Chapter-5

Result and Discussion

This chapter deals with results derived by statistical analysis after interpretation of raw field data and discussion of each result in a systematic manner. The results and their pertaining discussion and presented according to the specific objectives of the study.

Socio-Economic Profile of Selected Respondent

A profile provides for cross-sectional information of a situation. Socio-economic status refers to the position of an individual with reference to various indicators of social and economic condition in a rural community. The socio-economic status of selected respondents was calculated by adding the scores assigned to a category of each item.

Table 19: Socio-economic profile of selected respondents: N=250

Item	Category	Frequency	Percentage (%)
Age	Old age(≥ 68)	96	38.4
	Middle age(58 to 67)	126	50.4
	Young age(≤ 57)	28	11.2

Occupation	Pensioner Service Business	134 69 47	53.6 27.6 18.8
Education	Secondary Higher Secondary Graduate & above	118 77 55	47.2 30.8 22
Family Type	Joint Nuclear	136 114	54.4 45.6
Family Size	Up to 5 members Above 5 members	163 87	65.2 34.8
Income	High(≥33,273) Medium (17,431 to 33,272) Low(≤17430)	79 47 124	31.6 18.8 49.6
No. of Rooms/Household	Double Triple More than Triple	93 135 22	37.2 54 8.8
No. of Latrines/household	1 Latrine 2 Latrines More than 2 Latrines	16 224 10	6.4 89.6 4

Table 19 presents the frequency distribution of the respondents according to their Age, Occupation, Education, Family Type, Family Size, Income, and Number of Rooms per Household and Number of Latrines per Household.

Age

The attribute age has categorized in three distinctive category viz. Old age (mean + ½ s.d), Middle age (mean ± 1/2 s.d) and Young age (mean - 1/2s.d) i.e. greater than or equal 68 is said to be Old age , 58 to 67 is said to be Middle age and less than or equal 57 is said to be Young age. The majority percentage of the respondent is 58 to 67aged i.e. middle age categories (50.4%), then Old age categories (greater than or equal 68) i.e. (38.4%) and last is Younger categories i.e. (less than or equal 57) is (11.2%).

Education

The education level of the respondent has been classified into three categories i.e. Secondary education, higher secondary education and Graduate and above. The result shows that 47.2% of the respondent had an education up to secondary level, 30.8% of the respondent had achieved higher secondary level and 22% of the respondent had achieved graduate and post graduate level.

Occupation

The attribute occupation has been classified into three categories viz. pensioner, business and service. The result shows that 53.6% of the respondent earn their income from pension, 27.6% of the respondent engaged in service and 18.8% of the respondent are engaged with business.

Family Type

The attribute Family Type has two distinct categories viz. Nuclear Family and Joint Family. The result shows that in the selected area the majority of

the family is Joint Family (54.4%). The percentage of the Nuclear Family is 45.6%.

Family Size

The attribute Family Size has classified into two distinct categories viz. up to 5 members and above 5 members. In the selected area the majority percentage of the respondent is up to 5 members (65.2%) and above 5 members (34.8%).

Income

The attribute Income has categorized in three distinctive category viz. High(mean + ½ s.d), Medium(mean ± 1/2 s.d) and Low(mean - 1/2 s.d) i.e. greater than or equal 33,273 is said to be high, 17431 to 33,272 is said to be medium and less than or equal 17430 is said to be low. The majority percentage of the respondent earn their income belongs to Low categories (49.6%), then high categories (greater than or equal 33,273) i.e. (31.6%) and last is medium categories i.e. (17,431 to 33,272) is (18.8%).

Number of Rooms/Household

The attribute number of rooms per household has classified into three categories viz. Double rooms, Triple rooms and More than triple rooms. The result of the study area shows that majority of the respondent has Triple rooms in their house (54%). 37.2% of the total respondent has Double rooms in their house and 8.8% of the respondent has more than Triple rooms in their house.

Number of Latrines/Household

The attribute number of Latrines per household has classified into three categories viz.1 Latrine, 2 Latrines and More than 2 Latrines. The result of the study area shows that majority of the respondent has 2 Latrines in their house (89.6%). 6.4% of the total respondent has 1 Latrine in their house and 4% of the respondent has more than 2 Latrines in their house.

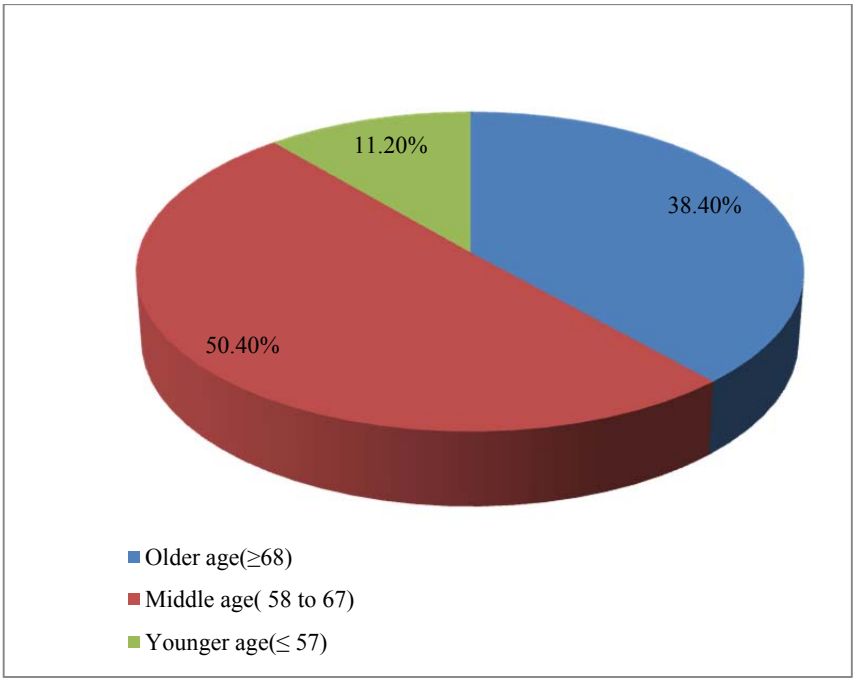

Fig. 4: Distribution of respondent according to Age

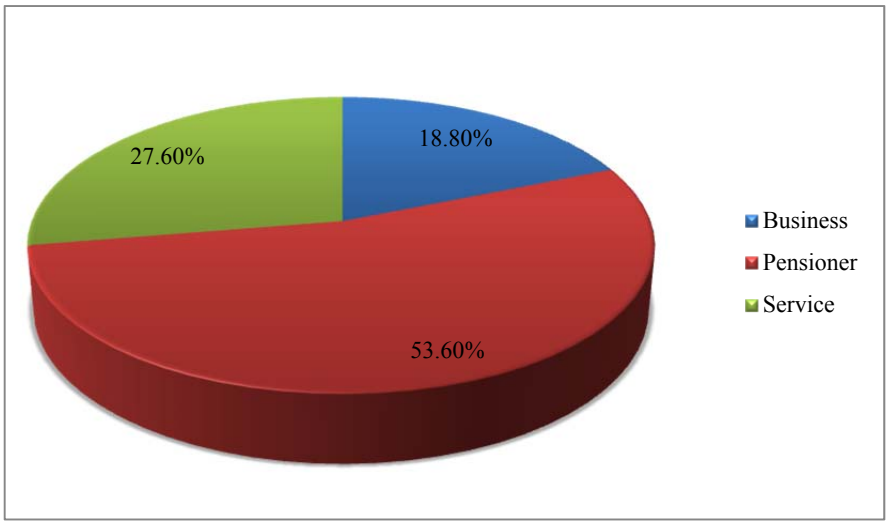

Fig. 5: Distribution of respondent according to Occupation

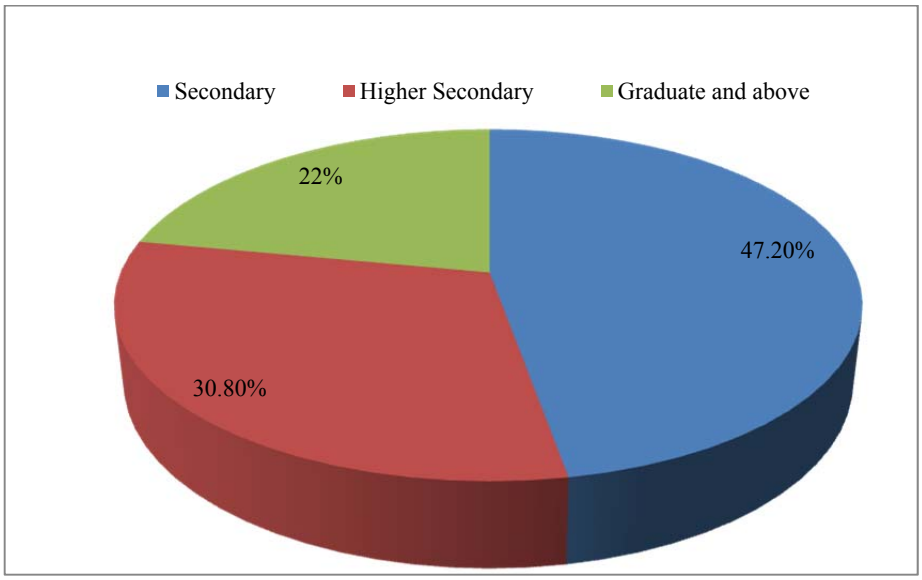

Fig. 6: Distribution of respondent according to Education

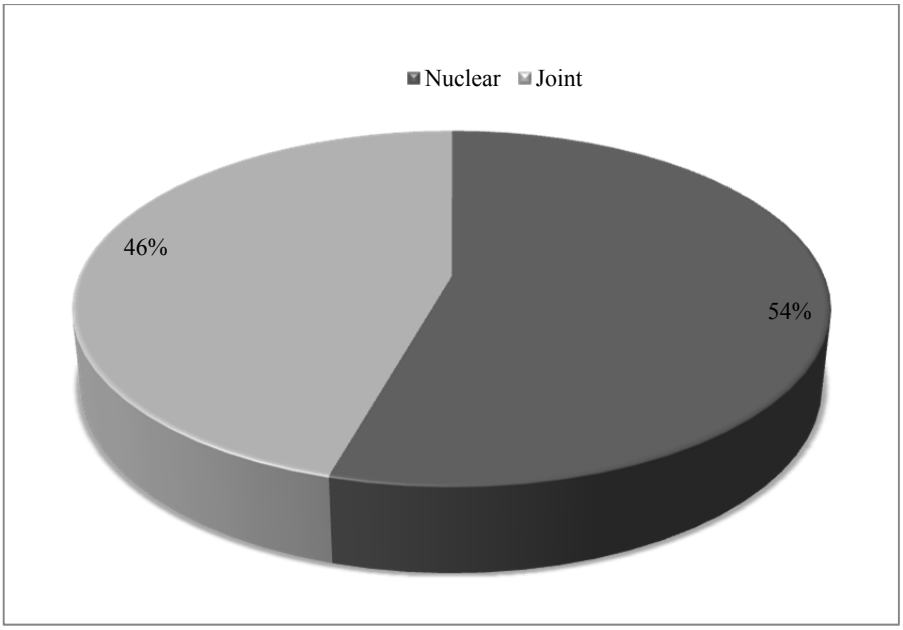

Fig. 7: Distribution of respondent according to Family Type

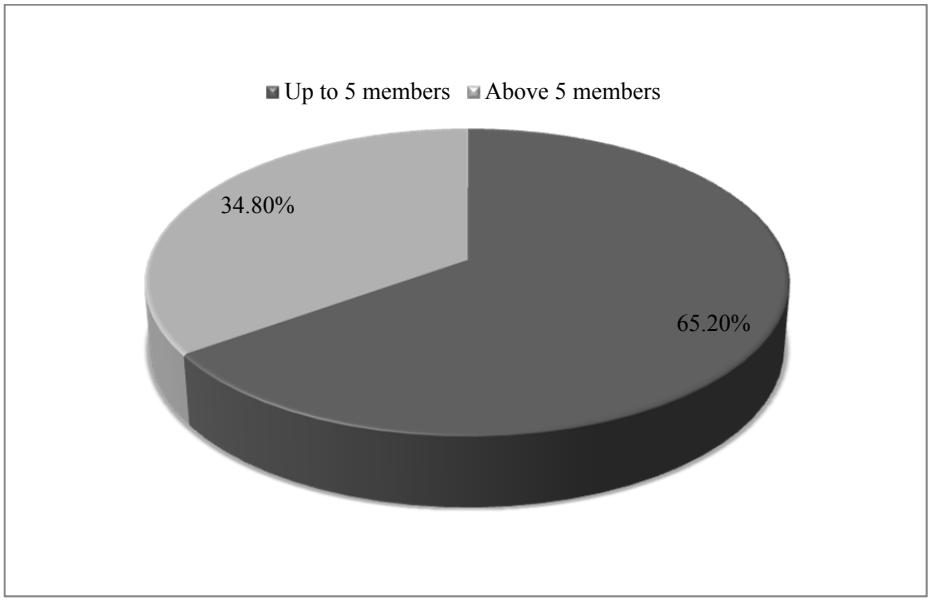

Fig. 8: Distribution of respondent according to Family Size

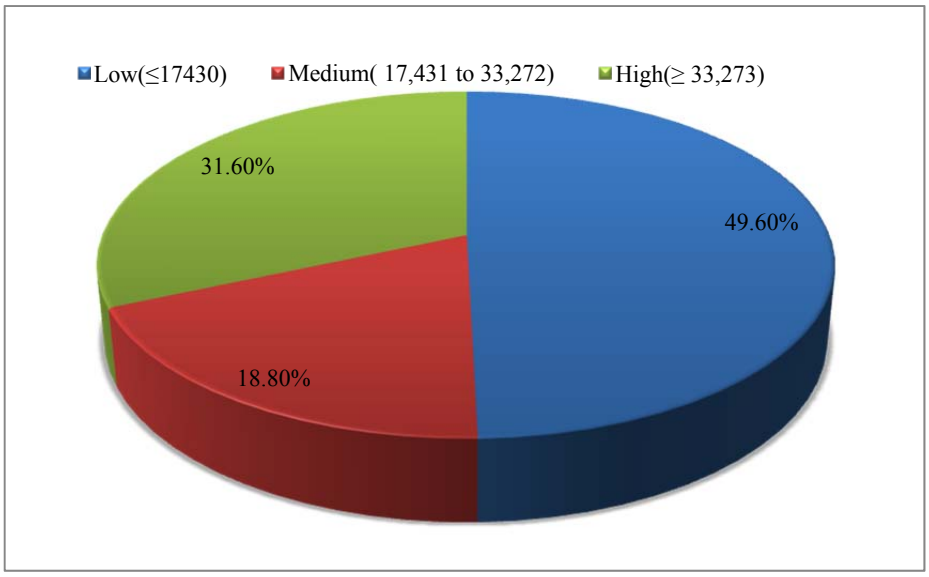

Fig. 9: Distribution of respondent according to Income

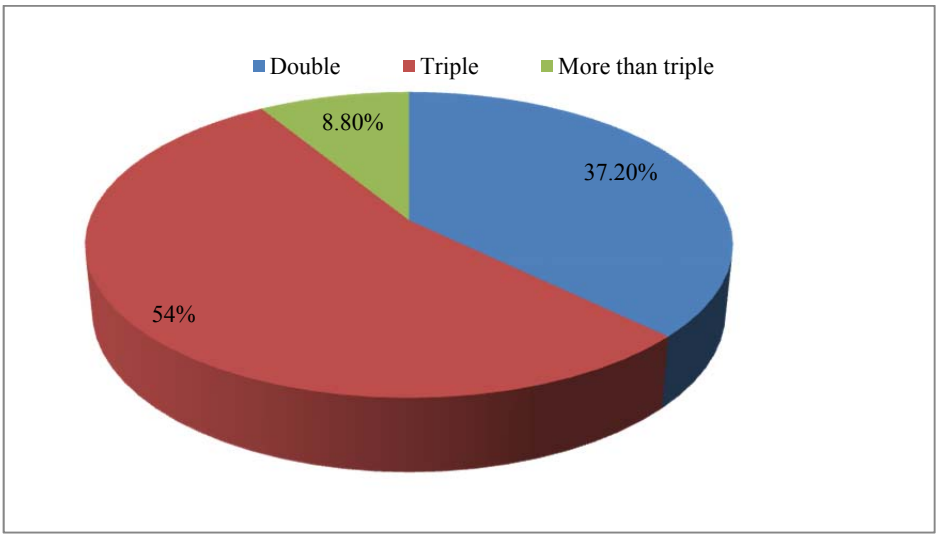

Fig. 10: Distribution of respondent according to Number of Rooms per Household

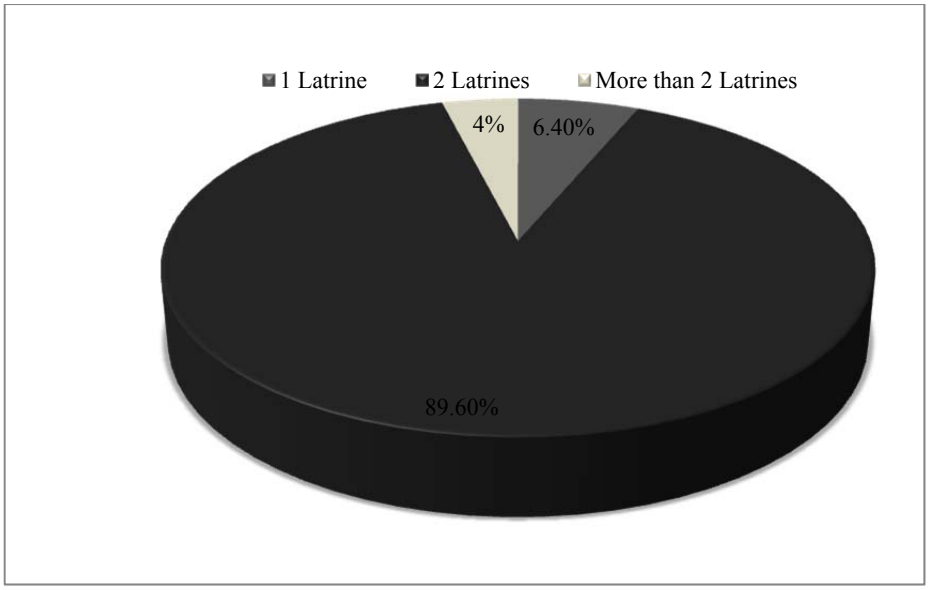

Fig. 11: Distribution of respondent according to Number of Latrines per Household

Table 20: General distribution of variables (independent variables) in terms of Mean, Standard deviation (S.D.), Co- efficient of variation (C.V.) for all respondents.

Variables	Mean	S.D.	C.V. (%)
Age	63	9.8	15.55
Education	11.08	2.25	20.30
Income	25352	15814.81	62.38
No of rooms per household	2.7	0.6289	23.29
No of latrines per household	1.968	0.2514	12.75
Family Type	1.54	0.49	31.81
Family Size	1.34	0.47	35.52
Occupation	1.82	0.89	48.90

Table 20. Presents the descriptive distribution of casual and consequent variables, considered for the study. The distribution of the variables under study have been represented with the help of mean, standard deviation and coefficient of variation according to their Age, Occupation, Education, Family Type, Family Size, Income, No of rooms per Household and No of latrines per household in a agreement in a given social system.

In case of Age, mean of respondents was 63 with a standard deviation of 9.8 for total distribution. The coefficient of variation of the age distribution of respondents was 15.55%.

In case of Education, mean of the respondents was 11.08 with a standard deviation of 2.25 for total distribution. The coefficient of variation of the occupation distribution of respondents was 20.30%

In case of Income, mean of the respondents was 25352 with a standard distribution of 15814.81 for total distribution. The coefficient of variation of the income distribution of respondents was 62.38%.

In case of No. of rooms per household, mean of the respondents was 2.7 with a standard deviation of 0.6289 for total distribution. The coefficient of variation of the No. of rooms per households of respondents was 23.29%.

In case of No. of latrines per household, mean of the respondents was 1.968 with a standard deviation of 0.2514 for total distribution. The coefficient of variation of the No. of latrines per household of respondents was 12.75%.

In case of Family Type, mean of the respondents was 1.54 with a standard distribution of 0.49 for total distribution. The coefficient of variation of the income distribution of respondents was 31.81%.

In case of Family Size, mean of the respondents was 1.34 with a standard deviation of 0.47 for total distribution. The coefficient of variation of the No. of latrines per household of respondents was 35.52%.

In case of occupation, mean of the respondents was 1.82 with a standard deviation of 0.89 for total distribution. The coefficient of variation of the No. of latrines per household of respondents was 48.90%.

Method of collection, Quantity and Types of Waste

Present Municipal collection system categories in to two parts-

Domestic waste collection system

- **House to House collection**- In this process waste collector knocks on each door or rings doorbell and waits for waste to be brought out by resident.

  Advantage- It is Convenient for resident. Little amount waste can be seen on street.

  Disadvantage- Residents must be available to hand waste over. Not suitable for apartment buildings because of the amount of walking required.

- **Community Bin collection**- Users bring their garbage to community bins that are placed at fixed points in a neighborhood or locality. Municipal solid waste is picked up by the municipality or it's designate according to a set schedule.

  Advantage- Low capital cost is required in case of community bin collection system.

Disadvantage- Loading the waste in to trucks is slow and unhygienic. Waste is scattered around the collection point. Adjacent residents and shopkeepers protest about the smell and appearance.

Commercial/Market waste collection system

- **Door to Door collection-** Most common method for colleting market waste id door to door collection. Here waste collector knocks on each door or ring bells and wait for waste to be brought out by resident. After the collection, the truck arrives at the designated point at a specified time and place. The waste is transported to the disposal site by means of a large capacity tipper truck, and in a few wards by a small capacity tripper truck or dumper placer. The truck is covered with a mesh and a polythene sheet to prevent scattering.

Types of Wastes-

Market Wastes

Table 21: Total market wastes generates per day

Ward no	Total no. of market	Quantity of waste(in kg/day)
1	1	750
3	1	700
4	1	750
7	1	700
9	1	750
11	1	700
12	1	800
13	1	700
16	1	700
18	1	750
21	2	1500
22	1	700

24	1	800
25	1	700
Total	15	11000

This result reveals that there are total 15 markets present in jalpaiguri town. Ward no 1 have one market with 750 kg wastes generation, ward no 3 have one market with 700 kg wastes generation, ward no 4 have one market with 750 kg wastes generation, ward no 7 have one market with 700 kg wastes generation, ward no 9 have one market with 750 kg wastes generation. Ward no 11 have one market with 700 kg wastes generation, ward no 12 have one market with 800 kg wastes generation, ward no 13 have one market with 700 kg wastes generation, ward no 16 have one market with 700 kg of wastes generation, ward no 18 have one market with 750 kg wastes generation, ward no21 have two markets with 1500 kg wastes generation, ward no 22 have one market with 700 kg of wastes generation, ward no 24 have one market with 800 kg of wastes generation, and ward no 25 have a single market with 700 kg of wastes generation. It is found that total 11000 kg wastes had generated from all market.

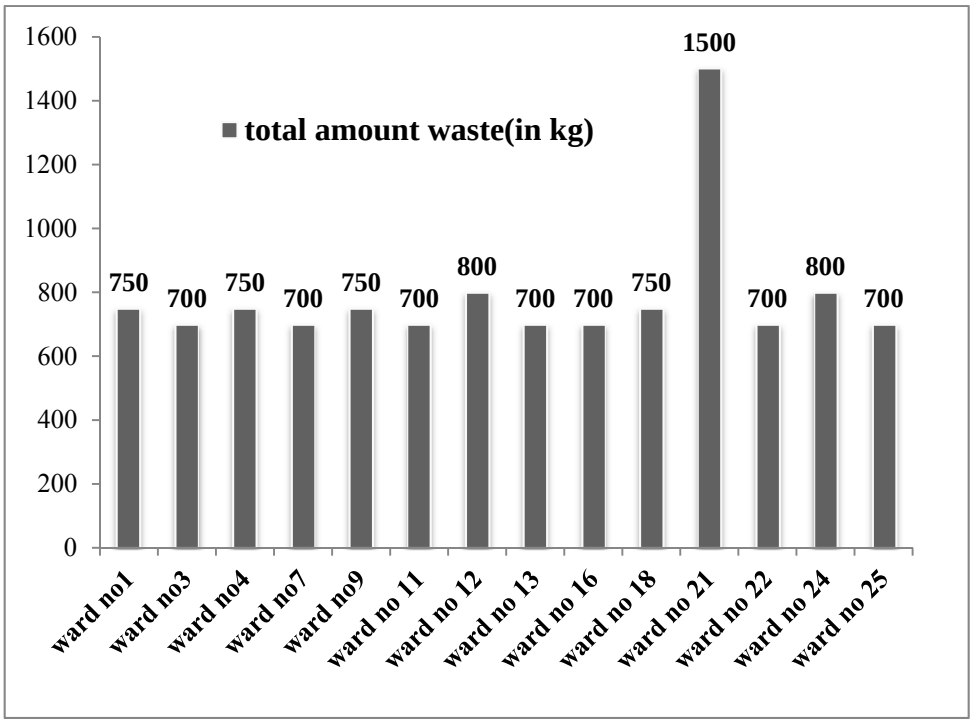

Fig. 12: Total amount of Market wastes

Hotel wastes

Table 22: Total Hotel wastes generate per day

Ward no	Total no of hotel	Total quantity of waste (in kg)
2	1	35
5	1	40
8	1	35
21	2	80
22	1	40
24	1	30
Total	7	260

This result shows that total 7 big hotels present in town. Ward no 2 have one hotel with 35 kg wastes generation, ward no 5 have one hotel with 40 kg wastes generation, ward no 8 have one hotel with 35 kg wastes generation, ward no 21 have two hotels with 80 kg wastes generation, ward no 22 have one hotels with 40 kg wastes generation and ward no 24 have one hotel with 30 kg wastes generation. Total 260 kg wastes generate from all hotels per day.

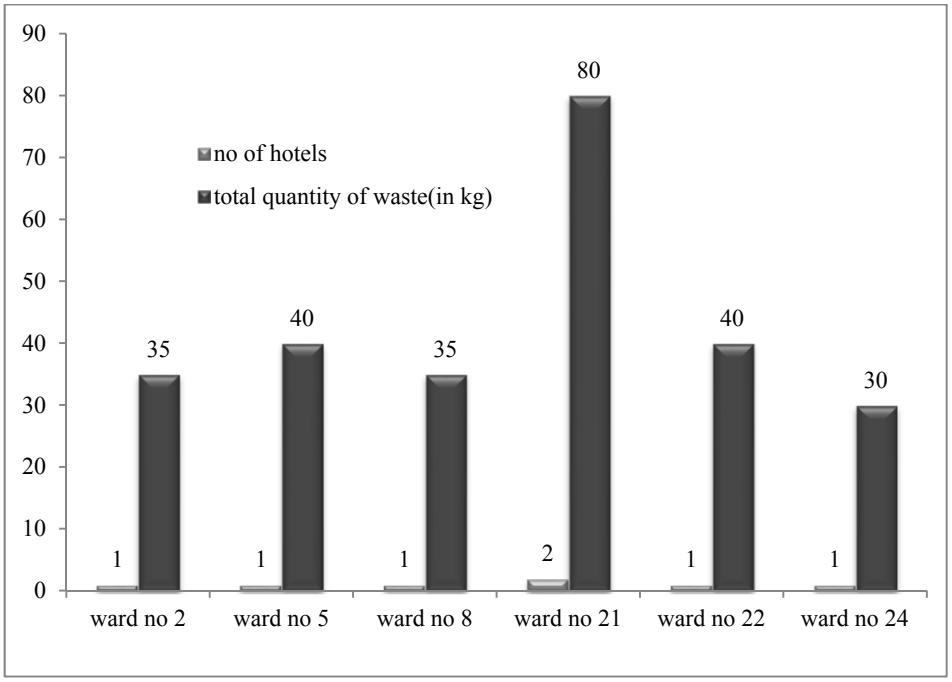

Fig. 13: Total amount of Hotel wastes

House hold Wastes

Among 25 wards 10 households randomly selected for the study.

Table 23: Total amount of waste surveyed household and total amount of waste generates per day

N=250

Ward No	Surveyed of Household	Amount of Waste (kg/day)
1	10	35
2	10	25
3	10	35
4	10	30
5	10	20
6	10	30
7	10	25
8	10	35
9	10	35
10	10	25
11	10	30
12	10	35
13	10	25
14	10	25
15	10	30
16	10	35
17	10	25
18	10	30
19	10	25
20	10	25
21	10	30
22	10	30
23	10	25
24	10	20
25	10	25
Total	250	710

This result reveals that total 710 kg and average 2.84 kg wastes generate per day from households. Average 35 kg wastes generates form ward no 1, from ward no 2 25 kg wastes generates per day from ward no 3 average 35 kg wastes generates per day, from ward no 4 30 kg wastes generates per day , from ward no 5 20 kg of wastes generates per day, from ward no 6 total 30 kg of wastes generates per day, from ward no 7 average 25 kg wastes generates per day, from ward no 8 and ward no 9 average 35 kg of wastes generates per day, from ward no 10 25 kg of wastes generates per day, from ward no 11 30 kg of wastes generates per day from ward no 12 average 35 kg of wastes generates per day, from ward no 13, 14, 17, 19, 20, 23 and 25 average 25 kg wastes generates per day. From ward no 15, 18, 21, and 22 average 30 kg of wastes generates per day. From ward no 16 average 35 kg wastes generates per day and from ward no 24 average 20 kg of wastes generates per day.

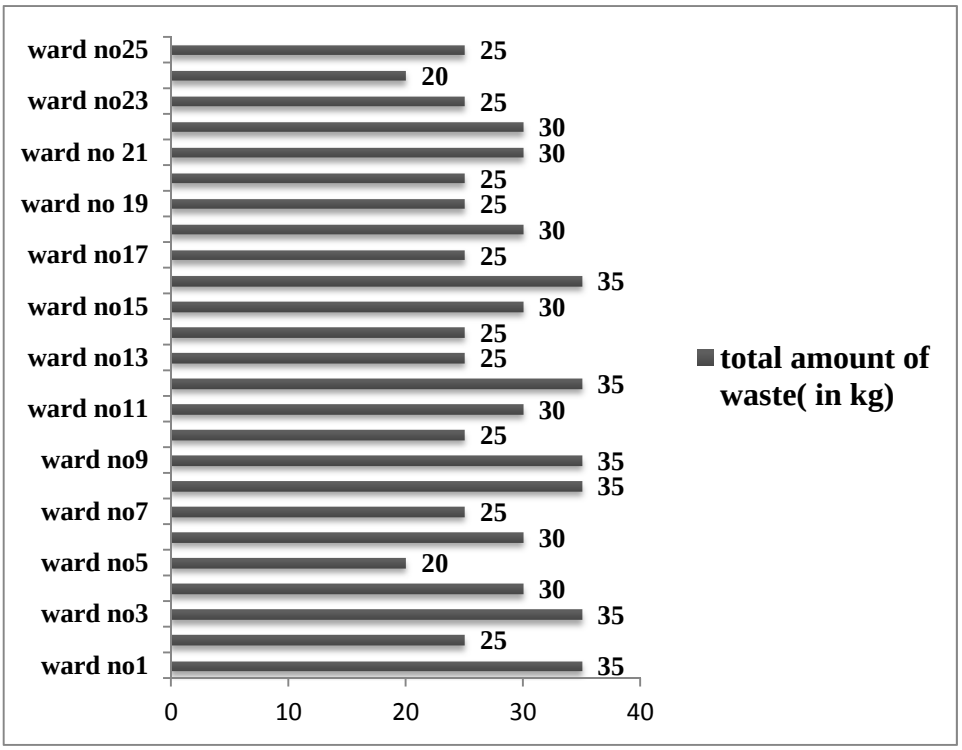

Fig. 14: Total amount of Household wastes

Table24: Methods of Waste Management by the Jalpaiguri Municipality Generation of wastes (kg per day)

	Types of waste	Total(kg)	Quantity of waste(kg/day)	
			Waste Type	
Municipality Waste Generation			Bio-Degradable	Non-biodegradable
	DOMESTIC	35200	21130	14080
	MARKET	12100	7250	4840
	HOTELS	260	130	130
	AGRICULTURE	1000	980	20
	TRADE	3000	0	3000

	RAILWAY STATION	50	0	50
	BUS STAND	100		100
	STREET SWEEPING	100	0	100
	DRAIN CLEANING	500	0	500
	INDUSTRY	0	0	0
	Cess pool	200		200
	Total	52510	29490	23020

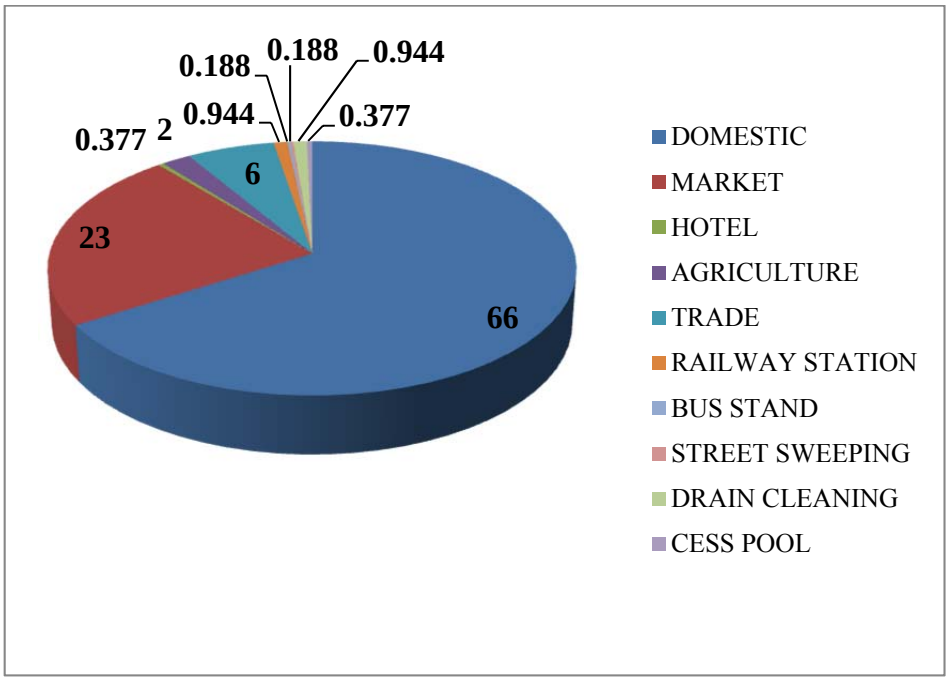

Fig. 15: Amount of municipality wastes generate per day

Types of municipality wastes

This result shows the estimation of total waste generation in jalpaiguri town. It is found that 35200 kg domestic wastes generate per day(66%) out

of which 21130 kg bio degradable in nature and 14080 kg non bio degradable in nature. 12100 kg market wastes generate per day(23%) out of which 7250 kg bio degradable in nature and 4840 kg non bio degradable in nature. 260 kg hotel wastes generate per day(0.377%) out of which 130kg bio degradable in nature and 130 kg non bio degradable in nature.

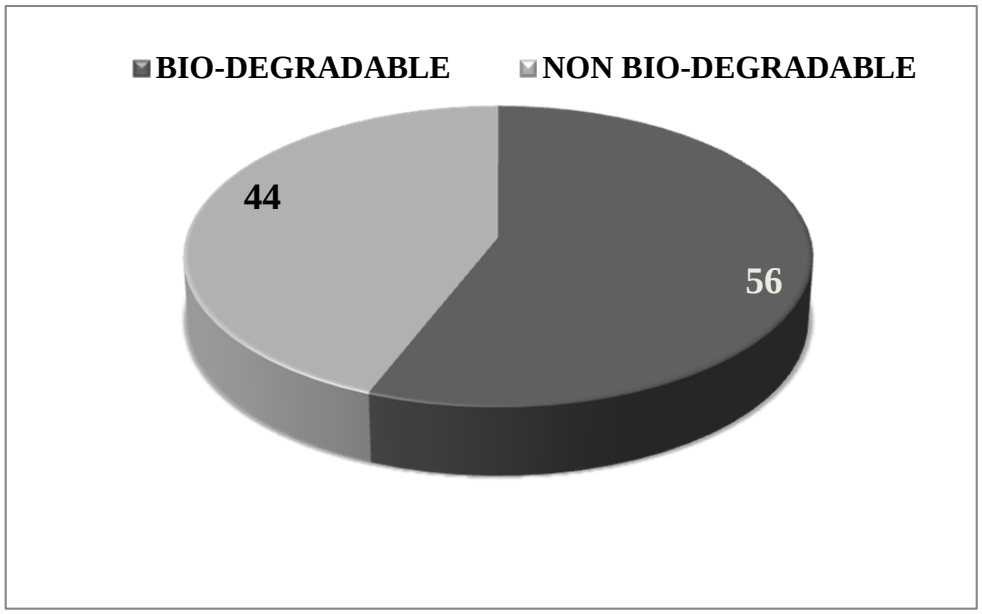

Fig. 16: Types of Municipality wastes

1000 kg agricultural wastes generates per day(2%) out of which 980 kg bio degradable in nature and 20 kg non bio degradable in nature. 3000kg wastes generates from trade sector(6%) out of which total 3000kg non bio degradable in nature. 50 kg wastes generates from railway station(0.944%) out of which 50 kg non bio degradable in nature. From bus stand 100 kg wastes generates per day out of which 100 kg non bio degradable in nature. From street sweeping 100 kg wastes generates per day out of which 500kg

non bio degradable in nature and from cess pool 200 kg wastes generates per day out of which 200 kg non bio degradable in nature. From result it is also found that out of total waste generation per day 56% of wastes are bio degradable in nature and 44% are non bio degradable in nature.

Table 25: People's perception on Wastes Management

People's Perception	Frequency	Percentage (%)
No problem	52	20.8
Slight Problem	30	12
Problem	64	25.6
Major Problem	104	41.6

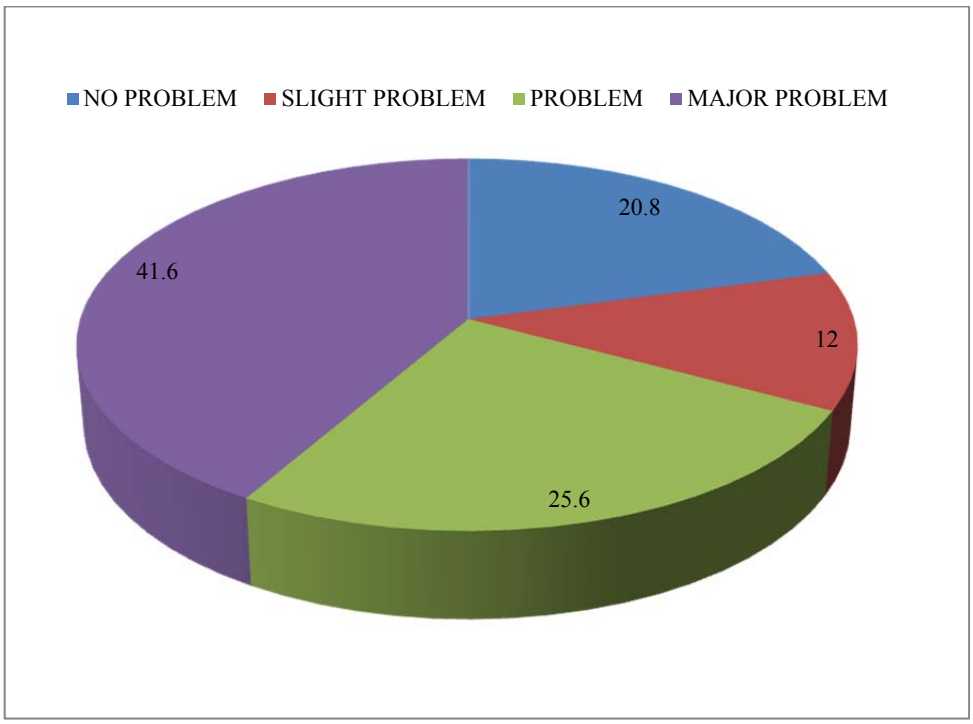

Fig. 17: People's perception on waste management

This result shows about people's perception on waste problem. It is shown that 41.6% of the respondents said that there is major problem on waste disposal or waste management. 25.6% of the respondents said there is a problem, 20.8% of the respondents said there is no problem and 12% of the respondents said waste disposal or waste management is a slight problem for the town.

Probit Analysis

People's perception on Wastes Management

Table 26: Parameter estimation of probit analysis

Parameter Estimates							
						95% Confidence Interval	
	Parameter	Estimate	Std. Error	Z	Sig.	Lower Bound	Upper Bound
PROBIT[a]	No problem	-2.627	.851	-3.088	.002	-4.294	-.960
	Slight problem	-4.333	1.448	-2.993	.003	-7.170	-1.495
	Problem	-2.878	1.089	-2.642	.008	-5.013	-.743
	Intercept	3.181	1.342	2.371	.018	1.840	4.523

Parameter Estimates							
						95% Confidence Interval	
	Parameter	Estimate	Std. Error	Z	Sig.	Lower Bound	Upper Bound
PROBIT[a]	No problem	-2.627	.851	-3.088	.002	-4.294	-.960
	Slight problem	-4.333	1.448	-2.993	.003	-7.170	-1.495
	Problem	-2.878	1.089	-2.642	.008	-5.013	-.743
	Intercept	3.181	1.342	2.371	.018	1.840	4.523

a. PROBIT model: PROBIT (p) = Intercept + BX (Covariates X are transformed using the base 10.000 logarithm.)

Table 27: Co-variance and correlation of three independent factor

Probit	No problem	Slight problem	Problem
No problem	.724	.555	.530
Slight problem	.683	2.096	.804
Problem	.491	1.268	1.187

Co variances (below) and correlation (above)

Table 28: Chi-square test of the parameters

Chi-Square Tests				
		Chi-Square	df[a]	Sig.
PROBIT	Pearson Goodness-of-Fit Test	5.401	20	.999

a. Statistics based on individual cases differ from statistics based on aggregated cases.

Table 29: The observed responses and expected responses using probit analysis

Number	No problem	Slight problem	Problem	Number of subjects	Observed responses	Expected responses	Residual	Probability
PROBIT 1	0.000	0.699	.477	10	1	1.112	-.112	.111
2	0.301	0.602	.477	10	1	.558	.442	.056
3	0.477	0.699	.301	10	0	.246	-.246	.025
4	0.477	0.699	.000	10	1	1.356	-.356	.136
5	0.477	0.699	.301	10	0	.246	-.246	.025
6	0.301	0.477	.477	10	2	1.470	.530	.147
7	0.477	0.301	.602	10	1	1.338	-.338	.134
8	0.301	0.699	.301	10	1	.663	.337	.066
9	0.301	0.602	.477	10	1	.558	.442	.056
10	0.301	0.699	.000	10	2	2.618	-.618	.262
11	0.477	0.699	.301	10	0	.246	-.246	.025
12	0.301	0.602	.301	10	2	1.392	.608	.139
13	0.301	0.301	.602	10	2	2.591	-.591	.259
14	0.602	0.477	.477	10	0	.329	-.329	.033
15	0.477	0.602	.477	10	0	.200	-.200	.020
16	0.301	0.477	.477	10	2	1.470	.530	.147
17	0.301	0.699	.477	10	0	.222	-.222	.022
18	0.301	0.602	.301	10	2	1.392	.608	.139
19	0.301	0.602	.301	10	2	1.392	.608	.139
20	0.000	0.477	.602	10	2	2.682	-.682	.268
21	0.301	0.699	.301	10	1	.663	.337	.066
22	0.301	0.602	.301	10	2	1.392	.608	.139
23	0.000	0.778	.301	10	1	1.454	-.454	.145
24	0.000	0.699	.301	10	2	2.379	-.379	.238

The experimental data series of people's perception on waste problem are measured by Probit analysis using the parameters that is No problem, Slight problem, and Major problem. Here parameter Major problem has been used as independent variables whereas; other three parameters used as dependent variables (factors). As because the major problem of people's perception on waste management is a major concern than the other three parameters.

In Table no 26. it is observed that all the three independent factors are significant at 5% level of signifance. The standard error of No. problem is 0.851 which is less than other parameters. The calculated Z-value for all three independent factors is lying between upper and lower bound confidence interval.

In Table no 28.It is found that the goodness of fit test is used for testing the probit analysis. The chi-square value 5.401 is fitted well which is significant at 5% level of significance. The result reveals that though Major problem is a crucial factor for people's perception on waste management but Slight problem, problem are also dependent on people's perception on waste management and these four factors are closely related with each other with respect of waste management. The result also reveals that as the standard error of factor no problem is less (0.851) so it can be said that this factor does not have much impact on people's perception.

Table 30: Importance of Wastes Management

N=250

Importance of wastes management	Frequency	Percentage (%)
It is Important	196	78.4
Not Important	15	6
Do not Know	39	15.6

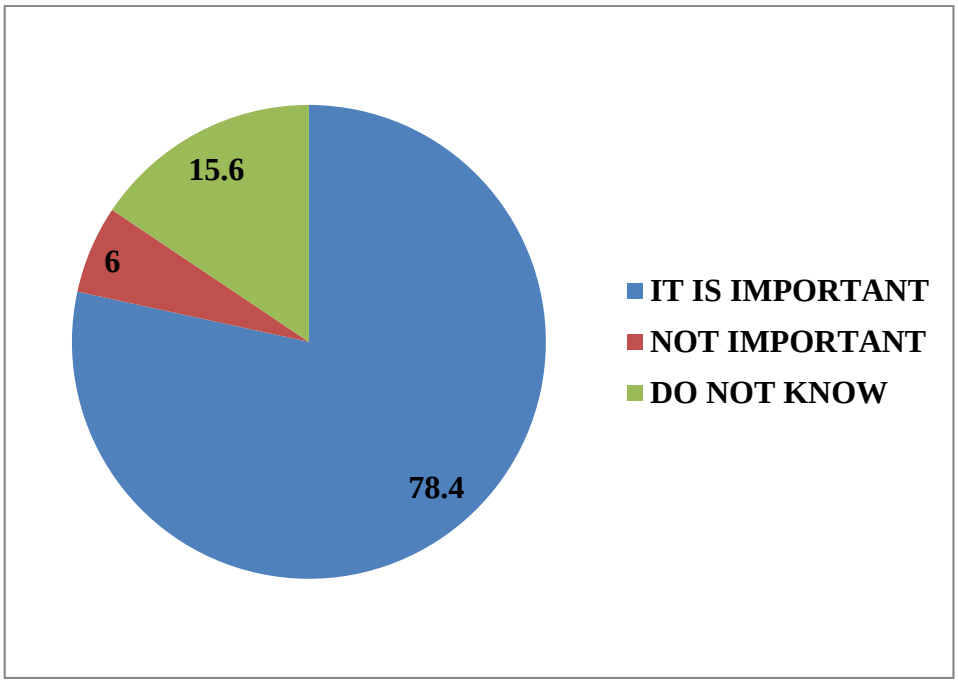

Fig. 18: Importance of waste management

This result shows about the importance of waste management. It is found that 78.4% of the respondents said waste management is important. According to them improper waste management can cause serious damage to health and environment and make city dirty and also slow down economy' growth rate. 6% of the respondents said waste management is not important and 15.6% of the respondents said they do not know about the importance of waste management.

Table 31: People's satisfaction with the present system of wastes disposal

People's satisfaction with present system of municipality wastes disposal	Frequency	Percentage (%)
Yes	103	41.2
No	147	58.8

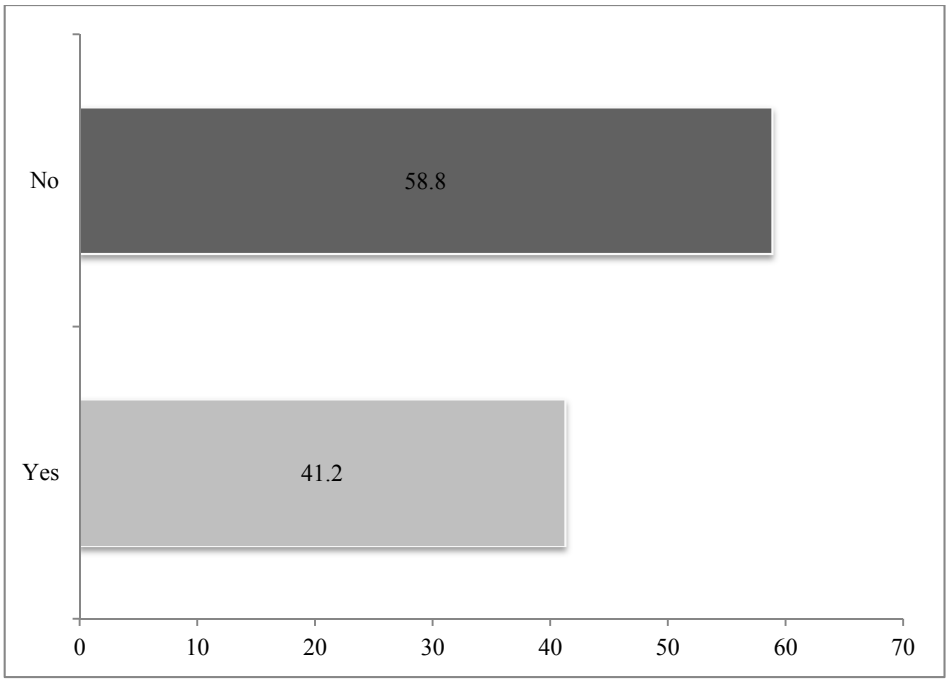

Fig. 19: People's satisfaction with present system of waste disposal

This result shows about the people's satisfaction with present system of municipality disposal. It is found that 41.2% of the respondents are satisfied with the present system of municipality disposal. 58.8% of the respondents do not satisfied with the present system of municipality disposal. According

to them present municipality disposal is still unhygienic for the citizen. Open dumping is still prevalent is many part of the town.

Table 32: People's awareness about Improper Wastes Management on Health

N=250

People's Awareness	Frequency	Percentage (%)
Unaware	8	3.2
Slightly Aware	103	41.2
Aware	139	55.6

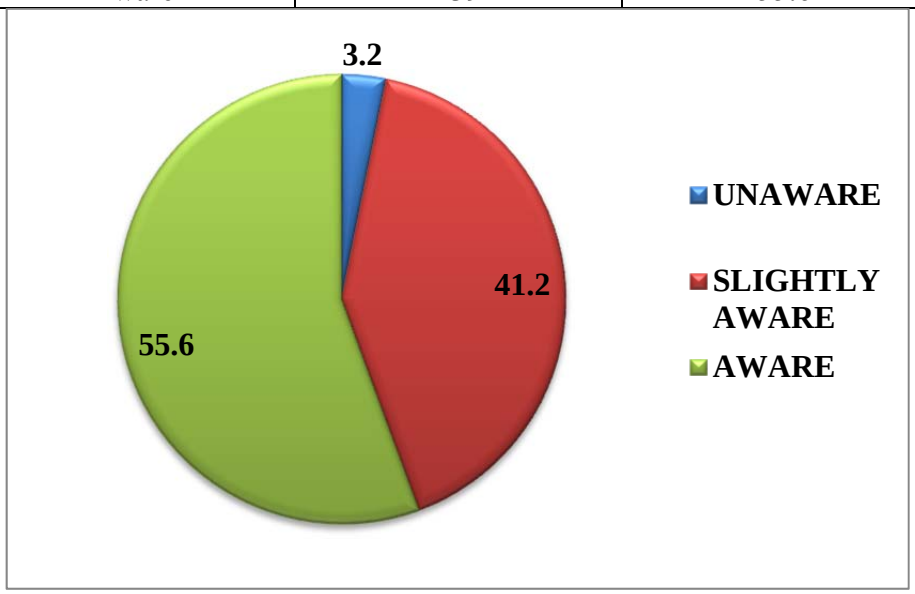

Fig. 20: People's awareness about improper waste management on Health

This result shows that people's awareness about improper waste management on health. It is found that 55.6% of the respondent aware about the impact of improper waste management on health. They said improper waste management can cause serious damage to health and cause serious

disease or illness. 41.2% of the respondents are slightly aware about the fact and 3.2% of the respondent is not aware about the impact of improper waste management on health.

Table 33: People's awareness about Improper Wastes Management on Environment

N=250

People's awareness	Frequency	Percentage (%)
Unaware	25	10
Slightly Aware	118	47.2
Aware	105	42
Not at all	2	0.8

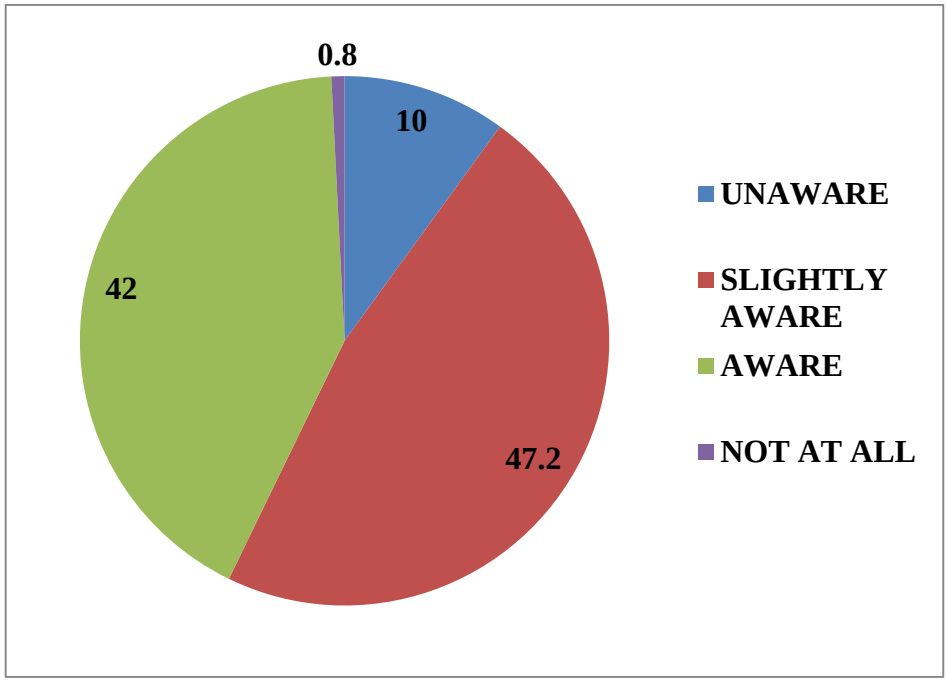

Fig. 21: People's awareness about improper waste management on Environment

This result shows that people's awareness about improper waste management on environment. It is found that 42%of the respondent aware about the impact of improper waste management on environment. They said improper waste management can cause serious damage to environment. It can break the ozone layer produce green house gases and also can produce toxic chemicals.47.2% of the respondents are slightly aware about the fact and 10% of the respondent not aware about the impact of improper waste management on environment and 0.8% of the respondent said improper waste management do not hamper environment.

Table 34: People's awareness about Improper Wastes Management on Economy

N=250

People's Awareness	Frequency	Percentage (%)
Unaware	37	14.8
Slightly Aware	140	56
Aware	65	26
Not at all	8	3.2

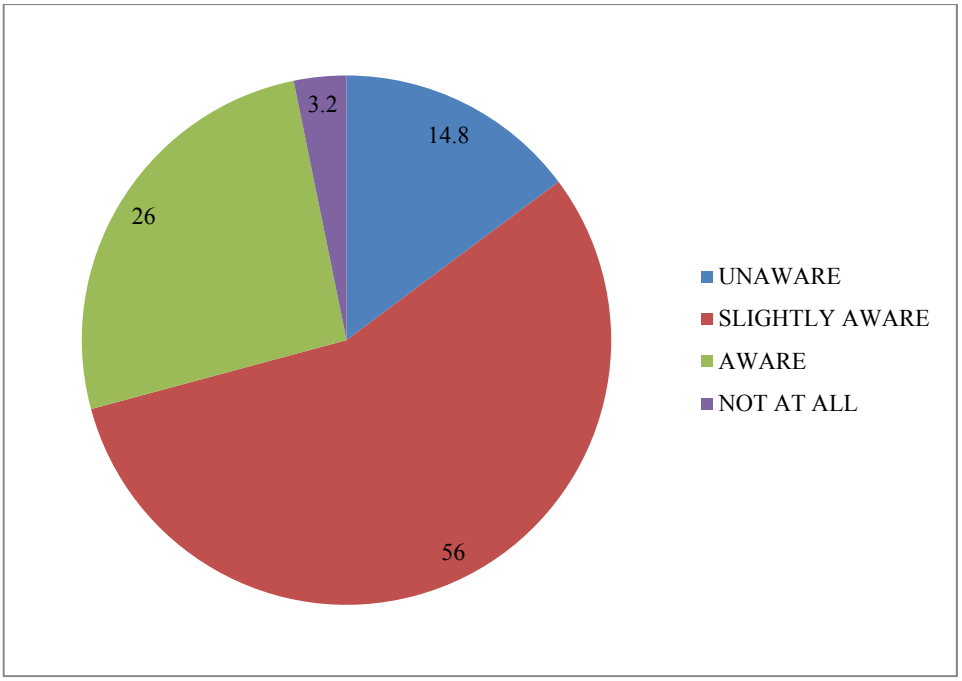

Fig. 22: People's awareness about improper waste management on economy

This result shows that people's awareness about improper waste management on economy. It is found that 22% of the respondent aware about the impact of improper waste management on economy. They said improper waste management can slow down the economy's growth and make the country dirty. 56% of the respondents are slightly aware about the fact and 14.8% of the respondent is not aware and 3.2% the respondent do not known about the impact of improper waste management on economy.

Chi square analysis with the impact of improper wastes management on Health, Environment and Economy

Table 35: Test of independence between the rows and the columns (chi square)

Chi square(observed value)	31.6277
Chi square (critical value)	5.9915
DF	2
p-value	<0.0001
alpha	0.05

Test interpretation
H0: the rows and the columns of the table are independent
Ha: there is a link between the rows and the columns of the table
As the computed p-value is lower than the significance level alpha=0.05, one should reject the null hypothesis H0, and accept the alternative hypothesis Ha. The risk to reject the null hypothesis H0 while it is true is lower than 0.01%

Contingency Table

	Un aware	**Slightly aware**	**aware**	**Not at all**
Impact of improper waste management on health	8	103	139	0
Impact of improper waste management on environment	25	118	105	2
Impact of improper waste management on economy	37	140	65	8

- Ho: There is no relationship among the impact of improper waste management on Health, Environment and Economy
- Ha: There is a link among the impact of improper waste management on Health, Environment and Economy.
- The computed p-value is lower than significance level alpha=0.05,
- As the observed value (31.6277) is greater than Table value (5.9915), so Ho is rejected and Ha is accepted. That means there is a link among the

impact of improper waste management on Health, Environment and Economy.

Table 36: Container used by the people for household wastes

N=250

Container of wastes	Frequency	Percentage (%)
Plastic Bag	62	24.8
Card board box	46	18.4
Open container	24	9.6
Closed Container	22	8.8
Basket	82	32.8
Open pile	14	5.6

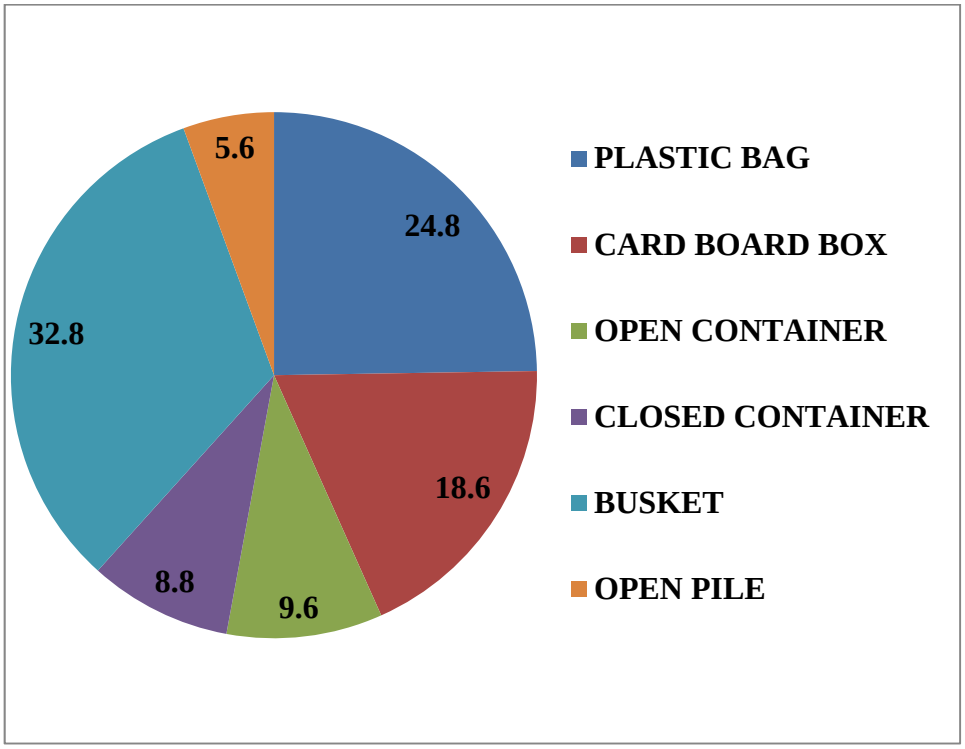

Fig. 23: Container used by the people for household wastes

The result shows that people uses different types of container for their wastes disposal. It is also shown that maximum people of the town uses basket for their wastes disposal i.e. 32.8%. 24.8% of the respondent uses plastic bag, 18.6% of the respondent uses card board box, 9.6% of the respondent uses open container, 8.8% of the respondent uses closed container for their wastes disposal while 5.6% of the respondent till now disposed their wastes with open pile system. This open pile is not eco friendly for the environment.

Table 37: House holding responsibility of wastes

N=250

Wastes House holding responsibility	Frequency	Percentage (%)
Everybody	76	30.4
Parents	39	15.6
Paid worker	111	44.4

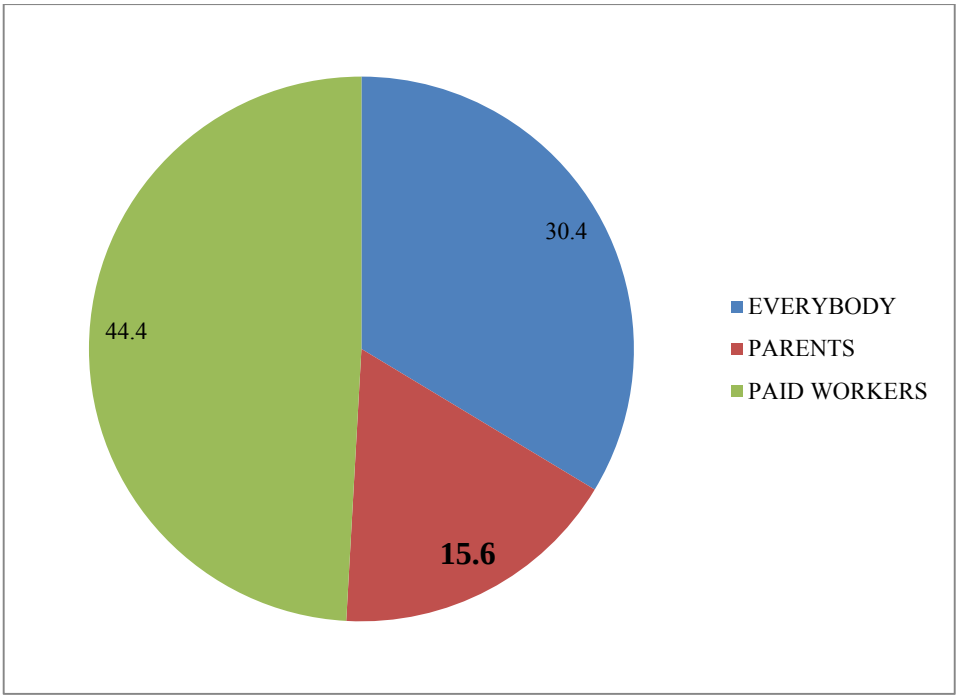

Fig. 24: House holding responsibility of wastes

The result of the study shows the house holding responsibility of wastes and according to respondent data it is shown that maximum responsibility is taken by the paid workers (44.4%). 30.4% of respondent said that everybody in their family take the responsibility, in nuclear family it is shown that maximum responsibility is taken by the parents(15.6%).

Table 38: Household wastes type

N=250

Wastes Type	Frequency	Percentage (%)
Plastic Packets	202	80.8
Plastic Bags	65	26
Garden or Yard wastes	195	78
Food Wastes	250	100

Paper Wastes	114	45.6
Glass Wastes	12	4.8
Metal Wastes	8	3.2
Others	21	8.4

Multiple responses have been considered

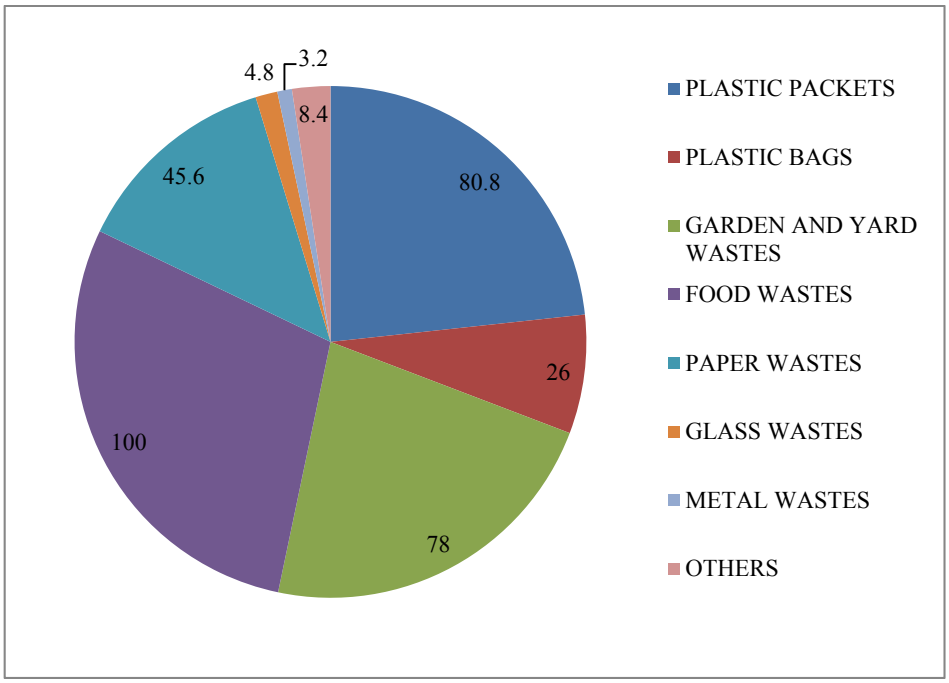

Fig. 25: Household wastes type

The result of the study shows the type of wastes generally found in every household. It is shown that maximum type of wastes generated in the household is food wastes(100%), 80.8% of plastic wastes generated in household, 45.6% of paper waste generated in household and 78% garden and yard waste, 26% plastic bags, 4.8% glass wastes, 3.2% metal wastes

and 8.4% other types of waste generated in household. Food wastes and garden yard wastes can be converted to make composting.

Table 39: Disease or Illness related to improper wastes management

N=250

People's Opinion on Disease or Illness	Frequency	Percentage (%)
Cause a Disease	190	76
Do not cause a Disease	20	8
Not Known	40	16

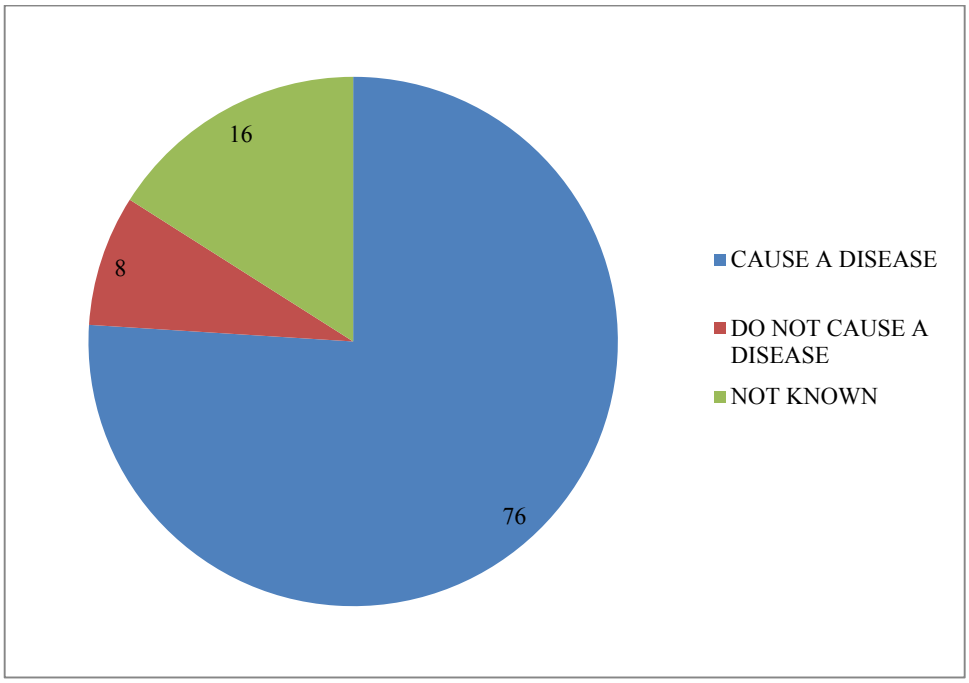

Fig. 26: Disease or Illness related to improper waste management

This result shows the people's opinion on disease or illness due to improper waste management. It is shown that 76% of the respondent said that improper wastes management can cause a disease or illness, 16% of the

respondent said that improper waste management do not cause a disease or illness while 8% of the total respondent not known about the disease or illness caused by improper waste management.

Table 40: Types of Disease/ Illness

N=250

Type of Disease/Illness	Frequency	Percentage (%)
Malaria	160	64
Diarrhea	216	86.4
Typhoid	36	14.4
Others	22	8.8

Multiple responses has been considered

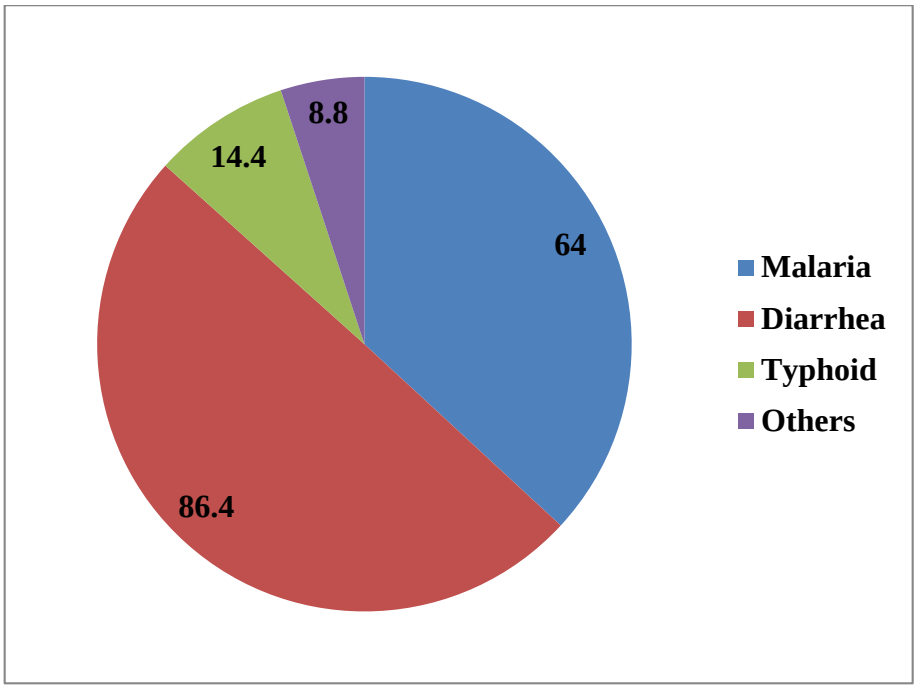

Fig. 27: Types of disease or illness

This result shows the types of disease or illness can be caused by the improper waste management. It is found that 86.4% of the of total respondent said that improper waste management can cause Malaria, 64% of the total respondent that said that it can cause Diarrhea, 14.4% said that it can cause Typhoid and 8.8% of the respondent said that it can cause other disease or illness.

Table 41: Medium/ Sources of Information regarding wastes management

N=250

Sources of Information	Frequency	Percentage (%)
Radio	46	18.4
Television	201	80.4
Newspaper	165	66
Family/Friend	94	37.6
Others	63	25.2

Multiple responses has been considered

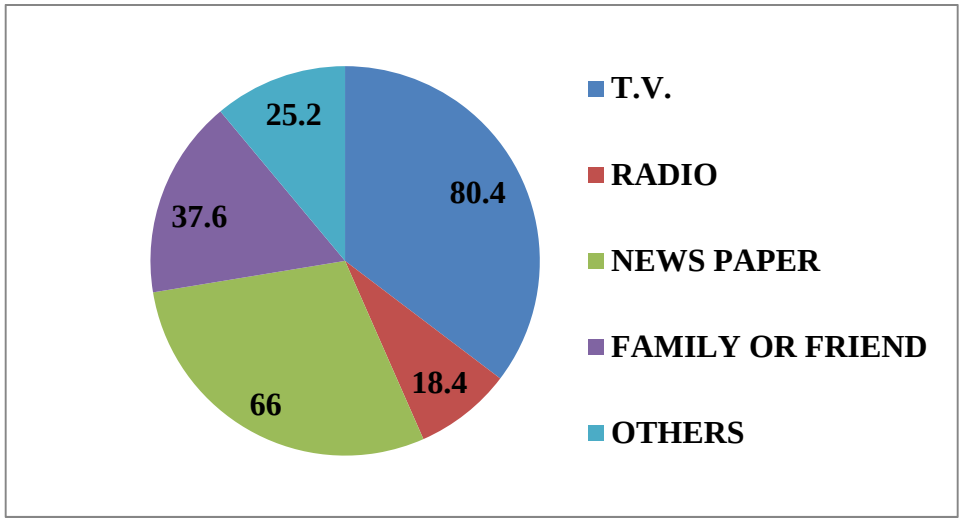

Fig. 28: Medium or source of information regarding waste management

This result shows the medium or source of information regarding waste management. It is found that 80.4% of the respondent gathered information through Television, 66% of the respondent gathered information through News paper, 37.6% of the respondent gathered information through family or friend, 25.2% of the respondent gathered information through other source and 18.4% of the respondent gathered information through radio.

Table 42: People's Knowledge on Recycling of Wastes

N=250

Knowledge on Recycling	Frequency	Percentage (%)
Fully Known	95	38
Known Little	135	54
Not at all	20	8

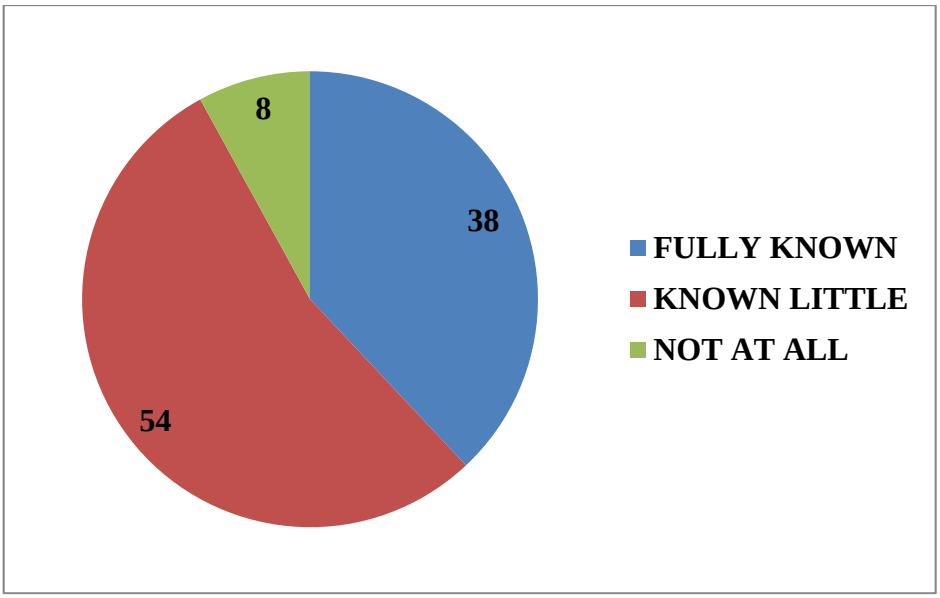

Fig. 29: People's knowledge on recycling of wastes

This result shows about the people's knowledge on recycling of waste. It is found that 54% of the respondents known little about recycling of waste, 38% of the respondents fully known about the fact. They said in jalpaiguri town there should have some recycling facility where waste material can be recycled or can be reused. On the other hand 8% of the respondents do not know about waste recycling.

Table 43: People's Knowledge on Composting

N=250

Knowledge on Composting	Frequency	Percentage (%)
Nothing	22	8.8
Known Little	130	52
Known Much	98	39.2

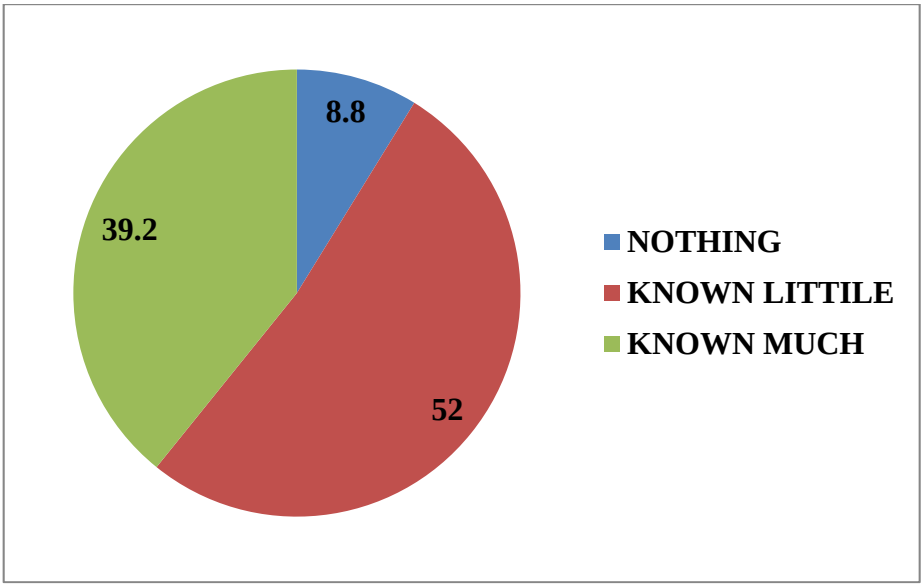

Fig. 30: People's knowledge on composting

This result shows about the people's knowledge on composting. It is found that 52% of the respondents have little knowledge on composting, 39.2% of the respondents have much knowledge on composting and they said food waste or garden or yard waste can be used to make composting, 8.8% of the respondents do not even know about composting

Table 44: People's Eagerness to Learn Composting

N=250

Eagerness to learn composting	Frequency	Percentage (%)
Very much Eager	5	2
Eager	30	12
Slightly Eager	102	40.8
Not Eager	100	40
Not Eager at all	13	5.2

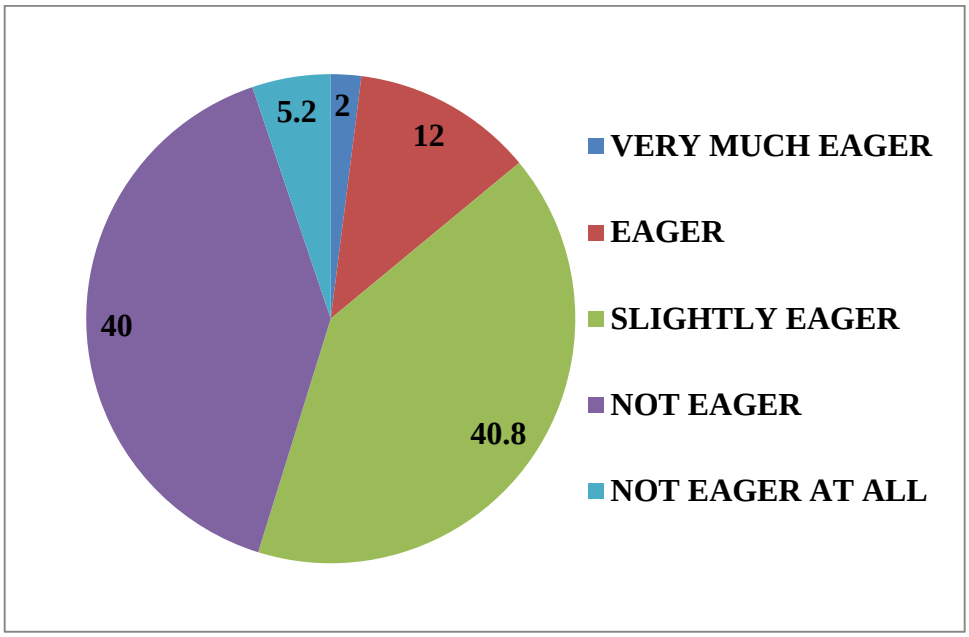

Fig. 31: People's eagerness to learn composting

This result shows the people's eagerness to learn composting. It is found that 40.8% of the respondents slightly eager to learn composting, 40% of the respondents no eager to learn composting. According to them time is an important factor and they do not have enough time to learn composting. 12% of the respondents have eager to learn composting. According to them it will help to earn extra income for their family and also beneficial for kitchen and flower gardening. 5.2% of the respondents are very much eager to learn composting, and 2% of the respondents not eager at all to learn composting.

Possibility of recycling of Waste for Agricultural Uses

Table 45: Nursery in the wards

Word no	Total no. of nursery	No. of nursery men	Total amount of organic manure sold per day (in kg)	Total income from selling of organic manure (Rs per day)
1	2	6	20	200
3	3	9	10	100
4	2	6	20	200
8	2	6	20	200
11	1	2	10	100
15	1	2	5	50
20	2	7	20	200
21	1	3	5	50
24	1	4	10	100
25	2	6	30	300
Total	17	51	150	1500

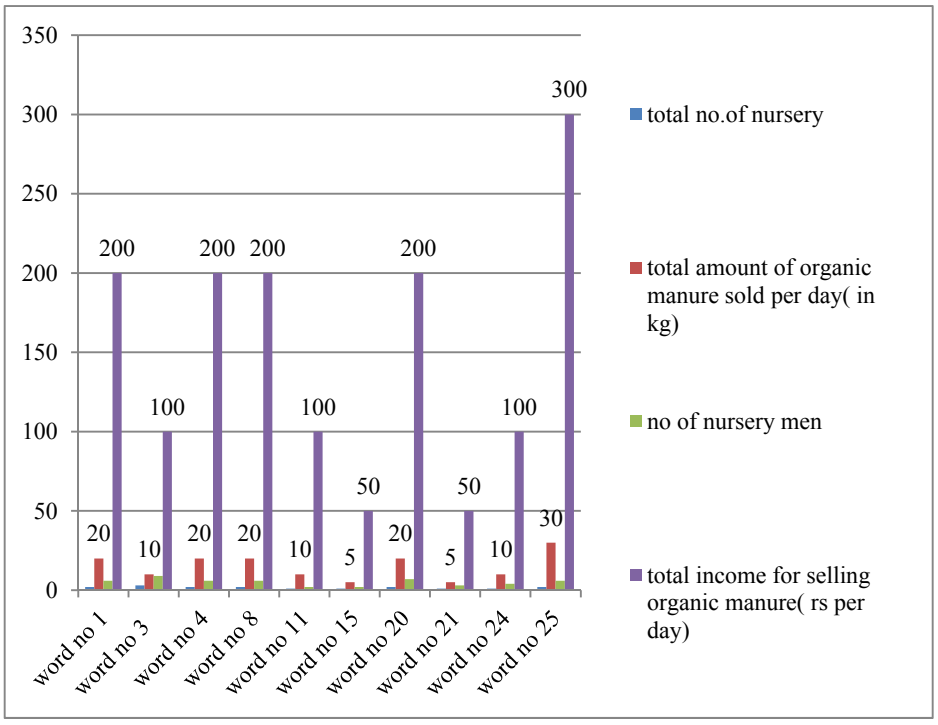

Fig. 32: Total number of nursery with total amount of organic manure sold per day

This result reveals that among 25 wards in the Jalpaiguri town there are total 17 numbers of nurseries present. Ward no 1 has 2 nurseries and total 20 kg organic manure sold per day. Ward no 3 have 3 nurseries and total 10 kg of organic manure sold per day. Ward no 4 have 2 nurseries form which total 20 kg of organic manure sold per day. Ward no 8 have 2 nurseries and from which 20 kg of organic manure sold per day. Ward no 11 has 1 nursery and 10 kg organic manure sold per day from that nursery. Ward no 15 have 1 nursery and from which 5 kg organic manure sold per day. Ward no 20 have 2 nurseries and from which 20 kg organic manure sold per day.

Ward no 21 has 1 nursery and 5 kg of organic manure sold per day from that manure. Ward no 24 has 1 nursery and from which 10 kg organic manure sold per day. Ward no 25 have 2 nurseries and 30 kg of organic manure sold per day from that nursery. It is estimated that total 150 kg of organic manure sold per day from 17 nursery of the town. The price of 1kg of organic manure is now Rs. 10/ kg. If we multiply it with total organic manure sold from all nurseries we can find that they earn Rs. 1500 per day that means 45,000 per month. If food wastes, vegetable wastes can be converted to organic manure that will help them to augmenting their livelihood security and family income.