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Towards Sustainable Housing: Waste Management in Informal Settlements in Masvingo City, Zimbabwe

Average Chigwenya and Prisca Simbanegavi

Abstract

Urban informality is fast becoming a permanent feature in cities not only in the global South but also in the global North, hence the need to include it in the delivery systems of the city for sustainable urbanity. However informal settlements are left out in the service delivery systems of cities and this has created spatial deprivation in the city. The exclusion of urban informality is not only a denial of their right to the city but also a denial of environmental justice to these people, which also constitute unsustainable housing. Including informal settlements in the urban fabric will result in sustainable housing because the housing delivery is very important in attaining sustainable development goals. All cities therefore need to provide its services to all the city inhabitants for inclusive and sustainable city. Informal settlements demands safe and liveable spaces for their well being and the sustainability of the city. Effective waste management in informal settlements does not only reflect the inclusivity of the city but is also an important pillar for sustainable city. The research used a mixed methods approach to data collection, where both qualitative and quantitative methods were used to collect data. The research find out that informal settlements in Masvingo city are excluded from the waste collection services and this is imposing an impending danger to their lives because of life threatening environments that surround informal settlements.

Keywords: informal settlements, waste management, inclusive cities, sustainable cities

1. Introduction

Informality has been growing in cities; not only of the Global South, but even in the Global North [1]. As a result, informality has become a permanent feature of urban development. Urban informality has actually developed to be the form of urbanisation in many cities [2]. This, therefore, calls for the integration of the informal sector into the main stream development of cities. This inclusion will lead to inclusive and sustainable cities. Slum settlements are lacking a lot of services and this is against the sustainable development goals, which seek to reduce the number of people living in slums by 2030. Informal settlements have grown in magnitude in cities of the global South but services such as sanitation

and waste management are severely lacking thereby exposing them to life threatening environments. People in informal settlements are living in epicentres of diseases outbreaks and this weighs heavily against city sustainability [3]. Informal settlements are playing a critical role in the provision of housing to the low income urban dwellers and this provides urban resilience and sustainability. So city authorities should take it upon themselves to provide services to these otherwise neglected spatialities for sustainable housing. Excluding informal settlements in the delivery of services creates spatial deprivations, which does not auger well with sustainable housing. Sustainable housing aims to improve the quality of housing through slum upgrading and provision of services that will lead to safe and liveable spaces in informal settlements, [4]. Waste management is one of the important services that should be offered by the city authorities and it should be enjoyed by every resident as a way of giving them their right to the city. This chapter examines waste management in the informal settlements and its impact on the hygiene of spaces occupied by the informal settlements and the city at large. It analyses waste management practices in the informal sector and evaluates its implications on people's right to the city and sustainability of housing in the informal settlements. Waste management in the informal sector has different ramification on the city's general hygienic conditions and also reflects the inclusivity of the city in terms of how the services are spread to the diversity of urban inhabitants. This research is important in the sense that it contribute to the growing literature on the sustainable housing in cities. It examines sustainable housing from the informal settlements.

2. Urban informality and neo-liberal policies in Masvingo

The growth of informal activities in cities of the global South is associated with a lot of problems, most of which are to do with the management and delivery of services. In most cases the informal settlements are found in areas where city services do not reach, as a result most informal settlements are living with minimum or no services. This neglect is usually a result of neo-liberal urbanisation policies pursued by cities especially in the global South. There is a general obsession for clean cities that appeal to international standards and as a result urban informality is regarded as urban filthy, which needs to be eradicated, [5, 6]. Most cities are therefore trying by all means to portray cities without urban informality because of these neo-liberal urbanisation processes. These neo-liberal urbanisation policies are therefore responsible for marginalisation of informal settlements in the delivery of services in cities of the global South. Contemporary cities have developed to be highly diverse and this call for rethinking in the way cities does their business. The urbanisation of poverty in many cities calls for new ways of managing cities because cities can no longer afford to do business as usual, [2, 7, 8]. Cities of today cannot afford to develop without urban informality, hence there is need to integrate urban informality in the delivery of services and the development of the city for sustainable cities. Urban societies in most cities of the global South are however managed by rigid regulatory frameworks that take very long to reform in order to accommodate new land uses that are coming up due to urbanisation of poverty. Urban informality is a reality in contemporary cities, which therefore requires a paradigm shift in the way cities are managed in order to create sustainable and liveable cities. Creation of safe and liveable spaces in informal settlement is a critical component for sustainable housing and the general city sustainability. There is need to provide quality housing to people in the informal settlements, where their living conditions are improved socially, economically and environmentally. Neo-liberal urbanisation

policies therefore do not suit cities of the global South, which have high prevalence of poverty. Most of these neo-liberal urbanisation policies are adopted from cities which do not have the experience of urban informality hence they do not provide for urban informality, [9, 10]. For example Zimbabwe has borrowed the engineering type of planning from the British type of planning and this planning approach does not tolerate any unplanned activities such as urban informality, [9]. However urban informal settlements are growing despite efforts worldwide to reduce by half people living in slums. By 2018 people living in slums had increased to 24% and these settlements are lacking critical services such as water, sanitation waste management that will allow them access to safe and livable spaces, [3]. The lack of such important services does not auger well with sustainable housing as it force people in informal settlements live in hostile environments.

2.1 Impacts of neo-liberal policies on waste collection in informal settlements

In the city of Masvingo informal settlements have been without was waste management services and this has created unsafe living conditions. They have been excluded from receiving such services and their areas are characteristically unhygienic and filthy. Waste has been thrown away indiscriminately in informal settlements thereby creating spaces that are prone to disease out breaks. Waste is dumped everywhere including road sides, open spaces and river banks. The **Table 1** below shows frequency of waste collection in informal settlements in various slum areas in Masvingo city.

The growth of informal settlements in cities of the global South requires a paradigm shift in the way cities are managed. There is need for inclusion of informal settlement in the city wide service delivery systems for inclusive cities and sustainable housing. The growth of informal settlements has however not been complimented with reforms in the regulatory framework, which had remained rigid and unaccommodative to urban informality in the delivery of services. Informal settlements have remained outside city's service delivery systems and this exclusion is not good for inclusive and sustainable cities. Informal settlements have therefore remained illegal settlements, which do not warrant access to services. As a result service provision in most areas occupied by informal settlements is non-existent. These people have therefore never been afforded their right to the city especially their right to receive city services for safe and liveable spaces. Informal settlements have in most cases been found on margins of the city where city services rarely reach, [11]. Informal settlements are commonly found in ecologically deteriorating spaces, [12].

One of the issues that the cities of the global South have been trying to grapple with is the rapid urbanisation and the failure by the formal sector to respond to the problems that are associated with this rapid urbanisation especially issues to do with creation of employment and provision of shelter. Cities of the global South have been failing to address issues associated with urbanisation of poverty especially in

Area	Frequency
Mucheke	No collection
Garikai	No collection
Mudhadhadha	At last once a month

Source: Survey 2021.

Table 1.
Waste collection frequency in informal areas.

the housing sector where people in informal settlements have been experiencing exclusion and living in bad environments, which threaten their lives, [13]. This exclusion is mainly due to their planning systems that have failed to respond to the changing urbanity that calls for inclusion and adaptive planning that suit existing environments in cities. Urban informality is a reality in cities of today, which call for their inclusion in the city's service delivery systems, [5, 8]. The urban poor and their ways of living have always been left out of the city provisioning systems and this is a denial of their right to the city. According to Lefebvre [14] every city inhabitant has the right to receive city services that will allow them access to safe and live-able spaces.

2.2 Poor waste collection and livability in informal settlements

The city of Masvingo has been found to be struggling to embrace informal settlements in their service provisioning systems. Waste collection in informal settlements in Masvingo as highlighted in the table above is nonexistent; hence the people in the informal settlements are living in life threatening environments. Most of the informal settlements in the city of Masvingo are close to formally planned areas, these areas are not receiving services that are enjoyed by the former land occupiers. For example Settlements behind Mucheke bus terminus is less than 20 meters from the formally planned R section of Mucheke but this areas has never received waste collection ever since. The Garikai informal settlement is between two formal settlements of Runyararo West and Victoria Ranch but there is no waste collection in the area. Trucks that collect waste in these formal areas actually pass very close to this informal settlement to the dumping site but they do not collect waste in the area. The informal settlements are therefore excluded in the waste collection services in Masvingo City. This is not sustainable because sustainable housing calls for safety, inclusion and resilience in cities, where there are safe and affordable housing, [15]. Smets and van Linder [15] further argued that sustainable housing should see upgrading of slum dwellings and creation of housing that withstands natural disasters. The case in Masvingo however does not show anything towards the direction of sustainable housing. There are informal settlements that are very close to Mucheke River and these people suffer a lot during the winter season as they are exposed to very cold conditions. Their houses are made of collected waste materials such as plastics and cardboard boxes, which cannot withstand cold conditions. In case of any flood they are the first victims as they are less than 10 meters from the river bank. These spaces are also their work spaces, where they make their livelihoods. As a result there is a lot of waste that they are producing especially the burning of rubber for collection of wire for resale. This waste is just thrown away indiscriminately and most of it is washed into Mucheke River. This creates further environmental problems as it contaminates the water bodies that supply water to the city. The water in Mucheke River is heavily polluted and the water is now blue-black in colour showing heavy pollutants. The washing away of these wastes into Mucheke River is also affecting the aquatic life in the river because the heavily polluted water is now unable to support aquatic life. Plate 1 below shows a heap of waste that is dumped in the Mucheke River banks. The heap is composed of an assortment of waste which include dippers and other degradable waste. When rain comes all this is washed into Mucheke River thereby polluting the water. There is need for proper waste management so that the environment is protected (**Figure 1**).

One of the respondents in the informal settlement said that there river can no longer support any life. He actually said ...

'... we used to fish in this river but nowadays we cannot because we no longer can catch any fish in this river...'



Figure 1.
Waste dumped in Mucheke River bank.

The river can no longer absorb the pollutants that are being washed into it and this is no longer sustainable. If there was proper collection of waste in the informal settlements this would have minimised the amount of waste washed into the river. The pollution of the environment therefore constitutes unsustainable housing in Masvingo City. Asked why the city is not providing waste collection in informal settlement the city authorities said that there is no provision in the city by-laws and to provide services in the informal settlements. They said:

‘..Informal settlements are outside the city’s jurisdiction therefore they do not provide our services...providing services will mean legalising the illegal...’

This exclusion is therefore a result of city regulatory framework that has remained rigid and failed to accommodate new land uses that are coming up as a result of urbanisation of poverty such as informal settlements. Their service delivery system is mainly for the traditional land uses that are provided for by the Regional Town and Country Planning Act. Informal settlements, which are new land uses that are coming up due to urbanisation of poverty, have therefore remained outside the city’s provisioning system of the city. This does not auger well with sustainable housing which calls for inclusion and creation of ecologically friendly environments, [13, 15]. Sustainable housing calls for inclusivity in cities where all city inhabitants are included in the city’s governance system and provisioning systems. Exclusion of informal settlement in the waste management services creates life threatening environments for people in the informal settlements and this is not sustainable. Environmentally unfriendly conditions are not only dangerous to the people in the informal sector but can also affect the whole city as it can expose the whole city to disease outbreaks. If one sector of the city is not healthy, it impacts negatively on the sustainability of the whole city. In order for the city to be sustainable it should be able to cater for the marginalised and vulnerable groups of the city [16, 17]. Failure to provide services to the marginalised groups also does not auger well with environmental justice, which calls for every citizen, including even the marginalised groups of the society to enjoy the same environmental goods and bads of the city, [17, 18]. If some sectors of the city experience too much environmental bads it is not sustainable. Every city inhabitants should enjoy the same degree of protection from environmental and health hazards, [19].

The need for safe and liveable spaces for the informal settlements is often neglected in many cities as many people in slum settlements are lacking a lot of services, which expose them to disease outbreaks [3]. Cities are marginalising people in the informal settlements in the provision of services resulting in the poor housing in the informal settlements, [20]. Cities prefer to deliver services to the formal sector rather than

the informal sector and this does not auger well with dictates of rights to the city and environmental justice, which calls every city inhabitant to have the same right to receive city services as basic needs [19]. The city of Masvingo therefore has been failing to offer waste collection services in informal settlements as shown by **Table 1** above and this is environmental injustice perpetrated on informal settlements.

In contrast formal areas such as City centre, Mucheke high density areas, Industry and Rujeko high density areas are receiving waste collection services on average 5 times a week, while other areas such as the Mucheke bus terminus is receiving waste collection nearly every day including weekends. However such services are not extended to informal settlements and hence waste is indiscriminately dumped all over their areas, which create environmentally unfriendly conditions. Such conditions threaten their quality of life as bad environments reduce innovation and life expectancy [13]. The **Table 2** below shows waste collection schedule in formal areas. The table shows that there is strong bias towards formal settlements than the informal sector in their delivery of waste collection services in the city of Masvingo and this does not auger well with the dictates of environmental justices, which calls for fair distribution of environmental bads and goods in the city.

There is discrimination against informal settlements in terms of waste collection and this does not auger well with environmental justice and sustainable housing. This exclusion is also a denial of the people in the informal settlements' right to the city. According to the theory of right to the city, every city inhabitant has the right to receive services from the city, [14, 21–24]. Therefore the practice obtaining in the city of Masvingo where people in the informal settlements are sidelined in waste management is not sustainable. Adamec et al. [12] argued that sustainable housing should fight social isolation and promote inclusivity in the city, where all city inhabitants are treated the same and afforded the same quality of housing. The exclusion in waste management services creates poor environments in spaces occupied by informal settlements, which usually results in elevated risk of contracting diseases, [3]. The deprivation of waste management services in informal settlements also creates hostile environments characterised by high prevalence of disease causing agents. This then calls for inclusion of informal settlements in the delivery of waste management services for sustainable city.

The Masvingo city has remained against informal activities despite the wide prevalence of informal activities in the city. Urban informality in the city of Masvingo constitutes more than 80% of the [25, 26], but the city is doing nothing to integrate informality in their mainstream economy. The city up to now does not have a policy on urban informality, a thing that is hindering the growth and development of urban informality in the city. Issues of urban informality are still being dealt on a piece-meal basis without any comprehensive plan. The city does not even have by-laws that deal with urban informality and worse it is still being managed by

Area	Frequency
City centre	5times a week
Mucheke high density residential area	5 times a week
Industrial area	4 times a week
Rujeko high density residential area	5 times a week
Mucheke bus terminus	6 times a week

Source: Survey 2021.

Table 2.
Frequency of waste collection informal settlements.

outdated colonial statutes that were promulgated when cities had no experience of urban informality. These statutes do not recognise urban informality as a legal land use hence they remain illegal settlements and activities. However nowadays urban informality is a permanent feature of contemporary cities, which calls for integration into the city wide system for sustainable development. This therefore requires a more flexible management system that is adaptive. Cities of today need to adopt adaptive planning that takes into account the realities of their cities. UN-Habitat [7] argued that cities need not to do business as usual but they have to react to the different realities that are obtainable in their cities. The urbanisation of poverty requires a paradigm shift in terms of how cities manage their situations, [2, 5, 8]. The rigid regulatory systems in most cities in the in sub Saharan Africa has forced people in informal settlements to live with minimum services and are mostly confined in areas without important services, [27]. Kamete [27] further argued that people in the informal settlements are always found in spartialised enclaves where the rights of the inhabitants are completely stripped off to resemble people in a detention camp. Cities do not have budget for provision of services in the informal settlements and as such the rights of these people to receive services from the city authorities is highly dramatised [6]. This has resulted in most informal settlements living in conditions that are sub-human and this is contrary to the provisions of environmental justice which calls for fair distribution of environmental goods and bads.

2.3 Initiatives taken by informal settlements to manage waste management in Masvingo City

The people in the informal settlements in the city of Masvingo are trying to do whatever they can to create better living conditions in areas they are stay. They are employing various initiatives to clean their areas and these initiatives which include burning of waste, recycling material or just heaping waste outside their working spaces. **Figures 2–4** show some of the ways that the people in the informal settlements were using to manage their waste.



Figure 2.
Burning of waste at Garikai informal settlement.



Figure 3.
Open dumping of waste in open spaces in and around the city.



Figure 4.
Recycling of metal waste in Mucheke.

The pictures above show the rudimentary waste management practices that are undertaken by the people in the informal settlements in Masvingo city. These initiatives are attempts to keep their environments clean and reduce the threats that are associated with unclean environments.. These methods are however rudimentary hence are likely to cause further environmental damages in the city. For example method such as burning is likely to create green house gases that damage the ozone layer thereby exacerbating problems of climate change. The heaped scrap metals in Mucheke are too close to the residential (less than 8 m) and can be home to disease causing agents such as mosquitoes and rats. One of the respondents in the informal

settlements said that the heaped metal are home to mosquitoes, rats and even dangerous animals such as snakes hence they live in constant threats of danger. He said:

“...mosquitoes give us sleepless nights during rainy season and rats are a big problem again due to these heaped metals..”

The people in the informal settlements in Masvingo city are therefore living in environments that continuously threaten their lives due to the waste that surround their areas. They therefore live in environments that keep them vulnerable to disease outbreaks [28]. Wilkinson further argued that the environments in informal settlements are severely curtailed by poor waste management, which is often done in streets, which in turn escalates their risks of disease contamination. Poor waste management practices are not sustainable as it pollutes the environment and expose people to diseases. Failure to provide waste management services to the informal settlements does not only expose people in the informal sector at risk of disease outbreaks but the whole city thereby affecting the sustainability of the whole city. For example during the outbreak of Cholera in 2005, the R-Section of Mucheke was severely affected and this put the whole city at risk of contamination.

Masvingo city needs to recognise informal settlements as an alternative and viable housing option and extend their services to their areas for the sustainability and inclusivity of the city. They need to incorporate these informal areas into the city's planning systems and provide services to them so that they improve the living conditions in these slum areas. This will reduce social injustices and also improve the inclusivity of the city, which will result in sustainable housing. Masvingo city like any other city in the global South need to adopt pro-poor development initiatives that are tailored to improve the conditions of the marginalised groups of the society, However Masvingo City still believes in neo-liberal development intervention, where elitist planning approaches are used and the net effect is the marginalisation of urban poor. Most city services therefore do not reach informal settlements and this is a denial of these people's right to the city [7, 18, 27]. Denying the people in the informal settlements good quality living conditions is also a denial of environmental justice and right to the city. Fisher et al. [29], argued that environmental justice aims to deliver among other things access to city services for better, safe and liveable spaces. Right to the city is a right that is offered unselectively but each every city inhabitant has to enjoy it and special attention should be given to marginalised groups of city who should be prioritised in giving city inhabitants their rights to the city [21, 23, 24, 30, 31]. When the marginalised people of the society are included in the development initiatives of the city, this will result in sustainable development [16]. Environmental injustice often experienced by the urban poor are a result of unfair distribution of environmental bads and goods where the urban poor are forced to live in areas characterised by vulnerable ecological environments due to poor services but the most affluent groups of the city are the only ones that enjoys the environmental goods [18, 32]. The environmental threat that has been caused by poor waste management in the informal settlements should be a wakeup call to the city authorities of Masvingo city to try and plan for waste management service delivery in the informal settlements because it has a strong bearing on the sustainability of the whole city. Environmental management is very critical component in the sustainability of the city hence Masvingo city should device environmental management systems that cater for every city inhabitant including people in the informal settlements. **Table 3** sumerises some of the initiatives that are employed by the people in the informal sector to create safe and livable work space.

Recycling is the most popular way of waste management in informal settlements in the city of Masvingo. Most informal settlements are associated with livelihoods of the poor hence their spaces are characterised by a lot of waste from their livelihoods. Most of this waste is recycled for sale or reuse. Most of the scrap metal is

Initiative	Percentage
Burning	13
Just through waste way	36
Recycle our waste	51
Total	100

Source: Field Survey 2020.

Table 3.

Initiatives taken to manage solid waste in informal settlements in Masvingo City.

recycled for sale to scrap metal dealers in the city. Plastics are also recycled for sale to plastic dealers and in this way they are making their places cleaner and environmentally friendly surroundings. Recycling efforts are good local initiatives in the reducing waste in areas settled by urban informality because it forms bottom-up initiatives that are more sustainable than top-down [20].

2.4 Including urban informality for sustainable housing

The initiatives taken by the people in the informal settlements to help in the management of waste is therefore a very noble initiative that can be adopted by Masvingo city for sustainable waste management. The city can support these initiatives by providing protective clothes and availing simple machines that are affordable to the urban poor, [33]. Asibay *et al.* [33] further argued that there is need to create synages between the people in informal settlements and city authorities for effective participatory waste management in informal settlements. Participatory waste, management approaches provided an opportunity for integration and inclusion of informal settlements into the city-wide development interventions [34]. The inclusion will therefore lead to sustainable housing, because sustainable housing promotes inclusivity, [12, 15, 35]. These participatory initiatives could also be supported through injecting financial resources that will see informal settlements being included in city budgets for collection of waste. Such initiatives will result in inclusion of informal settlements in waste collection services of the city and this will go a long way in creating safe and livable spaces in the informal settlements. Participatory waste management practices are also a sustainable way of managing the environment in the city where there is promotion of locals in the management of waste. The people in the informal sector can be critical players in waste management and their participation in waste management is an essential component of sustainable development, [34, 36]. Hahn [36] further argued that there are great opportunities in involving the urban poor in development initiatives but these opportunities are often neglected and this has resulted in unsustainable development. Such participatory approaches in waste management are glaringly missing in the city of Masvingo because they city is not supporting local initiatives in waste management. This is therefore not sustainable because sustainable development gives that all the people the chance to contribute their ideas in development [22, 23]. The people in the informal settlements in Masvingo city have initiated a lot of initiatives to address problems of waste management in their areas but these initiatives are not complimented by the city of Masvingo, hence they have remained rudimental and ineffective. For example the city can come to collect all the waste that has been heaped at various points and transport it to dumping site, or even build communal waste collection centers in informal settlement for collection of waste generated in informal settlements. These centers will collect waste in the informal settlements that will later transported to designated dumping sites by the city. Such partnerships

will help to create safe environments not only for the people in the informal settlements but also for the city as a whole. In addition such efforts will go a long way in giving the people in the informal settlements their rights to environmental justice and access to city services [29].

2.5 Waste collection in the formal and informal settlements: a comparison

As already alluded above, there is no waste collection in informal settlements but formal settlements are receiving these services nearly every working day of the week. Such discriminatory practices are not sustainable and does not auger well with environmental justice, which calls for equitable environmental treatment of all city inhabitants. There should be equitable share of environmental ills and risks in the city in order to achieve environmental justice [17]. However the urban poor are always found in environmentally hazardous places and this place a special burden on them because the poor environments add a cost on the way they do their business [13]. Environmental justice calls for reduction of environmental ills and elimination of all environmental threats that harm people [37]. Schoenfish and Johnson [37] further argued that environmental justice is for all citizens and environmental discrimination exposes the discriminated people to high risk of harm. Reduction of such risks will go a long way in improving the lives of urban poor who always find it difficult to access important city services or are working where important services are inadequate [38]. This does not auger well with the dictates of sustainable development, which calls for poverty alleviation efforts among the poor through improving their living conditions. Environmental justice is a right for all to be protected from environmental degradation and advocates for every citizen to live, work and play in healthy environments [18, 37]. This is again critical for sustainable development as it allows for social inclusion and social justice [12].

There is a big disparity in service delivery between formal and informal sector in the city of Masvingo. There is preference of the formal than the informal sector and this is a direct violation of people in informal settlements' right to the city and environmental justice. Rights to the city calls for all the city inhabitants to be accorded the same treatment in terms of service provision [14, 24]. Coggin and Pietersen [39] argued that such discriminatory practices divide the city between the propertied and privileged on one hand and the property less and the underprivileged on the other and this is not good for a sustainable city. Cities of the 21st century should celebrate urban diversity where all city inhabitants are given equal treatment [30, 31]. Coggin and Pietersen [39] further argued that rights to the city promotes inclusivity in the city, it endeavours to dismantle all structures that produces exclusionary practices in the city and this will create sustainable cities. The city of Masvingo therefore needs to acknowledge and recognise people in the in formal settlements as citizens of the city and provide the important services that will lead to safe and liveable spaces. Denying them waste collection services is a denial of their rights to the city and is not sustainable because it excludes other section of the city in waste collection services. The wide spread urbanisation of poverty in contemporary cities call for paradigm shift in the way cities do their business. It calls for inclusion of urban poor in the development interventions of the city [21–23]. The city is not only for the propertied people of the city but it is also for the poor [5]. Contemporary cities are now political collectivity and a place where public interests are defined and realised, which means that the interests of all city inhabitants should be observed [22, 23, 30, 31, 40]. Failure to embrace urban diversity is usually a result of insistence on old and rigid regulatory frameworks that are failing to realise the realities in their cities [2, 8]. Roy [8] further argued that the diversity in cities of today calls for a new planning theory that realises the prevalence of urban poverty and plan for it. Cities of today cannot afford to develop without urban informality because this phenomenon

has developed to be a permanent feature of urbanity [5]. Urban policies need to reform so that they embrace the new forms of urbanism, which are coming up as a result of urbanisation of poverty [2, 7, 8, 41]. The rigid urban planning policies with their deep entrenchment in neo-liberal urbanism have failed to cater for new ways of life that are coming up in cities as a result of urbanisation of poverty [10, 30, 39]. These traditional planning systems have long been overtaken by events of 21st century urbanism, which call for flexible planning and inclusion of all city inhabitants in the development of the city. These new land uses such as the informal activities need to be included in the provisioning systems of the city so as to allow them to enjoy urban life [14].

3. Conclusions

Informal settlement in Masvingo city has been left out in the waste management system of the city and this does not auger well with sustainable housing. They are living without important services such as waste collection and this is not sustainable. Waste is indiscriminately dumped in open spaces, roadsides and river banks and this is polluting the environment. Pollution of the environment does not constitute sustainable housing. The water bodies are no longer able to sustain aquatic life as it is heavily polluted. The people are living in unhealthy environments characterised by rudimental waste management practices. Waste collection services are non-existing in informal settlement because the city of Masvingo has not included informal settlements in their waste collection schedule. This has prompted the people in informal settlements to employ rudimental ways of managing their waste. These rudimental ways include, burning of waste, dumping, and recycling. These rudimental ways of managing waste however cause further environmental problems for example burning of wastes exacerbates climate change problems. The local initiatives that are employed by people in informal settlements therefore, are worsening the environmental dilemma of the city. Those that just throw their waste indiscriminately pollute the environment and those that heap waste are creating habitats for disease causing agents such as mosquitoes and rats. This again escalates the threat to safety and liveability of their spaces and is not sustainable.

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