

Assessment of The Effectiveness of The Make Zambia Clean, Green and Healthy Campaign: A Case Study of Zambezi District (Paper ID: CFP/1220/2019)

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Abstract

This study was undertaken to assess the effectiveness of the make Zambia, clean, green and health campaign in Zambezi District. The objectives of the study were to evaluate the level of community participation in the make Zambia clean, green and health campaign, to ascertain the challenges faced in the make Zambia Clean, Green and Health Campaign, to investigate the possible strategies that would curb the challenges faced in the make Zambia clean, green and health campaign in Zambezi District. The study was carried out in Zambezi District, North-western Province of Zambia. The research used both quantitative and qualitative approaches to describe the existing situation. The study targeted the total population of 150 people comprising of 140 Households, 8 Government Institutions and 2 Private Institutions. The study revealed that the make Zambia clean, green and health

*not taking part in the cleaning exercise. Further, the findings revealed that the employee's attendances of the respondent institutions were very poor below (25%) in the campaign and the reasons were lack of tool for cleaning, other commitments and for others Saturday the day of cleaning was the day when they went to church. The study recommends that government should promote the use of the 3Rs which is **reducing** the waste, **reusing** which is the repeated use of items or parts of the item which is still usable aspects and **recycling** which is the use of waste itself as a resource. Further, the Government at district level should enhance sensitization on the clean campaigns and inspections of households, government and private institutions.*

Keywords: Clean, Green and Healthy Campaign.

Cleanliness of the premises residencies and community surrounding still remain a challenge which poses a risk of health of the citizens.

Residential areas and townships had become dirtier than before because of garbage was thrown anyhow. Study revealed that the majority of households (77%) felt the cleaning exercise was the responsibility of the council and as such were

1.1 Background of the Study

A clean and healthy environment is part and parcel of the wealth and quality of life that we all desire for ourselves now and for our children in future. Maintaining the cleanliness is not the responsibility of one person alone but it is a collective responsibility. The launch of 'Make Zambia, Clean, Green and Health Campaign' was aimed at making the cities, towns, villages, public institutions and places clean to improve the health standards of all the people (Chanda, 2018). The campaign urged Zambians to remain committed to embrace, promote and maintain a clean, healthy, safe living and working environment to foster prosperity in the nation.

However, the general cleanliness of the premises, residencies and community surrounding still remain a challenge which poses a risk to health of the Zambian citizenry. Residential areas and townships had become dirtier than before because garbage was thrown anyhow while part of it was used to mend pot holes in the roads that have remain in bad state for a long time.

The effect of living in an unhygienic and untidy environment may lead people to become demoralized and less motivated to improve conditions around them. Waste attracts more waste and lead to less hygienic behaviour in general (Adam, 2006).

Solid waste can create significant health problems and a very unpleasant living environment if not disposed of safely and appropriately. If not correctly disposed of waste may provide breeding sites for insects, vectors, pests, snakes and vermin (rats) that increase the likelihood of disease transmission. It may also pollute water sources and the environment. It is evident that outbreaks of water borne diseases such as cholera and dysentery among others is largely caused by untidy surrounding which have characterized most

Zambian cities and towns today (Phiri, 2018).

According to WHO (2011) Zambia had a first major outbreak of cholera in 1990 and it has continued affecting the country every year. In 2010 Zambia experienced an outbreak of cholera with cases initially recorded in 4 Provinces Southern Province, Lusaka, Copperbelt and Northern Province. A total of 6, 804 cases were recorded and 73 deaths. While in 2018 a total of four thousand six hundred twenty-five (4,625) cholera cases and Ninety-one (91) deaths country wide were recorded (Ministry of Health, 2018).

Banda (2013) the clean campaign in Zambia started after independence. The new government tried to find new ways of keeping the country clean, through the ideology of humanism. The First President Dr. Kenneth Kaunda was keen to have a clean country for a healthy nation. Citizens were expected to clean their houses early in the morning and an inspection was done around 5 AM. Further the government used to provide bins and reliable transport for waste disposal. This used to be done by the councils around the country. The councils had more power as they used to collect enough revenue that enabled them to execute there functions effectively.

The citizens were also cooperative in the sense that they used designated places for waste disposal. This could be probably be attributed to the government's use of force to implement its policies in the one-party system.

In the Third Republic during the reign of the former President Chiluba most of the practices associated to the previous regime such as humanism were abandoned. This included the hygiene and waste management practices mentioned above during the second republic. That had a negative effect on the people's attitudes towards cleanliness and waste disposal.

The amount of waste also started getting out of hand partly because the regime employed a capitalist economic system which encourages industrialization as earlier mentioned and centralizations.

Therefore, the councils also began to lose focus in the sense that they never used revenue they collected prudently and their powers to collect enough revenue were reduced. That enabled them to execute their functions ineffectively.

When the Third President Mwanawasa succeeded President Chiluba the situation continued to be bad. Therefore, he decided to do something about it. In 2007 President Mwanawasa made a declaration that gave birth to the Keep Zambia Clean Awareness Campaign. The aim was to improve the health and living environment for everyone. That was intend to help and facilitate the making of all homes, communities, villages, towns and cities clean.

It was noted that low knowledge levels by many people concerning basic health and hygiene environment not being as clean as it should be.

The Government in 2015 had designated the first Saturday of every month as the official Keep Zambia Clean and Healthy Campaign. That was aimed at reviving the Keep Zambia Clean and Healthy Campaign for a Smart Zambia. All the citizens were urged to set aside the first Saturday of every month for cleaning of premises and surroundings. The pedestrians and all those who were operating from streets were directed to ensure that they disposed of their waste in an appropriate manner as required by the law under Chapter 100 of the Local Government Act Cap 281.

The culture of indiscriminate dumping of waste had contributed to rapid deterioration of the environment adding that by-laws must be enforced

to maintain a clean environment.

The 'Make Zambia Clean Green and Healthy Campaign' was re-launched by President Lungu in 2018.

It was released that the Councils on their own were unable to undertake the cleaning exercise hence the need for collective involvement of all in the cleaning exercise (Nawa, 2015).

All the Government line Ministries, Provincial, District Administration, Local Authorities, Statutory bodies and other Public Institutions were urged to fully participant in the programme.

The Bus Drivers and Conductors were encouraged to continue carrying rubbish bins in the public buses and ensure that none of the passengers in their buses throw litter through the window. They were encouraged to make it a habit to educate their passenger and always empty their bins at the designated sites.

Vendors operating in various areas were challenged to carefully think about safe disposal of pieces of paper, plastics and other unwanted materials in their custody. To keep public places and other areas such as roadsides, drainages and waterways clean. The citizens were challenged to avoid unhealthy habits of spitting in places and everywhere.

It was observed that clean streets, markets, restaurants, houses, stations and other public places would help prevent diseases and make such places pleasant and enjoyed by every citizen. The Make Zambia Clean, Green and Health campaign has the potential if well executed to make the lives of ordinary Zambian better especially if it targets to reduce the risk and vulnerability of hazards in urban and rural communities in Zambia (Musakuzi, 2018).

The campaign can reduce the cost of fighting

perennial water borne diseases as well as resources spent on cleaning cities and towns each time there is an outbreak of such diseases. The Government of Zambia at the beginning of the 2018 spent about K130 million to fight cholera that claimed a number of deaths a large number of which was in Lusaka (Chanda, 2018).

Therefore, the study seeks to assess the effectiveness of the make Zambia Clean, Green and Healthy Campaign.

1.2 Statement of the problem

The overall research problem addressed in this study is that, despite the launch of **'Make Zambia, Clean, Green and Health Campaign'** which aimed at making the cities, towns, villages and public institutions and places clean to improve the health standards of all the people (Chanda, 2018).

The general cleanliness of the premises, residences and community surrounding still remain a challenge which poses a risk to health of Zambian citizenry.

It was evident that outbreak of water borne diseases such as cholera and dysentery among others was largely caused by untidy surrounding which had characterized most Zambian cities and towns (Chanda, 2018).

A total of four thousand six hundred twenty-five (4,625) cholera cases and Ninety-one (91) deaths country wide were recorded in 2018 (Ministry of Health, 2018).

If the citizens do not adhere to campaign the government would continue spending a lot of money every year to fight water borne diseases such as cholera and dysentery which claims a large number of deaths.

1.3 Purpose of the Study

The purpose of this study was to assess the effectiveness of the Make Zambia Clean, Green and Health Campaign in Zambezi District.

1.4. General Objective

To assess the effectiveness of the make Zambia clean, green and health campaign in Zambezi District.

1.5 Specific Objectives

This study was guided by the following objectives

- i. To evaluate the level of community participation in the make Zambia clean, green and health campaign.
- ii. To ascertain the challenges faced in the make Zambia Clean, Green and Health Campaign.
- iii. To investigate the possible strategies that would curb the challenges faced in the make Zambia clean, green and health campaign.

1.6 General Research Question

What is the effectiveness of the make Zambia Clean, Green and Health Campaign in Zambezi?

1.7 Specific Research Questions

- i. How is the level of community participation in the make Zambia clean, green and health campaign by the community?
- ii. What are the challenges faced in the make Zambia clean, green and health campaign?
- iii. Are there any possible strategies that would curb the challenges in the make Zambia clean, green and health campaign?

1.7 Significance of the study

Likando (2017) Significance of the study in the research shows the relevance and implication of the study for researchers, practitioners and policy makers in the country.

In 2007 a declaration was made by President Mwanawasa that gave birth to the Keep Zambia Clean awareness campaign.

The government further reinforced the campaign in 2015 by designating the first Saturday of every month as official Keep Zambia Clean and Health Campaign. That was aimed at reviving the Keep Zambia Clean and Health Campaign for a smart Zambia.

Again in 2018 the Campaign was re-launched and rebranded as the 'Make Zambia Clean, Green and Healthy Campaign by President Lungu.

After all this effort that the government has been making in the past it is important to assess the effectiveness of the Clean Campaign.

It is hoped that the findings of this study has produced information that could be used as reference point for effectiveness of the Make Zambia Clean, Green and Healthy Campaign.

The findings may help in providing information that is practical value to policy makers and planners such as Zambia Environmental Management Agency (ZEMA).

The findings may also help the Local Community to get involved and participate in the make Zambia Clean, Green and Healthy Campaign and reduce the outbreaks of water borne diseases such as cholera and dysentery.

The findings of the research may also contribute to the existing literature on the clean campaigns in the developing nations like Zambia.

1.8 Delimitation of the study

This study was restricted to selected residential areas and residents of the Zambezi District, Government Institutions and the Business Community. The Study sampled respondents from the two residential areas to have balanced views (Riverside – High Cost and Ndeke Compound Low cost) areas of Zambezi District.

1.9 Limitation of the study

The study was limited to selected residential areas and residents, Government Departments and the Business Community in Zambezi due to financial constraints. The study sample may therefore, not be the representative of all the residents, Government Departments and Business Community in Zambia. Therefore, Generalisation of the study findings should be done with caution.

CHAPTER TWO: LITERATURE REVIEW

2.1 Literature related to community participation in the make Zambia clean, green and health campaign.

In Japan, people, business and the central and Local Governments were working cooperatively to establish a sound material-cycle society in which waste was reduced, reusable products were reused and waste was recycled as a resource under Fundamental Law for establishing a sound material cycle society and the Fundamental cycle society and the Fundamental plan for Establishing a sound material cycle society. Mwiinga (2014) Another research done in Tshwane Metropolitan Area by Kamara revealed that the low level of awareness in issues of solid waste translates into a low level of participation in domestic solid waste management, such as sorting, recycling and disposal of domestic waste. The study also revealed that availing waste management services without adequate environmental education may in itself not succeed in ensuring mass participation from the public. These studies brought out the roles of environmental education but did not deal with peoples' perception of Solid Waste Management and the views of people on their roles in Solid Waste Management.

The Nshimirimana study in Cape Town (Tafelsig area) revealed that several impressions of the area were one of urban decay, environmental degradation and social disorganization. The open spaces and green areas, intended for recreation, parks and gardens were observed to be dumping areas for domestic waste. The study focused on existing SWM practices and perceptions of households regarding these practices, Nshimirimana (2004) showed that attitudes of people towards waste management were negative. The Karanja (2005) study revealed that in Nairobi waste management was a problem as waste was found all over urban areas. He states that the main

fractions in the waste comprise plastic bags of all sizes and colours. In Zambia the government urged the individuals, households, institutions, church, civil society and cooperate world to partner with government in promote the make Zambia clean, green and healthy campaign (Mwiinga, 2014).

2.2 Literature related to the challenges faced in the make Zambia Clean, Green and Health Campaign.

Global environmental pollution offers the greatest challenge to sustainable industrial development and the need to meet the requirements of ever increased world population. The major sources of pollution primarily affect three components of our ecological system: air, soil, and water. An increasing number of consumers demand more industrial production units with improved technology to fulfil the requirements of society. Since China has become a large production house on the world map, the environmental conditions in China have been very serious, causing enormous damage to health, and doing social harm, for a long period. In the meantime, environmental and emission policies have undergone dramatic changes in the past two decades, in particular, undergoing a transition from weak to strong implementation. Zambia is becoming more and more concerned with waste management. The most disturbing situation is the increase in the amount of solid waste. Over one million tonnes of solid waste is generated each year in various urban centres in Zambia. For the last two decades waste collection and disposal services had deteriorated to the extent where they were health hazard to inhabitants in Zambia.

Due to poor solid waste collection serious outbreaks of cholera and dysentery had occurred especially during the rainy season resulting in the loss of human lives (Dauchi, 2002).

Further Zambia was also facing the following challenges in implementing the Campaign.

2.3 Literature related to the possible strategies that could curb the challenges faced in the make Zambia clean, green and health campaign.

Banda (2013) Keep America Beautiful conducted many local Public Service Advertisement campaigns early in its history. In 1975, Keep America Beautiful introduced its "Clean Community System" which encouraged local communities to prevent litter through education efforts, advertising, local research, mapping of litter "hotspots", and clean-up activities. During the height of the campaign Keep America Beautiful received over 2,000 letters a month from people wanting to join their local programs.

Ministry of Environment (2005) in Japan, one major premises for the proper functioning of waste management and the 3Rs mechanism is that all the stakeholders act by setting up rules while respecting the purposes of these mechanisms.

After the launch of the Keep Singapore Clean campaign, the government continued to conduct campaigns regularly to instil a sense of responsibility in individuals to keep Singapore clean and to encourage them to bin their rubbish.

Ombis (2017) Kenya's resolve towards this course is beginning to take shape with the enactment of a ban on plastics bags in the country which is expected to take effect in September 2017. This also includes efforts towards minimizing and eliminating unhealthy and unsustainable practices of waste management such as open burning aimed at reducing negative environmental and health impacts caused by such practices to the country.

Ministry of Local Government (2018) in Zambia in order to improve the sanitary conditions of towns and cities the government re-launched the

make Zambia clean, green and healthy campaign with a call to citizens to embrace the initiative.

The MLG through the local authorities had continued to enforce Statutory Instrument No. 12 of 2018 which compelled citizens in institutions to take the responsibility of keeping their premises and surrounding clean. The members of Parliament were urged to partner with the provincial and the district administration by getting involved in mobilizing communities in achieving the objective of that campaign.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

In assessing the effectiveness of the Make Zambia Clean, Green and Health Campaign in Zambezi district, the researcher will employ an approach which will embrace a combination of quantitative and qualitative methods of data capturing and analysis.

3.2 Study Population

The study comprised of the Government and private institutions, Zambezi Town Council, Ministry of General Education, Ministry of Health, Community Development, Social Welfare, Agriculture, Forestry, National Pensions Scheme, Chiseki Enterprise, Mutical Bakery and Households from Zambezi District.

3.3 Sample Size

This study therefore, had a total of 150 respondents which were divided as follows; 140 Households and 10 under listed officers from both Government and private institutions were supplied with Questionnaires. This sample size is commensurate with the population the researcher is interested in

3.4 Sampling Procedure

In this case it was used due to the fact that government and private institutions were purposely selected as they were sensitized by the local authority. Purposive sampling was used to sample, Zambezi Town Council, Ministry of General Education, Ministry of Health, Community Development, Social Welfare, Agriculture, Forestry, National Pensions Scheme, Chiseki Enterprise, Mutical Bakery and Households from Zambezi District.

Table 3.1; Indicating the respondents selected from Residential Areas

Residential Type	Total Housing Unit	Selected Number	Percentage
High Cost (Riverside)	205	60	40%
Low Cost (Ndeke)	300	80	60%
Total	505	140	100%

Source: Field Data, 2019

Composition of the respondents

Respondents	Number of Respondents
Zambezi Town Council	01
Ministry of General Education	01
Ministry of Health	01
Ministry of Community Development	01
Ministry of Social Welfare	01
National Pension Scheme Authority (NAPSA)	01
Ministry of Agriculture	01
Forestry Department	01
Chiseki Enterprises	01
Mutical Bakery	01
Households	140
Total	150

Source: Field Data, 2019

3.5 Data Collection Methods

The questionnaires were administered to collect data from, Zambezi Town Council, Ministry of General Education, Ministry of Health, Community Development, Social Welfare, Agriculture, Forestry, National Pensions Scheme, Chiseki Enterprise, Mutical Bakery and Households from Zambezi District.

3.5.1 Observations Methods

The observation method is another method which was used to ascertain responses especially regarding waste disposal methods and habits in residential areas and a camera was used to capture features appropriate to the study regarding waste collection and disposal methods.

3.6 Data Analysis

Quantitative data was analysed using excel which will help in generating frequency tables and other descriptive statistics for easy interpretation and analysis. While qualitative data obtained from interviews was be analysed using themes and content analysis. Emerging themes were critically and objectively be described, analysed and interpreted. Further, ethical issues were also be taken into considerations by obtaining participants consent and permission from relevant authority. Additionally, the respondents' identities were kept anonymous as a way of enhancing confidentiality and privacy.

3.7 Ethical Consideration

Prior to conducting the research, permission was obtained from the Council Chairpersons at Zambezi Town Council.

This study observed the elements of informed consent mentioned in the definition above. This was done by preparing a letter of consent which ensured that the participant's voluntary participated and their benefit for participating in the study was explained. A letter of introduction also introduces the research and researcher to the participants. It also stated that respondents would not need to reveal their personal identity.

3.8 Limitation of the study

The study will be limited to Zambezi district due to financial and time constraints. This implies that the finding of this study may not be generalized to the entire country.

CHAPTER FOUR:PRESENTATION OF FINDINGS

4.1.0 Community participation in the make Zambia clean, green and health campaign

The study wanted to find out the level of participation of the residents in the make Zambia clean, green and health campaign. This was done in order to find out how effective the campaign was being implemented in the study areas.

Table 4.6: Level of Participation in the Campaign by the Households

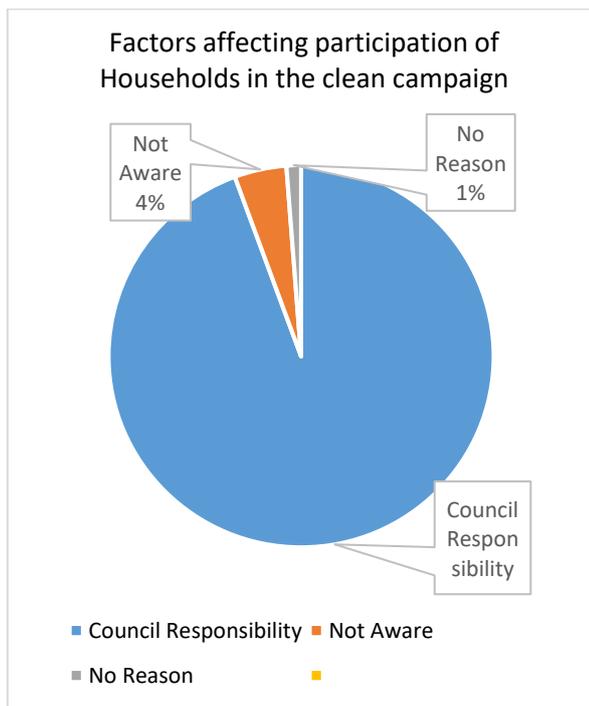
Level of Participation in the Campaign	Frequency	Percentage
3 or More times	4	3%
Twice	11	8%
Once	24	17%
Nil	101	72%
Total	140	100%

Field Data 2019

The results in Table 6 and Figure 2; shows that the 3% of the respondents participated in the cleaning exercise three times or more, 8% of the respondents twice, 17% of the respondents once while 72% never participated in the cleaning exercise at all. The results show that the majority of the respondents (72%) never participated in the campaign because they felt it was not their responsibility and for them to participate, they should be paid.

4.2.0 Challenges faced in the make Zambia clean, green and health campaign

The study had to find out the factors affecting the participations of the sample in the campaign.



The results in figure 5 shows that 77% of the Household respondents said it was the responsibility of the council to clean the surrounding, 19% of the respondents indicated that they were not aware when the cleaning exercises takes place while 4% had no reason at all why they do not participate in the cleaning exercise. The results indicated that it was the council responsibility to clean the surroundings. There is need to sensitize their communities for them to know it was there responsibility and it was their families that were at risk from the diarrhea diseases like cholera.

4.2.1 Waste Disposal Methods

The study wanted to find out how the respondents disposal off the waste they generate from their homes and institutions. The results show in table 9, that 67% of the respondents were disposing the

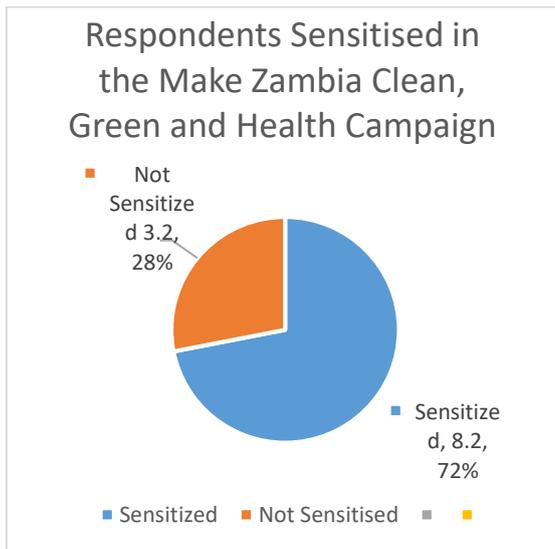
waste by burying in their yards, 14% were collecting after the waste has accumulated burn, while 19% of the respondents were throwing the waste along the roadside in the night. The results show that the majority of the respondents (81%) were burying and burning the waste while 19% were throwing the waste along the roadsides and open spaces in the night due to unlimited spaces in the yards. See picture below showing roadside dumping at the Central Business District.



Picture 1: Roadside Dumping of waste in the Central Business District.

4.3.0 Possible strategies that would curb the challenges faced in the make Zambia clean, green and health campaign

The study had to find out if the respondents were sensitized on the campaign or not. That would be helpful in determining if they were absconding from participating in the cleaning exercise with the full knowledge of the campaign and the exact date when it takes place.



Field Data 2019

The results in figure 9, shows that 73% of the respondents were sensitized on the campaign while 27% of the respondents were not sensitized. That indicates that the majority of the respondents were sensitized and they fully understand the campaign. Therefore, there was need for enforce the campaign by introducing the penalties for those not participating the cleaning exercised during that time.

CHAPTER FIVE: DISCUSSION OF THE FINDINGS

5.1.1 Community participation in the make Zambia clean, green and health campaign in Zambezi District.

The first objectives of the research sought to evaluate the level of participation in the make Zambia Clean, Green and Health Campaign in Zambezi District. The findings of the selected residential areas revealed that the majority of the respondent households (72%) never participated in the campaign.

That was the same scenario with the institution were most of the institutions (70%) participated in the cleaning exercise only once or nil.

Further the findings revealed that employees from the institutions attendance during the cleaning exercise was poor. The majority of the employees were not participating because of lack of tools and protective clothing, other it was due to commitments at work while other Saturday was the day when they went to church. That was contrary to the Japanese Ministry of Environment (2005) where the rapid increase in municipal waste promoted local residents and local governments to work together to sort waste papers and packaging and other items for reuse or recycling, using group based collection life style changes and improvement in the standard of living however brought about a continuous increases as well as diversification of municipal waste.

As it becomes apparent that the effort of local residents and local government alone were insufficient for the proper management of municipal waste, the central government faced the urgent task of creating a mechanism whereby all stakeholders including businesses, local residents and local government cooperated to reduce municipal waste.

In Japan, central and local governments had been playing an important role in the management of municipal waste. The central government has stipulated the management framework for municipal waste and conducts information gathering and utilization, technological development and the provision of assistance to the local governments. Meanwhile the local government had created modern waste collection systems using the know-how which they accumulated when establishing public hygiene mechanism as the amount of generated municipal waste increased sharply during the period of high economic growth in the 1960s. Subsequently both the central and the local government had intensified efforts to modernise sanitation and to implement environmental conservation measures. Modernisation rapidly progressed to treat the rapidly increasing amount of municipal waste in a sanitary manner. Packer trucks were introduced to replace manual collection, starting regular collection. Continuous loading waste incinerators were introduced in addition to batch loading incinerators and further emission control measures were promoted. The sanitary landfill method was introduced together with liner sheets and thorough leachate treatment.

Mwiinga (2014) Another research done in Tshwane Metropolitan Area by Kamara revealed that the low level of awareness in issues of solid waste translates into a low level of participation in domestic solid waste management, such as sorting, recycling and disposal of domestic waste. The study also revealed that availing waste management services without adequate environmental education may in itself not succeed in ensuring mass participation from the public. These studies brought out the roles of environmental education but did not deal with peoples' perception of Solid Waste Management and the views of people on their roles in Solid Waste Management.

In Zambia the government urged the individuals, households, institutions, church, civil society and cooperate world to partner with government in promote the make Zambia clean, green and healthy campaign.

It was emphasized that government should not be left alone to champion that programme, the campaign could only succeed if all stakeholders joined hands with government in promoting clean living. The practice of poor waste disposal was made worse due to failure by some companies in private sector to sensitize their customers on appropriate means of waste disposal particularly packaging materials.

Most of the local authorities were unable to effectively collect and manage waste due to lack of capacity to do so.

The government through the Ministry of Local Government with other line ministries and the private sector were ensuring that every last Saturday of every month was reserved for community work cleaning the premises and surrounding. That was in line with the pronouncement to observe the national Day of service.

In addition, the ministry of local government has requested all the provincial administration and local authorities to spearhead the campaign using various media platforms and identity the cleanest premises to be awarded by the president every year.

The government had also engaged the partners to help implement that campaign by appointing brand ambassadors or champions, mainly from the entertainment and media industries to help spread the behaviour and mind set change. This includes church and traditional leaders.

The local authorities had continued to enforce

statutory instruments No. 12 Of 2018 which compel citizens to take responsibility of keeping their premises and surrounding clean.

5.1.2 Challenges faced in the make Zambia Clean, Green and Health Campaign in Zambezi District.

The findings revealed that the general cleanliness of the premises, residences and community still remained a challenge which posed a risk of health of the citizens. Residential areas and townships had become dirtier than before because garbage was thrown anyhow. The findings revealed that the majority of the households (77%) believed the responsibility of cleaning was for the council.

While the institutions were not providing the tools and protective clothing for their employees to use during the cleaning exercise. Bank of Zambia (2009) by keeping the premises or business environment clean, institutions provide satisfaction that customer need. The business done in a clean environment leave the customer totally relaxed and in good spirit prompting another visit in future. Waste disposal method also posed a challenge to some respondents (19%) of the where throwing garbage along the roadside or open spaces because there was no space in their yards for rubbish pits.

The findings revealed that the majority of the respondents (70%) did nothing when they so the resident throwing litter anyhow. That was because they believed it was council responsibility to provide advice and inspections despite being aware of the problems associated with solid waste.

The finding was in agreement with OECD (2006) Global environmental pollution offers the greatest challenge to sustainable industrial development and the need to meet the requirements of ever increased world population. The major sources of pollution primarily affect three components of our

ecological system: air, soil, and water. An increasing number of consumer's demand more industrial production units with improved technology to fulfil the requirements of society. It is very clear that socio-economic development depends on industrial capabilities or capacities; however, it is also a fact that industrial development is linked with many environmental sustainability challenges. This is the case in many countries with a large population, where better industries to cater the global needs for fertilizers, cosmetics, clothes, home appliances etc. are sought after. In this scenario, it is interesting to analyze how we can maintain a balance between meeting global needs and environmental challenges. In this regards, different States have adopted numerous strategies to meet these basic challenges. In China, various industries legally produce a certain amount of greenhouse gases. However, if an industrial unit manages to reduce air pollution, it can trade or sell the extra pollution allowance to another industry.

Zambia is becoming more and more concerned with waste management. The most disturbing situation is the increase in the amount of solid waste. Over one million tonnes of solid waste is generated each year in various urban centres in Zambia. For the last two decades waste collection and disposal services had deteriorated to the extent where they were health hazard to inhabitants in Zambia.

Due to poor solid waste collection serious outbreaks of cholera and dysentery had occurred especially during the rainy season resulting in the loss of human lives (Dauchi, 2002).

5.1.3 Possible strategies that would curb the challenges faced in the make Zambia clean, green and health campaign in Zambezi District

The findings revealed that the majority of the resp

respondents were aware about the make Zambia clean, Green and health campaign. 139 out of 150 respondents were aware about the campaign and the exact day when the cleaning exercise was being conducted. The findings also revealed that the majority of the respondents (73%) were sensitized about the campaign. That implied the majority of the residents were aware about the campaign and to improve participating enforcement was needed.

That was in line with Banda (2013) Keep America Beautiful conducted many local Public Service Advertisement campaigns early in its history.

In 1975, Keep America Beautiful introduced its "Clean Community System" which encouraged local communities to prevent litter through education efforts, advertising, local research, mapping of litter "hotspots", and clean-up activities. During the height of the campaign Keep America Beautiful received over 2,000 letters a month from people wanting to join their local programs.

The "Clean Community System" evolved into Keep America Beautiful current network of roughly 580 local "Keep My Town Beautiful" organizations nationwide. By the end of the campaign locals had succeeded to reduce litter by 88%.

In 1999 Keep America Beautiful introduced its annual "Great American Clean up" campaign, where volunteers were organized to clean up litter and illegal dumpsites in their communities, remove graffiti, and plant trees, flowers and community gardens (Banda, 2013).

Ministry of Environment (2005) in Japan, one major premises for the proper functioning of waste management and the 3Rs mechanism is that all the stakeholder's act by setting up rules while respecting the purposes of these mechanisms.

Unlike wastewater or exhaust gas, however, the environmental pollution caused by industrial waste at the discharge stage is difficult to identify.

The realisation of sustainable development requires the establishment of a sound material – cycle society in which the consumption of natural resources and the environmental load are reduced. Japan has been attempting to achieve this based on two pillars, promotion of the 3Rs and environmentally sound management of waste.

The efforts of the entire society through the cooperating of all stakeholders are necessary of a sound material cycle society. The Fundamental plan for establishing a sound material cycle society set fourth clearly defined roles for such stakeholders as the Central Government, Local Government, Private Sector, Communities and Non-Governmental Organizations so that these bodies can proceed with their own efforts with a full awareness of their expected roles.

For the provision of the 3Rs as the foundation for the establishment of a sound material cycle society, various approaches are necessary focusing on the increasing awareness, partnerships between various bodies sharing of information technological research development and incentives. Effective linkages between these diverse approaches will achieve multiple or synergic efforts making the effective promotion of these 3Rs possible. Khan (2018) A zero tolerance policy was adopted to address environmental issues and challenges in China. In this regard, national efforts were made to clarify the matter; by taking rational steps, workable and result-oriented strategies to gather and implement the national environmental policies were achieved.

Mwiinga (2014) according to the case study conducted by Ddungu in South Africa revealed that environmental education reduced the problem of solid waste in the central business district of

Thohoyandou. In Kenya the initiatives to tighten the regulations to limit production and usage of environmentally-detrimental plastic bags have also been emphasized. Therefore, fast-tracking sustainable solid waste management system including resource recovery and abandoning of open dumpsites and burning of waste would go alongside in ensuring that better services are implemented in this sector. In Rwanda the last Saturday of every month in the morning people sweep the street of Kigali, the capital City, with straw brooms and picking up stray bits of litter. The President of the Republic of Zambia re-launched and rebranded the programme as a make Zambia Clean, Green and Health Campaign on the 28th April, 2018 in order to provide leadership and commitment in the programme implementation.

The ministry of Local Government with other line ministries and the private sector were ensuring that every last Saturday of every month was reserved for community work for cleaning their premises and surroundings.

5.2 Conclusion

The researcher was motivated to conduct a study because of the efforts the government has been making to promote environmental clean campaign in the past. The purpose of this study was to assess how effectively the Make Zambia Clean, Green and Health Campaign was being implemented in Zambezi District. The findings revealed that employees from the institutions attendance during the cleaning exercise was poor. The majority of the employees were not participating because of lack of tools and protective clothing, other it was due to commitments at work while other Saturday was the day when they went to church. That was contrary to the Japanese Ministry of Environment (2005) where the rapid increase in municipal waste promoted local residents and local governments to work together to sort waste papers and packaging and other items for reuse or

recycling, using group based collection life style changes and improvement in the standard of living however brought about a continuous increase as well as diversification of municipal waste.

As it becomes apparent that the effort of local residents and local government alone were insufficient for the proper management of municipal waste, the central government faced the urgent task of creating a mechanism whereby all stakeholders including businesses, local residents and local government cooperated to reduce municipal waste.

The findings revealed that the general cleanliness of the premises, residences and community still remained a challenge which posed a risk of health of the citizens. Residential areas and townships had become dirtier than before because garbage was thrown anyhow. The findings revealed that the majority of the households (77%) believed the responsibility of cleaning was for the Council.

While the institutions were not providing the tools and protective clothing for their employees to use during the cleaning exercise. Waste disposal method also posed a challenge to some respondents (19%) of the where throwing garbage along the roadside or open spaces because there was no space in their yards for rubbish pits.

The findings revealed that the majority of the respondents (70%) did nothing when they so the resident throwing litter anyhow. That was because they believed it was Council responsibility to provide advice and inspections despite being aware of the problems associated with solid waste. Mwiinga (2014) according to the case study conducted by Ddungu in South Africa revealed that environmental education reduced the problem of solid waste in the central business district of Thohoyandou. The study revealed that in that area, the environmental education desk visited schools, youth clubs and conducted weekly radio talks on solid waste issues. In Kenya the initiatives to tighten the regulations to limit production and usage of environmentally-detrimental plastic bags

have also been emphasized. Therefore, fast-tracking sustainable solid waste management system including resource recovery and abandoning of open dumpsites and burning of waste would go alongside in ensuring that better services are implemented in this sector. In this regard, Kenya's resolve towards this course is beginning to take shape with the enactment of a ban on plastics bags in the country which is expected to take effect in September 2017. This also includes efforts towards minimizing and eliminating unhealthy and unsustainable practices of waste management such as open burning aimed at reducing negative environmental and health impacts caused by such practices to the country.

Recommendations

In order to curb the challenge of solid waste the government should promote the use of the 3Rs which is **reducing** the waste, **reusing** which is the repeated use of items or parts of the item which is still usable aspects and **recycling** which is the use of waste itself as a resource.

The Government at district level should continue to conduct campaigns regularly to instil a sense of responsibility in individual about the make Zambia clean, green and health campaign and encourage them to bin their rubbish. The District Commissioner, Council Chairperson, Ward

Councilors and Traditional and church should be used to conduct this campaign because of the influence they have in the community.

Inspection by Government Officials should be conducted regularly for competition for the cleanest offices, Shops, restaurant, markets, government building, schools, houses and public buses. The results of these should be announced publicly highlighting both the cleanest and dirtiest.

The Public Notices and banners in English and Local Languages should be displayed in public places such as shops, restaurants, offices, bus stations and on the public notices as the reminder to the general public about the campaign.

Police and the Public Health Inspectors to be conducting patrols to advice members of the public against littering. Those who are caught littering to be warned of the penalties during the campaign.

To ensure that good habit is cultivate from young age, children should be a target group of the campaign. Teachers and other officials should be requested to remind pupils not to litter. The schools should also be encouraged to form environmental clubs to promote environmental consciousness and to participate in the public decision making.

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