metropolis, yet individuals with no regard for maintaining healthy environment will prefer dumping their refuse in a haphazard manner, not minding the stinking odour it might produce and the possibility of attracting micro- organism to feast on the solid waste, that can cause diseases to human beings as well as creating an unhealthy environment.

**Waste Reduction Method:** Recently, as many people have come to appreciate the need to do something about waste, there have been increased efforts to embark on source reduction schemes. According to the United States Facts and Figures (2012), on municipal solid waste generation, recycle, and disposal; source reduction is simply a range of activities that individuals, communities and manufacturing establishments engage to reduce the amount of toxic substances or waste that they generate. Examples include: (1) Manufacturers can reduce the amount of package and wrapping materials they use on products. (2) Produce materials that last longer, rather than cheap stuff that break after a short period. (3) Manage organic waste such as food crops, and yard trimming in ways that can keep them out of the trash bin. For example, Coca Cola has reduced the weight of its can by 41% since 1963, by reducing its aluminums usage and also shaving off some part of the cans.

**Waste Recovery Method:** This is the reclaiming of “trash” materials that have for so long be considered as waste and destined to the landfill. It involves collecting, sorting (and sometimes grading) and processing of waste in to compost or new raw materials that are used in manufacturing new products. The most used waste programmes involve energy recovery, recycling and composting, (Turan, Coruh, Akdemir, & Ergun, 2009).

**Energy Recovery:** This involves the conversion of non-recyclable waste into usable heat, electrification, or fuel through a variety of processes, including combustion, gasification, or otherwise, and further converted into useable energy. This process is called “ Waste to Energy” (WTE). Energy recovery from waste is part of the non- hazardous waste management hierarchy. Using energy recovery to convert non-recyclable waste materials into electricity and heat, generates a renewable energy source and can reduce carbon emissions by offsetting the need for energy from fossil sources as well as reduce methane generation from landfills. In 2011, about 29million tones of MSW (12%) were combusted for energy use, generating over 2700 Mega watts of power

per day. Globally, waste- to- energy accounts for 16% of waste management, (National Waste Recovery Association, 2012).

**Recycling;** is a resource recovery practice that refers to the collection and reuse of waste materials. It involves the conversion of waste or used materials such as glass, metal, paper, aluminum, plastics, and others into their raw material state to use again. Re-use means the use of a product on more than one occasion, either for the same purpose or for a different purpose, without the need for reprocessing. This avoids discarding a material to a waste stream when its initial use has concluded. It has become a very important function of many waste management and environmental organizations recently, because it has helped reduced our dependence on fresh raw materials, and saved a huge chunks of waste that would have ended up in landfill, reduced quantity of disposed waste (Saeed, Hassan, & Mujeebu, 2009).

**Composting:** This is a recovery process that involves the conversion of organic waste (food waste), with the help of bacteria, moisture and aeration. Composting ends up compost, a high-nutrient soil type that is used to fortify farm soils. Heat can be extracted from large composting units, which is an added bonus to the facility. Over the past decades, education, information and public engagement especially in developing countries, has yielded some interesting results. In 1996, 27% of Municipal Solid Waste (MSW) was recovered in the U.S.A, exceeding the national goal of 25% set by the U.S. Environmental Protection Agency (EPA). In 2012, Americans generated about 251 million tons of trash and recycled and composted almost 87 million tons of these material equivalents to a 34.5 percent recycling rate. (United States. Facts and figures, 2012).

**Waste Prevention and Minimization:** Prevention is the most desirable waste management option, as it eliminates the need for handling, transporting, recycling or disposal of waste. It provides the highest level of environmental protection by optimizing the use of resources and by removing a potential source of pollution. Minimization includes any process or activity that avoids, reduces, or eliminates waste at its source or results in re-use or recycling. For example, encouraging consumers to avoid using disposable products ( such as disposable cutlery), removing any food or liquid remains from cans and packaging, and designing products that use less material to achieve the same purpose (Laoye, 1979).

**Incineration Method of Waste Disposal:** This simply means burning waste. This method is common in countries with limited landfill areas. Incineration chambers can be small for domestic use, but there are



large ones for municipal use as well. It is great for treating waste with contamination (like those from hospitals) and hazardous waste from factories, but the method produces too much carbon dioxide. Modern incineration processes are more efficient and releases less dioxin than home fire places and backyard barbecues. This method is effective but expensive, (U.N-Habitat, 2009).

**Sanitary Landfills as Waste Disposal:** Generally this term means a large piece of land away from living places where all the waste from a town is deposited. This involves burying the waste. But there is more to landfills. Proper landfill management involves sorting out all the waste (waste separation), and sending only the waste that can not be recycled and composted to the site. Proper landfills are also lined at the bottom to minimize the leakage of soil pollutants and other toxins from getting in to the water table. Landfills were established in abandoned or unused quarries and borrow pits. This method is effective, but expensive and difficult, (Graiser, 2007).

In many towns like the Yenagoa Metropolis, sorting out is not done, and all the waste for example, (papers, food, diapers, glass) is mixed up and deposited. That is a problem because, glass, and plastics take thousands of years to decompose. Additionally, the landfills soon become full, smelling and unsafe for the environment, as well as predisposing the lives of human beings to various forms of infection such as air borne diseases, that can affect the respiratory system, gastro intestinal tract infections, among others, since the environment has turned to be a feasting ground for micro organisms. Proper waste management is not cheap, but is something we all have to get involved and discuss it. The effect of not getting involved can be catastrophic to our health and the environment, (Solomon, 2009). See Figure 3.

A properly designed and well managed landfill can be a hygienic and relatively inexpensive method of disposing of waste materials. Older, poorly designed or poorly managed landfills such as the type in Bayelsa State, can create a number of adverse environmental impacts such as wind-blown litter, attraction of vermin and generation of liquid leachate. Another product of landfills is gas (mostly composed of methane and carbon dioxide), which is produced as organic waste and breaks down anaerobically. This gas can create odour problems, kill surface vegetables and is a greenhouse gas, (Ezema, 2009).

### **Challenges of Waste Management in Bayelsa State**

The management of waste is one of the major challenges confronting city managers globally. In Nigeria the rural-urban migration pattern for greater economical and social

opportunities has compounded the waste generation and disposal challenges of these cities. Solid waste management remains one of the most daunting environmental sanitation challenges facing the Bayelsa State capital today and it has continually remain at its lowest ebb despite huge investments in the sectors. Currently as a result of urbanization and rapid population growth in the cities of Bayelsa State, wastes are generated faster than they are collected, transported, and disposed. This problem of urbanization has also compounded the problem of waste management as land becomes scarce, human settlements encroach upon landfill space, and government in some cases encourage new development directly on top of operating on recently closed landfills.

It is a well known fact that one of the consequences of production and consumption is waste management. However, this singular reason cannot prevent people from production and consumption activities. According to Engner and Smith (2002). During the pre-colonial resolution, production and consumption was equally low, and its management did not constitute any serious challenge. In Nigeria, this popular lifestyle or habit of "Use once and throw away" have become so fashionable to the extent that it has posed so much challenges of sustainable waste management (Uwadiogwu & Chukwu, 2013). According to Hoornweg and Thomas, (1999). In solid waste management there is no "away". When throwing away waste, system complexities and the integrated nature of materials and pollution are quickly apparent. For example waste incineration is expensive and poses challenges of air pollution and ash disposal. This situation has caused a disproportion in the rate of solid waste collection and evacuation and that of generation, which had contributed to waste accumulation as a major source of environmental nuisance in Nigeria, of which Bayelsa State is not an exception.

Waste management in cities with developing economies experience exhausted waste collection services, inadequately managed and uncontrolled dumpsites and the problems are worsening. Hence there is serious need for adequate and sustainable management strategies in handling the waste generated, from the process of production and consumption. Unfortunately, within the Yenagoa metropolis of Bayelsa State, the management of waste has continued to be poorly handled. Aguwanba (1998) also noted that the state environmental agencies have been hampered by poor funding, inadequate facilities, human resources, inappropriate technology and an inequitable taxation system, and some of the waste management staff are poorly trained and does not make use of personal protective equipments, such as hand gloves, face masks, spectacles, and safety boots while coming in contact with waste materials. In addition to these limitations, are the ever increasing challenges of rapid population growth



**Figure 3:** Central Dump Site, Off Amassoma Road, Edepie-Yenagoa.

rate and poor planning, which has not only affected solid waste volume but also made solid waste management strategies incapable of keeping pace with the rate of generation.

Landfills require land availability, and the setting is often opposed by potential neighbouring residents. Solving one problem often introduces a new one, and if not well executed, the new problem is often of greater cost and complexity. Locally, waste collection vehicles are large sources of emissions and both incineration and landfilling contribute “greenhouse gas. Uncollected waste can provide breeding areas and food to potentially disease carrying vectors such as insects and rodents, with their associated health and nuisance issues. Waste management cannot be effectively managed without due consideration for issues such as the city’s over- all Green House Gas (GHG), emissions, labour market, land use planning, and myriad related concerns( Pepera, 2003). Other problems facing waste management are as follows: No system of primary collection from the doorstep, no storage of waste at source, irregular sweeping, poor waste storage depots and the use of traditional handcarts/ tricycles that carries waste, spills over which are both unsightly as well as unhygienic ( Smith, 2005).

### **Consequences of Poor Solid Waste Management**

The Vanguard News Paper publication of Thursday January 30<sup>th</sup>, 2014, unveiled a new environmental sanitation policy of 17<sup>th</sup> April, 2012 with the empowerment of the State Environmental Sanitation Authority as an autonomous body and cancellation of contract removal of waste in the Bayelsa state capital. The government which declared a state of emergency on the issue of waste in the state assured that the dirty status of the state capital

would soon change. The new sanitation policy include: the introduction of a new bagging system for refuse, a specific time of between 6-7pm for disposal of refuse at public bins and the setting up of a task force to arrest individuals littering the road with sachet and other waste. The current chairman of the Environmental Sanitation Authority, Chief Ebifemowei Abel, during a sensitization tour of the gathering of professionals, politicians and media practitioners under the aegis of “ The Paliament” in Yenagoa, said the new sanitation policy by the state government was conceived to improve the sanitary condition of the state, even though the new administration in the state met a poor sanitary condition with offensive odour spreading around the state capital. It is not going to be business as usual, and vowed to sustain a system that will ensure that the state capital attain the status of one of the cleanest in the country.

But it is pertinent to mention that, in Bayelsa State, the volume of solid waste have assumed such alarming proportion that some households have turned their backyards and along the roadside as waste bin, where all manner of waste are dumped, without regards for the environment and associated health impacts. The dumping of waste on the river and stream, constitutes a serious problem because the waste has the potential of polluting these water source, which some of the households use for their domestic supply, which have constituted serious, environmental and health impacts, such as air pollution that can cause respiratory problems and other adverse health effects as contaminants are absorbed from the lungs in to other parts of the body. Adelegan (2001), also opined that inadequate, improper sanitation and poor solid waste management remain to be the main transmitters of diseases in the world’s developing countries like Nigeria.

Although the relationship between solid waste and

disease is difficult to prove, however improper handling of solid waste is a health hazard and causes damage to the environment. The main risk to human health arise from the breeding of vectors, primarily flies, and rats, which acts as a transmission route of some diseases such as bacillary dysentery, amoebic dysentery and diarrhea to human through contaminated food and water (Rao, 2006). In addition hazardous wastes are injurious to human health, some have acute effects, while others pose a health hazard after prolong period of exposure. Improper disposal of such waste can result to the death of humans and animals through contamination of crops and water supply sources. The environmental damage caused by solid waste is mostly aesthetic in nature. Uncontrolled dumping of urban waste destroys the beauty of the state capital, produce bad odour and could cause serious flooding if allowed to block drainage channels. A good example is the 2012 flood that affected the entire state, which was made worst by the blocked drainage and canals that impaired free flow of water, resulting to stagnation/ flooding.

Waste when left unattended for a long time constitutes serious hazard, causes offensive odour, pollutes underground water sources and decreases environmental aesthetics quality. Also leachate from waste disposal dumps can pollute both surface and ground water sources, which could constitute a serious health challenge to man (Ohwo, 2011). Furthermore, uncontrolled burning of open dumps can cause air pollution, increase greenhouse gas emission, which contributes to climate change. According to Ogadimma (2011).The type of waste and the method of its collection and disposal within the society have negative impact on the climate through the emission of gases. The management or mismanagement of solid waste in the cities does not only predispose them to natural disasters as a result of climatic change, it actually leads to climate change through the emission of dangerous gases to the atmosphere.

In fact, in most State governments, Bayelsa state inclusive, do not have a well structured refuse collection and disposal system on ground to proactively handle the management of waste within the capitals alone not to talk of other major cities in the state. In Bayelsa , garbage is collected by either government agency or private refuse collectors. Sometimes these private collectors lack the equipment and capacity to handle the waste generated in these areas leaving the public to suffer the health hazards such polluted environment portends. The waste burden has indeed become critical with products often containing materials that are toxic and not readily biodegradable. Such material include: various types of industrial chemical wastes, which can contaminate soil and underground water sources indefinitely, if not properly disposed. Biomedical waste from health care institutions also contains infectious/ hazardous materials

that can pose potential hazards to the environment and human health, when not properly disposed. The improper handling and disposal of medical wastes is a major threat to refuse collectors and scavengers, and can result in infections such as HIV/AIDS, Hepatitis, Tetanus, and cholera among others, (Prerera, 2003). According to Bodija and Oluyole (2004).Upgrading the coverage of modern waste disposal system and services and increasing their efficiency is a precondition for improving the environmental quality of the urban centres.

### **The Need for Environmental Education, Awareness and Public Participation**

According to Emeribe (2000).Environmental education is necessary for improving environmental quality. Much of traditional solid waste management practices such as waste burning, indiscriminate open dumping of waste, ecological ideals and government regulations often arouse conflict. Enlightened debates, public awareness and even outright opposition can promote a forum for dialogue and conflict resolution which can lead to balanced policies, which will enhance public commitment. Such a system that involves peoples participation is democratic. A better understanding of solid waste management and its attendant problems will enhance the effective use of the environment. Although people are capable of influencing their environment in both constructive and destructive ways, yet, much of the influence has been in the service of making the environment less attractive and unhealthy.

People are depleting natural resources and polluting the environment at an alarming rate and it is, therefore important to educate people better in order for them to have positive attitude, commitment and motivation to adopt sound techniques in managing their waste products. According to Emeribe (2000), environmental education and awareness among decision makers will considerably help in a better integration of environmental issues, such as integrated solid waste management practice that can help in disease prevention and sustenance of healthy environment.

### **CONCLUSION**

To achieve the goal of disease prevention and healthy environment in Bayelsa State, it requires efficient management of solid waste. Therefore the need for an adequate waste management strategy in any community or state capital cannot be over emphasized, because inadequate waste management has its associated negative impact on the environment and human health. Solid waste management in Bayelsa State requires the concern of government, businessmen, politicians,

religious organization, civil servants, men, women, literate, illiterate, the rich, the poor and host of other groups, to attack vigorously the urban waste problems. Thus, the goal of disease prevention and sustenance of healthy environment requires careful attention to the environment which include proper management of solid waste.

## RECOMMENDATIONS

In view of the hazards attached to poor solid waste management; the following recommendations are made:

1. Solid waste management should be provided in the yearly budget with a separate head for the purpose of adequate revenue allocation, implementation and monitoring.
2. Enlightened debates, public awareness campaigns through, television and print media, via the chiefs, community leaders, local government and state government and even outright opposition can promote a forum for dialogue and conflict resolution, which can lead to balance policies, and enhance public commitment.
3. Public and private partnership should be highly encouraged to participate in effective solid waste management, to aid disease prevention and sustenance of healthy environment.
4. Bayelsa State government should commit itself to sponsoring more research projects into the reduction of solid waste at source, collection and efficient disposal.
5. There should be comprehensive environmental legislation that relates to environmental sanitation offences. The cases should be tried in environmental courts.
6. There should be adequate and proper town planning for effective solid waste management for example, there is need to provide good access roads, which should be properly linked to one another, and good drainage systems to ease the evacuation of solid waste from all the nooks and crannies of the state.
7. Bayelsa State Government should step-up its commitment to waste management by adopting an integrated waste management approach in the communities. through the provision of adequate waste management infrastructures, education of the masses on the dangers of indiscriminate waste disposal and the practice of waste reduction, reuse and recycle methods of waste management.
8. The central dump site should be in an isolated area, well fenced to avoid nuisance to passersby and curtail the attraction of micro- organisms feasting on the debris
9. Efforts should be geared towards the use of scientific techniques to develop appropriate technologies for dealing with solid waste management, such as encouraging the emergence and development of industrial ecology where wastes from one activity are

impute of raw material for another activity.

10. All primary, secondary and tertiary schools curricula should inculcate detailed topics on environmental health education such as solid waste management.

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