

SOLID WASTE MANAGEMENT IN MAKERERE UNIVERSITY

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1 Introduction

1.1 Background

Waste is something unwanted but un avoidable for example leftover food, dirty water, plastics and many others .waste can also be defined as anything that is no longer of use to the first user and therefore needs to get rid of.

In Makerere University waste collection and management is under different private companies who are responsible for the proper waste management since they are an important sector in environment as they determine the quality of life of the surrounding communities (WHO).

Wastes are also referred to as garbage, trash, litter, refuse and rubbish in accordance to the different languages used by the people. In Kampala which is the biggest city in Uganda waste is collected and managed by Kampala city council authority(KCCA) that ensures proper waste management and reduce the health risks associated with handling wastes since population is very high and people have the I dont care attitude of throwing wastes everywhere in the city

2 OBJECTIVES OF THE SURVEY

1. To determine the volume required for onsite storage transport ,transfer facilities and disposal of solid wastes.
2. To identify recycling resource recovery potential of solid waste

3. To determine the appropriate methods of collection and disposal of solid wastes
4. To provide solar installation contribute to the energy sector.
5. To estimate the expected life span of the disposal site

3 MATERIALS

MATERIALS These include the equipments used in the survey to collect data from different collection and disposal sites around the university In this survey, I was equipped with pens, smartphone for capturing the images, and notebooks to write and record data .

4 METHODOLOGY

During the survey is basically depended on the observation methods to collect the data and I moved around the collection and few dumping sites around the university

Open discussions were also used whereby after the survey we sat as a group to analyze and edit our findings and made the final table of results and every member contributed generously to our findings.

Interviewing was also done whereby at the collection site behind the main library workers carrying out different activities like sorting and packaging we found at the site .One of workers named Joseph told us about the inadequate equipments like the gloves which predisposes them health risks associated with handling wastes and he also told us about the low wages they get that cannot satisfy their basic requirements

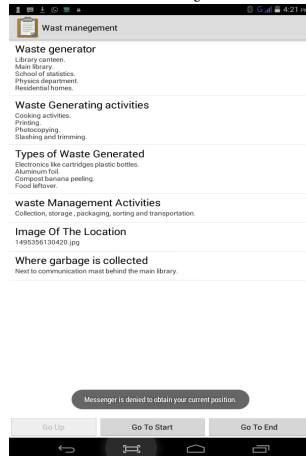
TABLE SHOWING DATA COLLECTED AND THEIR LOCATION				
Location on campus	Waste generator	Waste generating activities	Types of waste generated	Waste management activities
Behind Livingstone hall and Africa hall	Residential homes, people from kikumikumi and college of veterinary medicine	Laboratory experiments, Trimming of shrubs, Cooking at the residential places	Household examples food leftovers ,banana peelings institutional broken glasses,gloves,paper	It is a dumping place and no other waste management activities
Next to the communication mast behind the main library	Library canteen ,Main library, School of statistics	Cooking activities Printing ,Photocopying ,Slashing and trimming	Electronics like cartridges plastic bottles Compost banana peelings,leftover food Aluminum foil	Collection ,Storage,Packaging ,sorting and transportation
Mary Stuart road opposite the forestry building	Centenary bank ,School of forestry,Canteens ,Residential places	Student campaigns Decorations and parties,Cooking Printing and photocopying	Electronics like cartridges plastic bottles Compost banana peelings,leftover food	Collection .Storage,Packaging ,sorting and transportation
Infront of mitchell hall next to mugenyi flats	mitchell hall, canteens,residential around and people passingby	Trimming of shrubs, Cooking at the residential places,canteen around	Household examples food leftovers ,banana peelings	opened burning,Collection .Storage,Packaging ,sorting and transportation
Behind guid of-fice,police station,pharmacy department and adjacent to nrkrumar hall	Nsibirwa hall,Nrkrumah hall,Pharmacy department,Police stationand and Residential hall	Trimming of shrubs, Cooking at the residential places,canteen around	Electronics like cartridges plastic bottles Compost banana peelings,leftover food	Opened burning, Collection ,Storage,Packaging ,sorting and transportation

5 Discusion of the results

From the table it was found out that paper, plastics and food materials are the most common and frequently collected around the university since students and other stake holders do more work on paper and food to sustain the high population in the university.

The waste generation rate is so high due to the high population of the students in the university and this call for regular collection schedules by the responsible collection companies to the disposal site in kitezi landfill. Around the campus we found out that the collection equipments were not enough around the compound surrounding the university and this was evident by increasing rubbish which is thrown in the compound and these can act as breeding grounds for mosquitoes that spread malaria.

Dumping sites behind Livingstone hall and behind the Africa hall needs immediate actions since the places are not illegal collection sites in the university and most of the waste was found to be rotting and flies everywhere predisposing the students and other stakeholders to diseases and the worse of it the laboratory wastes are hazardous like chemicals.

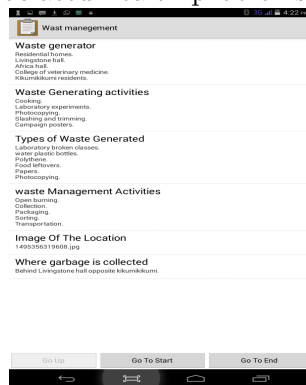


Student campaigns in this political atmosphere also contributed a big percentage of wastes in the university inform of posters and stickers.

6 Recommendations

Establish regular collection schedules in order to cope up with the high waste generation rate in the university to avoid rotting and other associated health problems as result of delayed waste collection.

The dumping sites around nrkrumah hall and mitchell hall needs the should be cleared off wastes and provide other collection equipments at the site and including regular collection of wastes to avoid rotting and other associated health problems.



Establish fence around the collection centers to reduce on waste scattering by the scavengers and others living organisms making it accessible by only the workers since many people urinate around the collection sites.

Putting the wastes into proper use through reuse, recovery and recycling of wastes to create employment and provide raw materials for production of other goods for example tyre threading and crafts from the plastics.

The collection companies should provide coded plastic bags to ensure that wastes are sorted from source to increase efficiency in collection and transportation of wastes to the disposal sites and reduce activities like sorting and packaging

Burning of wastes around collection centre should be avoided as it causes pollution and other related respiratory diseases which was evident at marys-tuart hall and the communication mast behind the library

6.1 Conclusion

From the above discussion of the results in the environmental management is always very important to know well what you intend to manage.

Likewise in solid waste management you should know well the types of waste and the generation rates in order to adequately plan for management
[3] [1] [2]

References

- [1] *Global strategy for housing in the third millennium by WA Allen RG Courtney Pirotta.*
- [2] Spatial aspects of waste management, hazards and disposal by michealclark, denissmithand andrew blowers.
- [3] The treatment and handling of wastes by adbradsha and fredrick warner.