Municipal Solid Waste Management System: A Case Study of Savar Municipality

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ABSTRACT: Due to the Rapid population growth, urbanization, industrialization and rising standards of living are generating 243.64 ton of solid wastes in per day on the basis of per capita waste generation rate 0.42 kg /day in savar municipality. The solid waste of savar municipality generally has a high organic content (88.80 %) and a low proportion of combustible matter.The study has been carried out on the present state of waste generation and solid waste management condition of savar municipality. It is found that there are 44 illegal dumping sites situated in Savar municipal area. Lack of awareness and restrictions regarding proper dumping are the main cause of illegal dumping in Savar municipal area. The uncollected wastes are dumped in street, open spaces and drains, clogging the drainage system, which create serious environmental degradation and health risks. This study revealed the problems of existing solid waste management.Savar Municipal Authority is the only responsible organization for solid waste management. The production of municipal solid waste represents one of the greatest challenges currently faced by Savar Municipal Authority. About 45% respondents are not satisfied with the existing solid waste management system of the Savarmunicipality.To enhance the drawbacks of the existing solid waste management, the study attempts to recommend some measurements and guidelines for solving the problems of solid waste management system in savar municipality.

KEYWORDS: Municipality, Solid waste, Waste generation, Waste disposal, Recommendations.

I.   INTRODUCTION

Bangladesh is the world's 8th highest populated country with population of 147.36 million and the growth rate of population is 1.37% (BBS, 2011). In Bangladesh, Waste generation and its impact is the most troublesome in urban area. GDP & Population are liable to increasing the waste generation rate. In the 1991 urban population was 20.8 million and total waste generation rate 6493 ton / day, per capita waste generation rate in urban area was 0.31 kg/cap/day along with per capita GDP was US $ 220. In 2005, urban population is 32.76 million and total waste generation rate 13330 ton / day, per capita waste generation rate in urban area was 0.41 kg/cap/day along with per capita GDP was US $ 480. It is projected that in 2025, urban population is 78.44 million and total waste generation rate 47000 ton / day, per capita waste generation rate in urban area is 0.60 kg/cap/day (Enayetullah, 2006).

In the cities of Bangladesh, nearly 50 percent of the daily generated garbage remains uncollected. The concern authorities have apparently failed to provide satisfactory conservancy services to users because of resource problems or technical difficulties (Bhuiyan, 2009). The uncollected waste, which is often also mixed with human and animal excreta, is dumped indiscriminately in the streets and in drains, so contributing to flooding, breeding of insect and rodent vectors and the spread of diseases (Zurbrugg, 2002). The uncollected waste also threat to the public health in particular and the environmental quality in general (Alam&Sohel, 2008). Presently an estimated 7,000 tons of MSW is generated daily in the Dhaka City of which only 1200–1500 tons is disposed in the landfills and the rest left unattended or locally dumped. MSW is only being disposed and dumped for filling low-lying lands. The uncollected wastes are dumped in open spaces, streets which clog drainage system creating serious environmental degradation and health risks obstacles (Hasan, Tetsuo & Islam, 2009).

Savarmunicipality is the sub-urban and the fringe area of Dhaka city. It is situated only 25 km away from the Dhaka city. Total population of the Savarmunicipality is 286008; population density is 4948 per sq. km and Urbanization rate 21.42% (BBS, 2011). In the present time, Savar municipality is unable to handle the increasing amount of municipal solid waste, which into the uncollected waste being spread on roads and in other public areas leading to tremendous pollution

and destruction of land and negative impact on human health. In this situation, the study will identify the existing waste generation and management scenario. This study will also provide some guideline for solid waste management that will help to reduce the environmental degradation and economically sounds for solid waste management in the Savarmunicipality area.

II. MATERIALS AND METHODS
2.1 Study Area
Savarmunicipality has selected for the study after realized the different problems of solid waste management. Savar was declared as "A" category municipality in July 29, 1997. It is located to the northwest of Dhaka city at a distance of 25 km from Dhaka city Centre. It lies between 23º44′ and 24º02′ north latitude and 90º11′ and 90º22′ east longitude. Municipal area is bounded with three rivers -Turag on the east and east west, Dhalesswari and Bonshi on the west and Buriganga on the South. Only the northern side is without any river (MIDP: SavarPourashava, 2008). Figure 2.1 shown the Location Map of Savarmunicipality.

Fig 2.1: Location Map of Savarmunicipality

Source: Savarmunicipality, 2020

2.2 Administrative Structure
Administratively Savarmunicipality is divided into 9 Wards and 44 Mouzas with 55 Mahallahs (BBS, 2011). The wards of the municipality are shown in figure 2.2
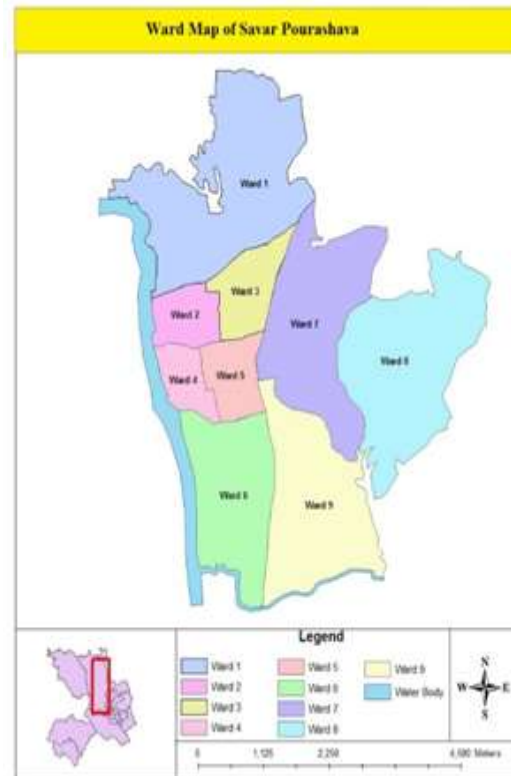

Fig 2.2: Ward Map of Savarmunicipality
Source: Savarmunicipality, 2020

2.3 Area and Population
Savarmunicipality(Pourashava) has an area of almost 14.08 km^2 (MIDP: Savarmunicipality, 2008). Population of Savarmunicipality is shown in table 2.1.

Table 2.1: Population of Savarmunicipality

Year	Total population
2001	140300
2011	286008
2020	526255

Source: Population Census, 2001, 2011 and projected population.

The total numbers of population is 286008 where 148958 are male and 137050 are female and average populations of each ward are 31778. Maximum population is contains in Ward no 7, where population is 50053 and minimum population is contains in Ward no 4 where population is 14628. The total numbers of household are 74515. Maximum household are contains in Ward no 7, where household are 13192 and minimum household are contains in Ward no 4 where households are 3424 (BBS. 2011).

According to Population Census 2011, the density of population in Savarmunicipality is 4948 per sq. km (Density per sq. mile is 12814).

2.4 Connectivity
Savar has good road connections to both the capital city and with the major highways of the country. It is connected with the capital city, Dhaka by Dhaka-Aricha highway. The rivers Dhalesswari and Buriganga also connect Savar with Dhaka (Miti, 2008).

2.5 Land use Scenario
The land use of the study area is mixed. Mixed land use comprises both the mixing of residential, commercial, industrial, agricultural and institutional land use, open space, water bodies and road network. The mixing type of these land use is seen almost all every ward in the study area. The land use patterns are shown in the table 2.2.The existing municipality area is 1408 ha. Most of the municipalityarea (750 ha) is used for residential purposes and which is occupies 53.27% of the total municipalityland. Others land includes water bodies, well, flood flow zone, open space and recreational area etc. is 25.28%, which is the second height of land in themunicipality. Agriculture and Commercial land is respectively 14.20% and 3.27%. 2.13% land using administrative purposes. Land use under industrial is only 1.85%.

Table 2.2: Land use pattern of Savarmunicipality

Land use	Area (ha)	Percentage (%)
Residential	750	53.27
Commercial	46	3.27
Industrial	26	1.85
Agricultural	200	14.20
Administration	30	2.13
others	356	25.28
Total	1408 ha = 14.08 Sq. km	100

Source: MIDP: Savarmunicipality, 2008

2.6 Methods of Data Collection and Sampling Procedures
The research study is conducted with a pre-design methodology. Relevant and required data are collected both from primary and secondary sources.

Primary Data
Primary data were collected from February to March 2020. Primary data are collected by the following methods:

☐ **Observation Method**
This method implies the collection of information by way of investigator's own observation, without interviewing the respondents (Kothari, 2004). This method was used to achieve the preliminary knowledge and make some basic concept. This method is very fruitful to achieve a clear idea about the existing solid waste management system. This method is also very helpful to identify solid waste effects on environment and living quality of residents.

☐ **Data collection through questionnaire**
A well designed questionnaire is the only way to meet the required data to fulfill the objectives. Questionnaire was developed, encompassing all the data in data list that need to be collected. Questionnaire was developed in simplified form for better understanding of all respondents. Though it is quiet impossible to survey the whole population, so sampling procedure is used in this case. Firstly, divided the Savarmunicipality area into several strata (e.g. ward 01, ward 02, ward 03, ward 04, ward 05, ward 06, ward 07, ward 08 and ward 09). Then sample were selected from each stratum by using purposive sampling technique. Total 450 sample size has taken for the study among which 50 from household of each ward in Savarmunicipality.

Secondary Data
Secondary data including solid waste management related information such as, profile of the municipality, Municipal Infrastructure Developments Plan: Savarmunicipality, land use map and list of dumping sites. These data were collected from Savarmunicipality. It also includes Annual Budget Report. Supporting information collected from Bangladesh Bureau of Statistics, Bangladesh Economic Review. Supporting information collected information from several books, thesis papers, articles, journals, newspapers etc. and used the internet service to collect data.
The report was presented through narrative, tabular and figure form and illustrative data extract to support arguments in relation to the research questions and literature (Hossain, Ahmmed, & Chowdhury, 2019).

III. RESULT AND DISCUSSION
Existing waste generation and management scenario of Savarmunicipality has studied based on the data collected by questionnaire survey.

3.1 Types and quantity of waste generation

Mainly organic wastes (e.g. vegetable, fish, fruit, and animal dung) and inorganic wastes (e.g. polythene, plastic, metal, glass, paper) are generated every day from household in the Savarmunicipality.It also found that the amounts of organic wastes are higher than the inorganic wastes in Savarmunicipality. Here organic waste stream is (88.80%) higher than the inorganic waste stream. Among organic waste stream, the vegetable scrap occupies the higher portion (78.29 %).

Organic	Quantity (Kg/Day)	Percentage (%)	Inorganic	Quantity (Kg/Day)	Percentage (%)
Vegetable Scarp	636.33	78.29	Polythene	31.48	3.88
Fruit Scarp	41.05	5.06	Plastics	16.7	2.06
Animal Dung	6.76	0.83	Metal	11.6	1.45
Fish Scale	37.46	4.62	Glass	6.9	0.87
Others	-		Others	23.8	2.94
Total	721.6	88.80	Total	90.48	11.20

Table 3.1: Types and quantity of waste generation

Source: Field Survey, 2020

3.2 Waste generation rate

According to Hai & Ali (2005),
Waste generation rate in per household = total waste generation / total household = 812.08 (kg / day) / 450 = 1.80 kg / day
And, Waste generation rate in per person = Waste generation rate in per household / household size
Here, household size = 4.32 (BBS, 2011).
Waste generation rate in Savarmunicipality
=1.80 (kg / day) / 4.32
= 0.42 kg / day
So, Waste generation rate in Savarmunicipalityis 0.42 kg / day per person.

3.3 Amount of waste generation of per day

Waste generation of Savar municipality (2020) = Population of Savar municipality (2020) × Waste generation rate (Hai & Ali, 2005).
= 526255 ×0.42 kg/ day
          = 221027 kg/ day
= 243.64 ton / day

3.4 Existing solid waste management system of Savarmunicipality

Savarmunicipality is the sole responsible authority to manage solid waste generated within municipal area. Figure 3.1 depicts the existing solid waste management system of Savarmunicipality. Conservancy department of Savarmunicipality is managing the solid waste in three major steps:
1. Collection and Storage
2. Transportation
3. Disposal

3.5 Collection and storage

Savarmunicipality has 190 workers to collect the wastes. The appointed persons are directed to collect the wastes by going one house to another house and community collection system. Within 450 respondents, 189 respondents said that house to house waste collection exists here and rest of the people say that community collection system is present. House to house collection method is available specially ward no. 3, 5, 6 and 8 in Savarmunicipality. Respondents said that there are three causes for not available house to house waste collection exists here; one is the position of dustbins, second is restriction to enter the house and another one is the irresponsibility of the appointed persons. The workers collect waste from 7 am to 3 pm every day. After the collection of wastes, they disposed the wastes into vans or trucks. Sometimes, it is found that the sweeper used road sides as primary disposal sites. In community collection method, the householders carry their wastes to solid waste dustbins or similar facilities situated at specific locations and deposits waste there (Ahmad and Rahman, 2000). From field survey, 2020 it is found that 49 dustbins are placed in front of the houses or beside the entrance. The residents store waste in these dustbins. Solid waste collection trucks, vans or pick ups visit these locations at regular intervals e.g. daily collection, 3 day per weak, 2 day per weak or 1 day per weak and collects these wastes.

Fig 3.1: Existing solid waste management system of Savarmunicipality
Source: Prepared by author on the basis of field survey, 2020

3.6Types of storage facility

From field survey, 2020 it is found that there are four types of storage facility in saver municipalityarea. Within these storage facilities, only 49 are dustbins. The number of dustbins is not sufficient for waste collection. According to field survey, 53% household said that in their area dustbins are available. Less household opines on behalf of large containers. Figure 3.2 shown the respondents opinion on type of storage facility are available in their locality.
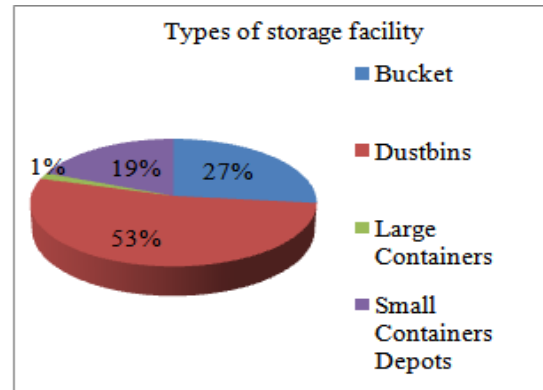
Source: Field Survey, 2020
Fig 3.2: Type of storage facility

3.7 Existing dustbins at Savar municipality

In Savar municipality, ward no 01, 02, 03,04, 05, 06, 07, 08, 09 number of dustbins is 4, 3, 4, 3, 5, 3, 11, 08, 08 respectively and total 49 dustbins only. Compare with the population and waste generation, the number of dustbins is not adequate and are not placed in proper locations.

Source: Developed on the basis of field survey, 2020
Fig 3.3: Existing dustbins of Savar municipality

Most of the dustbins were located along to the road sides. it is found that most of the dustbins are break down and cover material is not exist. As a

result, increasing bad odor, scattering of waste, breeding of vector and insect, residual waste being leached into the inner layer of ground water and passengers face bad odor, sneezing, when pass the dustbins location. Figure 3.3 show theexisting dustbins location of Savar municipality.

3.8Transportation

The appointed workers uses fifty vans, five trucks, two pick up to carry the generated waste to the disposal site. The capacity of each van is about 214 kg, truck is about 1000 kg and pick up is 500 kg. Each van comes two times a day to collect the waste. Mainly, trucks and pick ups are used to carry the wastes for long distance dumping sites.

3.9Disposal

At present, there are six designated dumping sites and 44 illegal dumping sites in the Savar municipality. These dumping sites are used as a final disposal of wastes in Savarmunicipality. The solid waste dumped at these sites without adopting any pollution control measures. These dumping sites affect the build environment and hamper the human health. The leachates from open waste dumping sites are polluting the surface and ground water around the sites.

3.10Existing designated dumping sites of Savarmunicipality

Designated dumping sites refer to the disposal of waste into municipality own dumping sites or disposal of wastes into private property by the permission of owners of these sites. At present there are six dumping sites used by Savarmunicipality. The name of the dumping sites, location, area, covering area / ward are given in the table 3.2

Table 3.2: Existing designated dumping sites

Name of the dumping sites	Location (Ward no)	Area (Acre)	Covering area / ward
Ara Para	2	1.20	1, 2
Uttor Nama Bazar (beside the river)	4	0.16	4
Doxin Nama Bazar (beside the river)	6	0.24	At the present time, the site is closed because of

			flooded.
Karna Para (beside the river)	6	0.64	At the present time, the site is closed because of flooded.
Ulail	6	0.21	3, 5, 6, 9
AichNoadda	7	0.32	7, 8

Source: Developed on the basis of field survey, 2020

Fig 04: Existing dustbins of Savar pourashava
Source: Savar Municipality, 2020

Savarmunicipality is the owner of the Doxin Nama Bazar and Karna Para dumping sites. Ara Para, Uttor Nama Bazar, Ulail and AichNoadda dumping sites are under the private ownerships. These dumping sites are situated in low land area. During the rainy season or at the time of flood Uttor Nama Bazar, Doxin Nama Bazar, Karna Para and AichNoadda dumping sites go under the water level (Savarmunicipality, 2020).
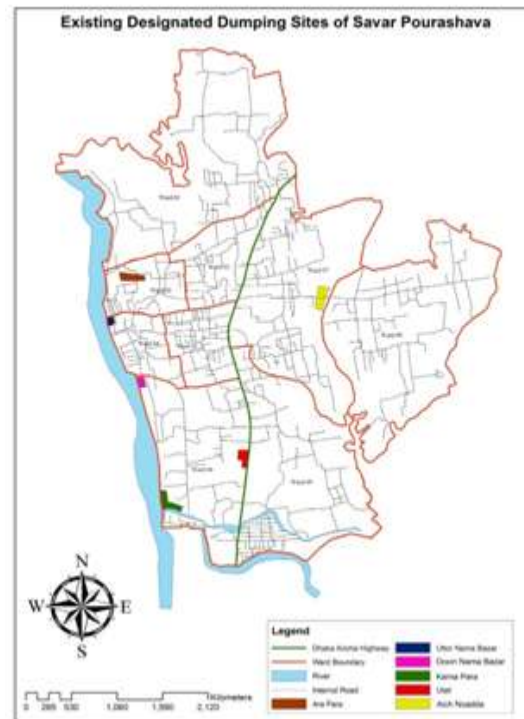

Fig 3.4: Existing designated dumping sites
Source: Developed on the basis of field survey,2020

3.11 Impacts of the existing dumping sites

From the field survey, 2020 it is found that existing designated and illegal dumping sites are near to the water body; build up urban area and road sides. For this reason, these dumping sites are mainly liable to create water pollution, air pollution, odor and visually not pleasant. Respondents mention negative impacts ofthe existing dumping sites (Figure 3.5). About 30% respondents said that these sites create odor and 20% respondents said that visually not pleasant.
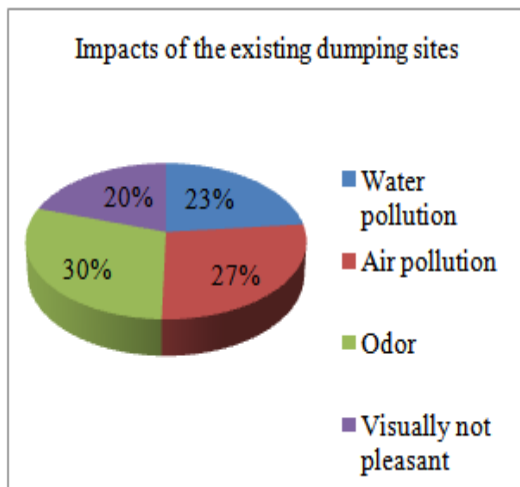

Fig 3.5: Impacts of the existing dumping sites.
Source: Field Survey, 2020

3.12 Satisfaction level about present location of dumping sites

In Savarmunicipality, there are two kinds of dumping sites e.g. designated and illegal dumping sites. From the field survey 2020, it is found that there are 6 designated dumping sites and 44 illegal dumping sitesin Savarmunicipalityarea. Within 6 designated dumping sites, 4 sites are located beside the water body and flood flow zone. These sites are polluting the water and affects health of the residents. Other two sites are near the build environment, they creates odor, air pollution and hamper the community. Illegal dumping sites are the predominant reasons for disturbing the community. For this reason, 90% households are not satisfied with the present location of dumping sites.

3.13 Waste disposal system of household in the absence of house to house collection

From filed survey, 2020 it is found that in the absences of house to house collection, maximum household disposed their wastes along the road side carelessly. It pollutes the environment and affects the human health.In figure3.6shown the waste disposal system of household in the absence of house to house collection.It has been seen that most of the dustbins situated beside the road. It creates odor and air pollution. Minimum household throw their waste in the surrounding water body. It creates water pollution, odor and water borne diseases that also affects the human health.
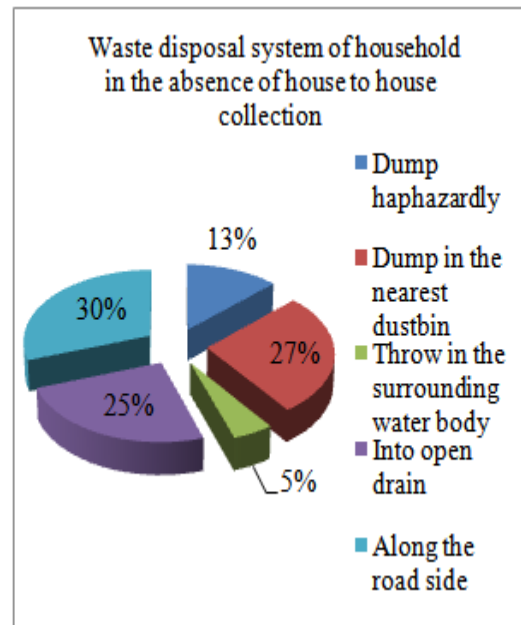

Fig 3.6: Waste disposal system of household in the absence of house to house collection.
Source: Field Survey, 2020

3.14 Opinion about the frequency of waste collection

Most of the respondents are not satisfied with the frequency of waste collection. There are no private companies to engaged wastes collection. Savarmunicipality authority is the only one organization who is engage to wastes collection in the Savarmunicipalityarea.
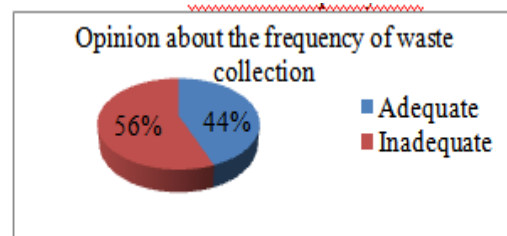

Fig 3.7: Opinion about the frequency of waste collection
Source: Field Survey, 2020

3.15 Opinion about waste segregation

In Savarmunicipality area, there is no facility provided by authority for segregation of waste before disposal. There is no private company engaged for waste segregation before disposal. About 17% respondents said that less amount of inorganic waste is segregated by the sweepers and households in their own initiatives. Mainly households segregated the inorganic wastes such as paper, polythene, plastic and metal before the disposal of waste into bucket, dustbins or handover sweeper.

3.16 Opinion about the existence of storage facility

In Savarmunicipality, there are inadequate numbers of storage facilities. The capacities of those storages facility are so inadequate that they do not bear the existing load. From field survey, 2020 it is found that some households use personal bucket or container to collect waste. About 72% household has no existence of storage facilities.

3.17 Illegal dumping sites of Savarmunicipality

In the rainy season, the wastes are dumped along the road sides, low land area and open drains that are known as illegal dumping sites. The common and large area illegal dumping sites are located beside the Dhaka Aricha highway. In the radio colony station, the wastes are dumped along the main road of Dhaka Aricha highway. Another's large area covering illegal dumping sites are located near Savarthana bus stand and near the bank town area. Besides these, there are many illegal dumping sites in the Savarmunicipality. In all most every ward there are many illegal dumping sites in the Savarmunicipality area. From the field survey 2020, it is found that there are 44 illegal dumping sites situated in Savarmunicipality area. Lack of awareness and restrictions regarding proper dumping are the main cause of illegal dumping in Savarmunicipality area. These illegal dumping sites create bad impact on the surrounding area and pollute the environment. The figure 3.8 shows the illegal dumping sites at ward based in Savarmunicipality.

Fig 3.8: Existing illegal dumping sites
Source: Developed on the basis of field survey, 2020

3.18 Satisfaction level about the existing solid waste management system

From field survey 2020, it is found that about 45% respondents are not satisfied with the existing solid waste management system of the Savarmunicipality. In Figure 3.9 shown the satisfaction level of respondents about the existing solid waste management system.
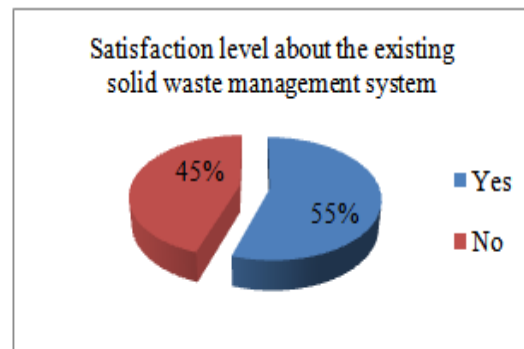

Fig 3.9: Satisfaction level about the existing solid waste management system.
Source: Field Survey, 2020

IV. CONCLUSIONAND RECOMMENDATIONS

Rapid population growth, urbanization and industrialization are the main reasons to produce huge amount of solid waste in savar municipality. The current service delivery system is not satisfactory level of the residents of savar municipality. Inadequate collection and storage, lack of transportation facilities and suitable disposal sites were found the main obstacles for efficient solid waste management in Savarmunicipality. From the study, it is found that about 45% respondents are not satisfied with the existing solid waste management system and it has also found that existing dumping sites are located beside the water body, roads, flood flow zones and build up urban areas. These dumping sites are mainly responsible to create water pollution, air pollution, unpleasant odor, hamper aesthetic value and affects health of the residents. Therefore, this will create a lot of problems in future, so 95 percent respondents recommended that landfill is the best possible solution to minimize the huge amount of waste.

An effective solid waste management system is helpful for proper solid waste disposal without environmental pollution and ensure health hazards free and aesthetically pleasing environment. To enhance the drawbacks of existing waste management system, the following recommendations should be considered.

4.1 Increasing frequency of waste collection

At the time of waste collection, the authority should be more aware about proper waste collection and frequency of waste collection should be increased on the basis of respondent's suggestion. About 51.26% respondents suggest that frequency of waste collection should be 2 times in a day e.g. morning and evening.

4.2 Providing facility to segregate waste

Segregation of waste is very essential for composting, recycling or energy recovery process. Waste segregation reduces the environmental pollution, and increasing economic benefits. In the disposal sites, waste segregation is difficult because it needs more manpower;increase the cost of handling and necessary equipment. Waste should be segregated at the source e.g. respondent's house. From the field survey, 2020 it is found that if the necessary opportunity or equipment is provided by municipality authority, the respondents said that they will agree to segregate of waste at the house. About 41.09% respondents said that providing separate container. So, municipality authority should be provided opportunity or equipment for segregation of waste that will reduce the landfill space and environmental pollution.

4.3 Providing adequate number of dustbins

From the field survey, 2020 it is found that there are only 49 dustbins in Savar municipality. In terms of quantity of waste, The number of dustbins is not adequate. About 23.76% respondents suggest that providing adequate number of dustbins. So, Savarmunicipality authority should be provided adequate numbers of dustbins considering current waste generation rate.

4.4 Removing illegal dumping sites

From the field survey 2020, it is found that there are 44 illegal dumping sites in Savarmunicipality. These illegal dumping sites are creating bad impact on the surrounding area and pollute the environment. About 18.32% respondents suggest to relocate illegal dumping sites at suitable places. So, Savarmunicipality authority should relocate illegal dumping sites, impose restriction on illegal dumping and create awareness in this regard. To stop the open dumping of waste into the drain to prevent the clogging of the drains, the drain should be covered. The width of the drains may be widened.

4.5 Raising Public Awareness

Public awareness should be increased through various advertisements. Appropriate steps are to be taken to increase awareness among common people about the potential dangers of waste. This may reduce the amount of wastes generated as well as the risks associated with handling and carrying of waste. It can be done by following ways:

- Communityengaged in all stages of solid waste management system.
- Bring in responsibility among the communities of the study area towards the waste generated by them.
- Campaign for raising awareness among the residents of the study
- Proper trainings should be provided among the people engaged in waste management system.
- Capacity building of the Savar municipal staff is essential, especially regarding planning, tendering, technology, waste management system design, supervision, and monitoring. Creating centers of excellence within countries would help to support the improving the capacity development.

4.6 Respondent's opinion for final disposal method of solid waste management

From the field survey 2020, it is found that Savarmunicipality is unable to handle the increasing amount of municipal solid waste. Inadequate solid waste management system is liable to negative impacts on water body, environment and human health. It is found that about 95% residents prefer to landfill as the final disposal of solid waste management (figure 4.1). Respondents mentions the reason to choose landfill are cheap waste disposal options, Different type of waste can be disposed by landfill such as organic and inorganic waste or combination of organic and inorganic waste, Easy operation and less technical involvement that is adapted by municipality workers. The respondents also said that landfill is the best possible solution to minimize the huge amount of waste and municipality authority easily bears the cost for landfill construction and maintenance. Only 3% respondents preferred to incineration without thinking of cost or working capacity of municipality workers. On the other sides, 2% respondents are preferred for open dumping without judgment the environmental pollution.
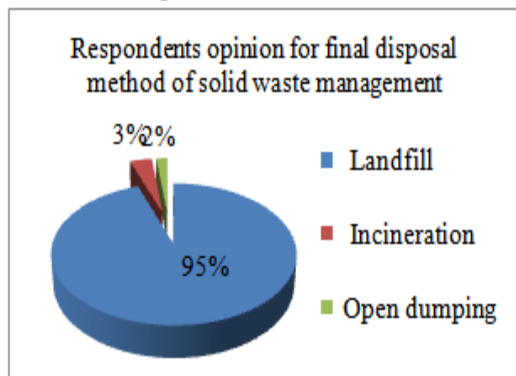

Fig 4.1:Respondents opinion for final disposal method of solid waste management
Source: Field Survey, 2020

4.7 Planning integrated solid waste management through a Hierarchy

Ensuring a better human health and safety there shall be a need of effective solid waste management system for the urban areas. A system, that needs to be safe for workers and public health. Besides these requisites, the system must be environmentally sustainable and economically feasible. An economically and environmentally sustainable solid waste management system is effective if it follows an integrated approach (Sahu, 2018). For the effective solid waste management,

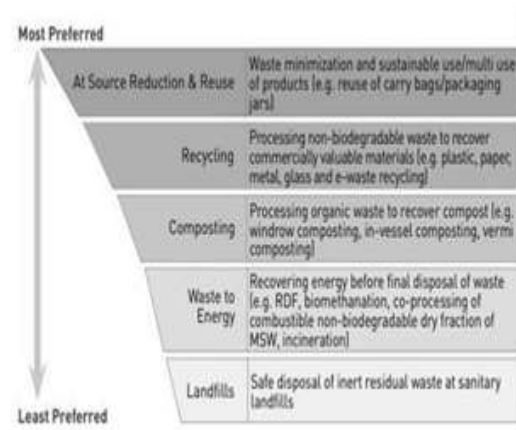Savarmunicipality authority should follow the integrated solid waste management (figure 4.2).

Fig4.2: Integrated Solid Waste Management System Hierarchy
Source: Sahu, 2018

In savar municipality, at source reduction, reuse and recycling is possible by active participation of the community. The Wastes can be reduced by changing the consumption pattern, use of recyclable materials, practice of waste segregation and refusing the use of polythene bags etc. (Sahu, 2018).

From the field survey, 2020 it is found that organic waste stream is (88.80%) higher than the inorganic waste stream. It is the great potentiality for composting and waste to energy. Waste concern (2014) estimated that 1 ton organic waste can be produced 0.25 ton fertilizer. Saadat, et al., (2012) also estimated that price of 1 kg organic fertilizer is 8 tk. And estimated that 3590 kg of organic waste can be generated 30 kw/h electricity. Gregersen (2014) stated that 1 ton organic waste can be generated 0-1000 m^3 biogas. To minimize the crisis of land area for disposal of solid waste in the future, an effective option would be to reduce the volume of solid waste prior to disposal by composting of organic wastes (Hai and Ali, 2005). Savar municipal authority should take necessary steps for organic waste composting and waste to energy. After analysing the existing situation, it has understood that landfill is the crying need in Savarmunicipality as the final disposal of solid waste management.

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