International Journal of Advanced Scientific Research
ISSN: 2456-0421; Impact Factor: RJIF 5.32
www.allscientificjournal.com
Volume 1; Issue 5; August 2016; Page No. 01-08

An analysis of rural sanitation condition with special reference to bapatla rural mandal of Guntur district in Andhra Pradesh

Dr. Ericharla Raju

Post Doctoral fellow, Dept. of Economics, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India

Abstract
In the present article an attempt is made to examine sanitation situation of the respondents in the Bapatla rural mandal of Guntur District in Andhra Pradesh. The concept of sanitation connotes a comprehensive definition, which includes liquid and solid waste disposal, food hygiene, personal, domestic and environmental hygiene. In this research I found that 92.5 per cent of respondents are agriculturists, The average income earned by respondent's family is Rs. 39,075/- The average annual expenditure by the respondents family is Rs. 34,616/- The average debt of the respondent's family is Rs. 18,202/- In this research shows the poor level of drainage system and roads in the villages. 59.2 per cent are using open field for toilet purposes. Majority of the respondents felt that there are mosquito problem in their area. A large majority of the respondents feeling environment around them is neat and clean, which is an indicator of health in the society.

Keywords: Rural Sanitation**,** drinking water, solid waste disposal, environmental hygiene

1. Introduction

The term sanitation has been interpreted differently in different countries and at different times. A WHO Expert Committee defines sanitation as the control of all those factors in man's physical environment that exercise or may exercise a deleterious effect on his physical development, health and survival. The concept of sanitation connotes a comprehensive definition, which includes liquid and solid waste disposal, food hygiene, personal, domestic and environmental hygiene. Although the concept of sanitation has undergone qualitative changes during the years, there has been very limited change in the sanitation condition of rural India.

The urgency for sanitation in the rural environment stems from the fact that the rural poor live in informal settlements where sanitation facilities are particularly important for children's health and personal dignity. Demand for sanitation services has remained low, as livelihood priorities have been more pressing. There is a pressing need to get Governments and society to recognize the appalling toll created by poor sanitary conditions in rural areas. In addition to the health hazard, lack of sanitation facilities causes a great inconvenience to the people particularly women in the rural areas. In the absence of proper sanitation, people suffered from high levels of infectious diseases leading to high incidences of morbidity and mortality. This directly affected the ability of a country to maintain an efficient economy and implied great personal suffering among infected individuals and their families [1]. More than a third of world population (about 2.4 billion people) lacked access to adequate sanitation facilities and four out of five of these unnerved people lived in Asia [2]. Inadequate sanitation like unsafe disposal of human excreta, open defecation, lack of infrastructure (sewerage, drainage/sullage), and absence of hygiene management constitute a major threat to the health of the people. In the present article an attempt is made to examine sanitation situation of the respondents in the Bapatla rural mandal of Guntur District in Andhra Pradesh.

1.1 Objectives

Main Objectives the Present Article are

1. To examine the occupation and economic conditions of respondents in Bapatla rural Mandal of Guntur District
2. To examine the sanitation conditions (environment neat and clean) in the Bapatla rural Mandal of Guntur District
3. To examine the Drainage system and Toilet facility in study area.
4. To examine the drinking water facilities in study area

1.2 Methodology

Sources of Data

The sources of data are broadly divided into two categories namely primary source and secondary source. Research studies can be conducted either through primary data, or secondary data or both. In the present study both primary and secondary data are used.

Primary Data

The primary data can be collected through field survey either through interview schedule or a questionnaire. In the present study, an attempt is made to collect the primary data on Sanitation condition through a structured questionnaire framed for the purpose.

Secondary Data

The secondary data needed for the present study has been collected from various books, journals, reports published by various authors/commissions. In addition, data was collected from the works of various individual scholars and websites.

Selection of Sample and Study Area

For the present study, Guntur district of A.P and Bapatla Rural Mandal of Guntur District, was selected purposively. In Bapatla Mandal, there are 25 villages. Out of them three villages were purposively selected comprising 12 per cent of

the total villages of the mandal. Three villages selected are, Narasayapalem, Kankatapalem and Jammulapalem. There are 3460 households in these 3 villages and again, 120 households (3.4 per cent) were selected for the study. The following table shows the population households, sample number of households selected for the study. These villages represent high, moderate and low category of development respectively. In this research discus about the sanitation condition of the Bapatla Rural Mandal of Guntur District.

2. Village of the Respondent

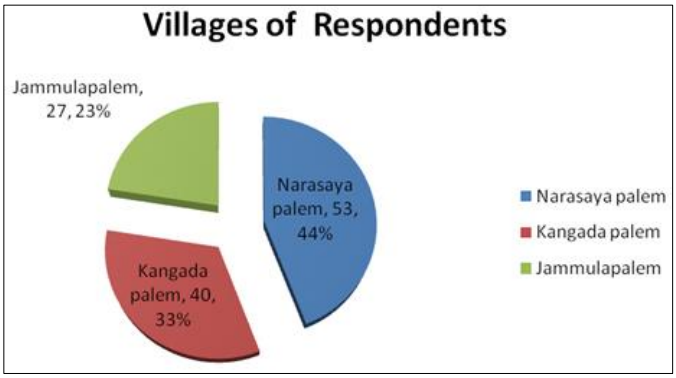
The present study was conduct in the rural area of Bapatla Mandal. Only, three villages were selected randomly in view of money and time involved in the survey.

Table 1: Village of the Respondent

S. No.	Village	Number	Percent
1	Narasaya palem	53	44.2
2	Kangada palem	40	33.3
3	Jammulapalem	27	22.5
	Total	120	100.0

***Source*:** primary data

An analysis of the table 1 shows the village of the respondents where the respondent is staying. Out of 120 respondents, 53(44.2 per cent) of the respondents belong to Narasayapalem village, 40(33.3per cent) of the respondents to Kangadapalem and the remaining 27(22.5 per cent) to Jammulapalem. All these three villages belong to Bapatla Mandal of Guntur district, and selected as a sample for the present study. The general observation shows that Narasayapalem is relatively big village with high development, whereas Jammalapalem is relatively small village with low development among the three. Kangadapalem is at moderate level both in terms of population as well as development. The village of the respondent is represented in Fig 1.



***Source*:** Table.1

Fig 1: Village of the Respondent

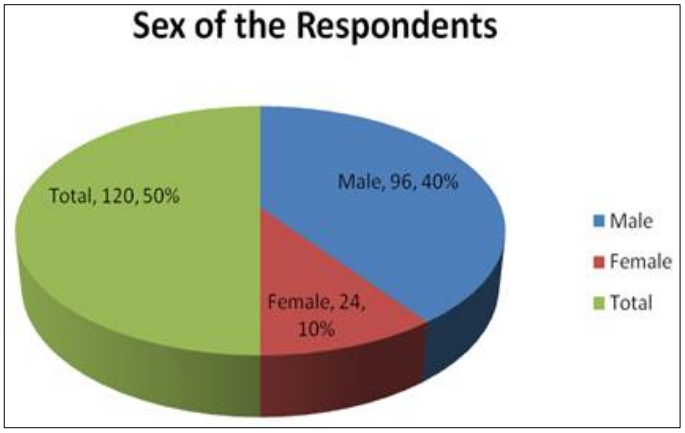
2.1 Sex of the Respondents

Table 2: Sex of the Respondent

S. No	Sex	Number	Percent
1	Male	96	80.0
2	Female	24	20.0
3	Total	120	100.0

***Source*:** primary data

In the present study household is the unit of analysis. Head of the household is interviewed in the present study irrespective of the sex of the respondent. An analysis of the table 5.2 shows the gender of the respondent. Out of 120 respondents, a big majority 96 (80.0 per cent) are males and the remaining are females. This is the general pattern that will be generally observed in all most all the studies. The sex of the respondents is represented in the Fig 2.



***Source*:** Table -2

Fig 2: Sex of the Respondent

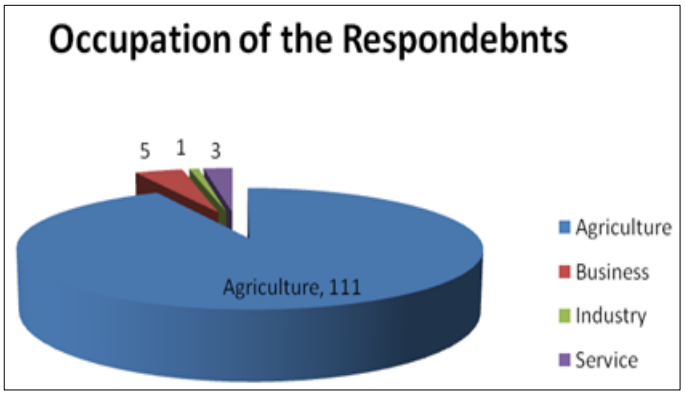
2.2 Occupation

Table 3: Occupation of the Family

S. No	Occupation	Number	Percent
1	Agriculture	111	92.5
2	Business	5	4.2
3	Industry	1	0.8
4	Service	3	2.5
5	Total	120	100.0

***Source*:** primary data

An attempt is made to know the occupation of the family. Out of 120 111 (92s.5 per cent) are agriculturists. Only very few are engaged in Business, Industry and Service. All these 3 put together only 9 (7.5 per cent) are engaged in these activities. Thus agriculture is the main or major occupation of the respondents. The occupation of the respondents' family is represented in the Fig No. 3



***Source*:** Table .3

Fig 3: Occupation of the family

Table 4: Main Occupation of the Agriculturists

S. No	Occupation	Number	Percent
1	(a) Own Agriculture	13	11.7
2	(b).Tenant	1	0.9
3	(c).Agricultural labour	49	44.1
4	(a)+(b)	4	3.6
5	(a)+(b)+(c)	21	19.0
6	(a)+(c)	18	16.2
7	(b)+(c)	5	4.5
	Total	111	100.0

***Source*:** primary data

An attempt is made to know the main occupation of the agriculturist in the present study. Out of 111 respondents majority 49 (44.1 per cent) are agricultural labourers. The tenant is only 1. About 21 (19.0 per cent) respondents belong to the category of own agriculture cum tenant cum agricultural labour. Another 18 (16.2 per cent) belong to own agriculture cum agricultural labourers.

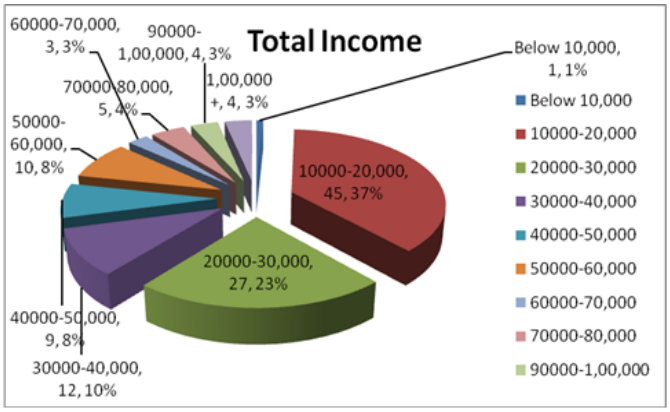
2.3 Income, Expenditure and Savings

Table 5: Total Family Income of the Respondent

S. No.	Income	Number	Percent	Cumulative Percent
1	Below 10,000	1	0.8	0.8
2	10000-20,000	45	37.5	38.3
3	20000-30,000	27	22.5	60.8
4	30000-40,000	12	10	70.8
5	40000-50,000	9	7.5	78.3
6	50000-60,000	10	8.3	86.7
7	60000-70,000	3	2.5	89.2
8	70000-80,000	5	4.2	93.3
9	90000-1,00,000	4	3.3	96.7
10	1,00,000 +	4	3.3	100.0
	Total	120	100.0	

***Source*:** primary data

An attempt is made to know total income of the family of the respondent's family. Out of 120 respondents, majority 45 (35.7 per cent) are earning between Rs. 10,000/- to 20,000/- followed by another 27 (22.5 per cent) between Rs. 20,000/- to Rs. 30,000/- . 78.3 per cent of the respondents are earning up to Rs. 50,000/-. Only 4(3.3 per cent) of the respondents are earning above Rs. 1,00,000/-. The average income earned by respondent's family is Rs. 39,075/- with a minimum of Rs. 10000/- and a maximum of Rs. 2,00,000/-



***Source*:** Table 5

Fig 4: Total Family income of the Respondent

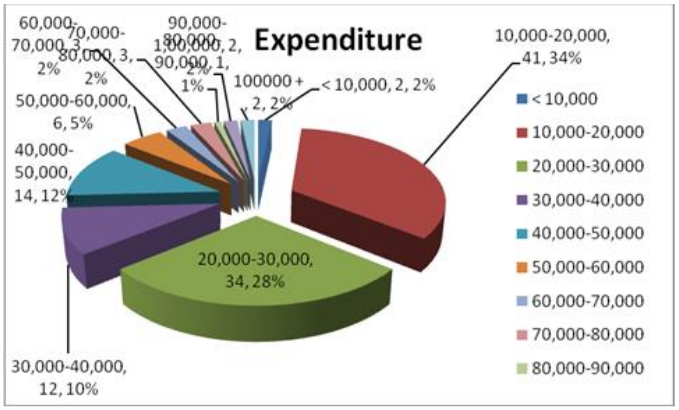
The total income of the respondents' family is represented in the Fig 4

Table 6: Total Family Expenditure of the respondent

S. No.	Expenditure Amount in Rs.	Number	Percent	Cumulative Percent
1	< 10,000	2	1.7	1.7
2	10,000-20,000	41	34.2	35.8
3	20,000-30,000	34	28.3	64.2
4	30,000-40,000	12	10	74.2
5	40,000-50,000	14	11.7	85.8
6	50,000-60,000	6	5	90.8
7	60,000-70,000	3	2.5	93.3
8	70,000-80,000	3	2.5	95.8
9	80,000-90,000	1	0.8	96.7
10	90,000-1,00,000	2	1.7	98.3
11	100000 +	2	1.7	100
	Total	120	100	

***Source*:** primary data

An attempt is made to know the family expenditure of the respondent. The table 5.26 shows that out of 120 respondents, majority 41(34.2 per cent) are spending between Rs. 10,000/- to Rs. 20,000/- per annum. Those are the people who are below the poverty line. Another 34 (28.3 per cent) are spending Rs. 20,000/- to 30,000/-. 85.8 per cent of the respondent are spending less than Rs.50,000/- only. The number of respondents spending above Rs. 1,00,000/- is only 2 (1.7 per cent). The average annual expenditure by the respondents family is Rs. 34,616/- with a minimum of Rs. 8,000 and a maximum of Rs. 1,50,000/-



***Source*:** Table - 6

Fig 5: Total Family Expenditure of the Respondent

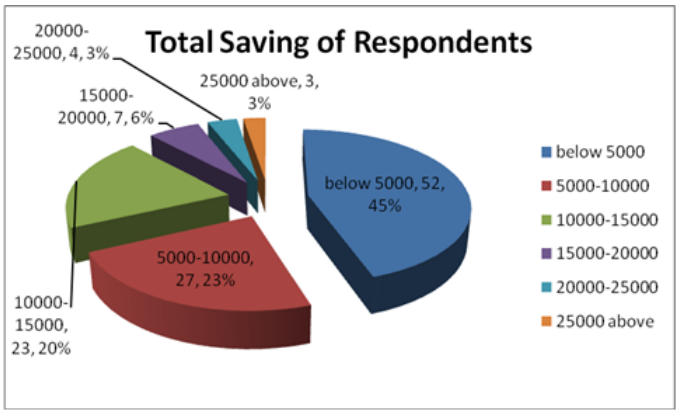
The annual family expenditure of the respondents has shown in the Fig No. 5.13.

Table 7: Annual Savings of the family

S. No.	Amount	Frequency	Valid Percent	Cumulative Percent
1	below 5000	52	44.8	44.8
2	5000-10000	27	23.3	68.1
3	10000-15000	23	19.8	87.9
4	15000-20000	7	6	93.9
5	20000-25000	4	3.4	97.3
6	25000 above	3	2.7	100
7	Total	116(96.7)		
8	No Savings	4(3.3)		
	Total	120		

***Source*:** primary data

An attempt is made to know annual savings of the respondent's family. Out of 120 respondents, 4 (3.3 per cent) do not have savings at all. Out of the 116 respondents, having saving a big majority 52 (44.8 per cent) are having annual saving of less than Rs. 5,000/-, another 27 (23.3 per cent) are having saving between Rs. 5,000/- and Rs. 10,000/-. 87.9 per cent of the respondents are having annual saving of less than Rs. 15,000/-. The respondents having more than Rs. 25,000/- savings is only 3 (2.7 per cent). The average annual savings of the respondent's family is Rs. 10,628/- with a minimum of Rs. 1,000/- and maximum of Rs. 50,000/-



***Source*:** Table 7

Fig 6: Annual Savings of the family

The annual savings by the respondents' family is represented in the Fig No. 6

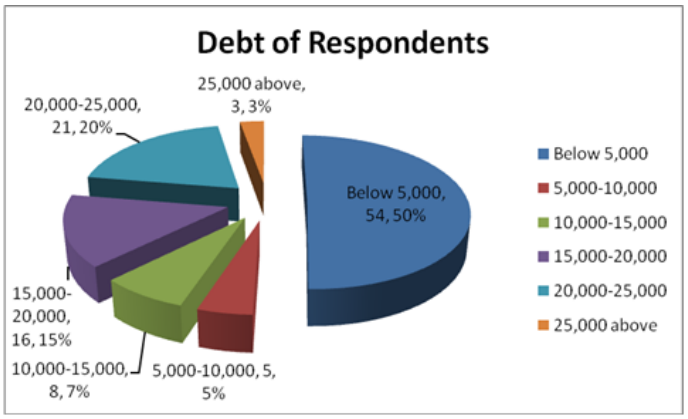
2.4 Debt Particulars

Table 8: Annual Debt of the Respondent's Family

S. No.	Debt amount in Rs.	Number	Valid Percent	Cumulative Percent
1	Below 5,000	54	50.5	50.5
2	5,000-10,000	5	4.7	55.2
3	10,000-15,000	8	7.4	62.6
4	15,000-20,000	16	14.9	77.5
5	20,000-25,000	21	19.6	97.1
6	25,000 above	3	2.9	100
7	Total	107(89.2)		
8	Not having debt.	13(10.8)		
	Grand Total	120		

***Source*:** primary data

An analysis of the table 5.28 shows the annual debt of the respondent's family. Out of 120 respondents, 13 (10.8 per cent) are only not having debt. Remaining respondents are having debt. It seems that debt is a common factor among the rural population. The distribution pattern of the debt of the respondents reveals that majority 54 (50.5 per cent) i.e. 50 per cent are having debt of less than Rs. 5,000/-. 55.2 per cent of the respondent are having debt of less than Rs. 5,000/-. And 77.5 per cent are having debt of is less than Rs. 20,000/-. However, the number of respondent's family having debt of more than Rs. 25,000/- is only 3 (2.9 per cent). The average debt of the respondent's family is Rs. 18,202/- with a minimum of Rs. 1000/- and maximum of Rs. 60,000/-. It shows that even though the high percentage of the respondent families are having debt, but the amount of debt is nominal.



***Source*:** Table -8

Fig 7: Annual Debt of the Respondent's Family

2.5 Possession of Consumer Goods

Table 9: Possession of Consumable goods by the Respondent

S. No	Consumable Goods	Yes	No	Total
1	Cooker	20(16.3)	100(83.3)	120(100.0)
2	Fan	108(90.0)	12(10.0)	120(100.0)
3	Bicycle	70(58.3)	50(41.7)	120(100.0)
4	Telephone	18(15.0)	102(85.0)	120(100.0)
5	Refrigerator	4(3.3)	116(96.7)	120(100.0)
6	Tractor	5(4.2)	115(95.8)	120(100.0)
7	Colour TV	9(7.5)	111(92.5)	120(100.0)
8	Motorcycle/Scooter	10(8.3)	110(91.7)	120(100.0)

***Source*:** primary data

An analysis of table 9 shows the consumable goods possessed by the respondents. Out of 120 respondents, respondents possessed cooker is only 20 (16.3 per cent), respondents possessed fan is 108(90.0 per cent), respondents possessed bicycle is 70 (58.3 per cent), respondents possessed telephone is only 18(15.0 per cent), respondent possessed refrigerator is only 4(3.3 per cent), respondent possessed tractor is only 5(4.2 per cent), respondents possessed Colour Television is 9(7.5 per cent) and respondents possessed motor cycle is 10 (8.3 per cent).

3.1 Environment Clean

Clean environment and better health are closely interlinked. In a locality where environment is clean the health of the society will also healthy. So, there is every need to maintain better environment for better health.

Table 10: Neatness of Environment

S. No	Response	Number	Percent
1	Yes	84	70.0
2	No	36	30.0
3	Total	120	100.0

***Source*:** primary data

An attempt is made to know the whether the environment in which they are living is neat and clean. Out of 120 respondents 84 (70.0 per cent) felt that environment in which they are living is neat and clean. However, 36 (30.0 per cent) felt negative. A large majority of the respondents feeling environment around them is neat and clean, which is an indicator of health in the society.

3.2 Persons Attending Sanitation Work

Generally municipal authorities appoint workers for cleaning the localities. Similarly in some Panchayats appoint sanitary workers for cleaning roads. The cleanliness in area dependents upon the number workers attending the work or the frequency of cleaning the locality.

Table 11: Numbers of sanitary workers attend work in the street every day

S. No	No. of workers	Number	Percent	Valid Percent
1	1	16	50.0	50.0
2	2	16	50.0	100.0
3	Total	32(26.7)		
4	Not respond	88(73.3)		
5	Grand Total	120		

***Source*:** primary data

An analysis of table 11 shows the number of sanitary workers that attend the work in street every day. Out of 120 respondents 88(73.3 per cent) did not answered this question and remaining 35(30.8 per cent) answered this question. Out of 32 respondents, 16 (50.0 per cent) felt that only one person attending the sanitary work and the remaining 50 per cent felt that two persons are attending the sanitary work. In general, most of the village's sanitary workers are only on paper but not in facts. There is every need to put it in practice.

3.3 Drainage

Providing drainage is one of the duties of the local administration may be Municipality or Panchayats. Extent of drainage and type of drainage indicate the sanitary situation.

An attempt is made to know the type of the drainage system prevailing in the street. Out of 120 majority 60 (50.0 per cent) did not answer this question.

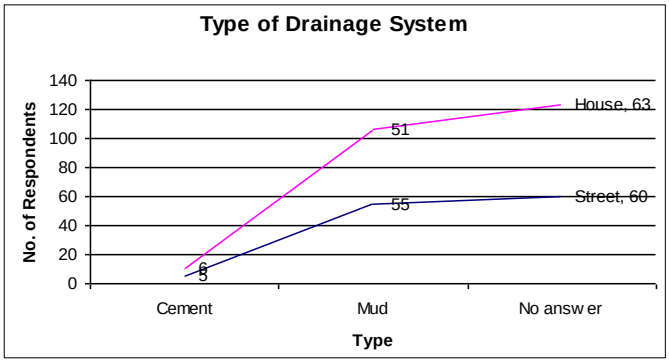
Table 12: Type of drainage system in your street

S. No	Drainage type	Number Street	Number at house
1	Cement	5(8.3)	6(10.5)
2	Mud	55(91.7)	51(89.5)
3	Total	60(50.0)	57(47.5)
4	No answer	60(50.0)	63(52.5)
5	Total	120	120

***Source*:** primary data

Out of 60 respondents, a big majority 55 (91.7 per cent) reported that the drainage system was constructed with mud and 8.3 per cent reported that the drainage system was constructed with cement. It shows the poor level of drainage system in the villages.

An analysis of table - 12 shows the type of drainage system prevailing in the house. Out of 120 respondents 63 (52.5 per cent) did not answer this question. Out of 57 respondents who answered this question, majority 89.5 per cent revealed that their drainage system consists of mud and 10.5 per cent revealed that their drainage system consists of cement. It again shows the poor planning of drainage system among the villages. The study shows that pucca drainage system is a rare phenomenon in rural areas. There is a need to provide pucca drainage system in rural areas also which will help improve the sanitary situation in the village.



***Source*:** Table 12

Fig 8: Type of drainage system in your street

The type of drainage system in the study area is represented in the Fig No. 1.

Table 13: Opinion About with regard to drainage system in the locality

S. No	Response	Number	Percent
1	Satisfied	27	25.0
2	Partially satisfied	20	18.5
3	Not satisfied	61	56.5
4	Total	108(90.0)	100.0
5	Not answered	12(10.0)	
	Total	120(100.0)	

***Source*:** primary data

An analysis of table .4 shows that out of 120 respondents 12 (10.0 per cent) of the respondents did not answer this question. Out of 108 (90.0 per cent) respondents who answered their question a big majority 61 (56.5 per cent) are not satisfied with the type of drainage prevailing in the area. Only 27 (25.0 per cent) are satisfied with the drainage system and another 20 (18.5 per cent) did not satisfied with the type of drainage system prevailing in the area.

3.4 Presence of Mosquitoes

Due to the unsanitary conditions prevailing in the locality the population of mosquitoes and other insects grows. They spread the epidemics. It is the responsibility of the health department within the Municipal Corporation and Panchayats in the village to improve sanitary conditions and check the spread of epidemics.

Table 14: Severity of mosquitoes in your area

S. No	Response	Number	Percent
1	Yes	112	93.3
2	No	8	6.7
3	Total	120	100.0

***Source*:** primary data

An attempt is made to know the severity of mosquitoes in the area. Out of 120 respondents, 112 (93.3 per cent) revealed that the mosquitoes problem is severe in their area. Only very few felt that it is not severe. Since, majority of the respondents felt that there are mosquito problem in their area, the government should come forward to eradicate mosquito problem in the villages.

3.5 Disposal of Garbage

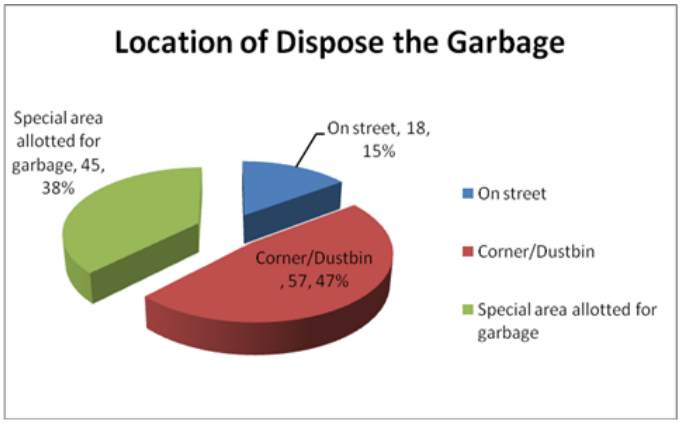
Removal of garbage on regular base is fundamental to the maintenance of sanitation on the roads. Garbage contains solid waste, which is a source of ill health to population.

Table 15: Location of dispose the garbage

S. No	Location	Number	Percent
1	On street	18	15.0
2	Corner/Dustbin	57	47.5
3	Special area allotted for garbage	45	37.5
4	Total	120	100.0

***Source*:** primary data

An attempt is made to know where the garbage is disposed by the respondent. Out of 120 respondents only 45 (37.5 per cent) are disposing the garbage in a special locality allotted for the purpose. Another 57 (47.5 per cent) are disposing at the road corner/dustbin and another 18 (15.0 per cent) are disposing on street itself. There is every need to create awareness among the respondents so that they can dispose the garbage at the proper place meant for the purpose.



***Source*:** Table 15

Fig 9: Location of dispose the garbage

3.6 Drinking Water Supply

The water supply is supplied by the gram panchayats by constructing overhead tanks in the villages. This will help to improve the sanitary situation in the village.

Table 16: Maintenance of water tank in your village

S. No	Response	Number	Percent
1	Not answered	16	13.3
2	Yes	22	18.3
3	No	82	68.3
4	Total	120	100.0

***Source*:** primary data

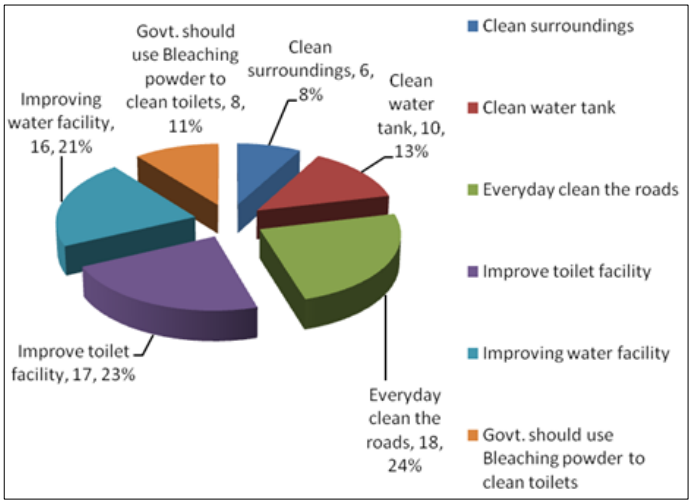
An attempt is made to know whether the water tank in the village is well maintained. Out of 120 respondents 16 (13.3 per cent) did not answer to the question. 82 (68.3 per cent) felt that it is well maintained. Only 22 (18.3 per cent) felt that it is well maintained. Since, study shows that water tanks are not well maintained by the authorities, there is every need to take proper step for better maintenance of overhead tanks in the village.

Table 17: Your suggestions for improving the sanitation in your area

S. No	Suggestions	Number	Percent	Valid Percent
1	Cannot say	45	37.5	37.5
2	Responded	75	62.5	1000
1	Clean surroundings	6	-	8.0
2	Clean water tank	10	-	13.3
3	Everyday clean the roads	18	-	24.0
4	Improve toilet facility	17	-	22.7
5	Improving water facility	16	-	21.3
6	Govt. should use Bleaching powder to clean toilets	8	-	10.7
	Total	75	100.0	100.0

***Source*:** primary data

An attempt is made to get the suggestions of the respondents for improving sanitation of the respondents. Out of 120 respondents 45 (37.5 per cent) did not answer to this question. Out of 75 respondents who answered this question a big majority 18 (24.0 per cent) felt that cleaning the roads every day will improve the sanitation of the locality. 17 (22.7 per cent) respondents felt that improving toilet facility will improve sanitation. 16 (21.3 per cent) of the respondent felt that improving water facility will improve the sanitation. These measures are adopted they will improve sanitation situation in these villages.



***Source*:** Table 17

Fig 10: Suggestions for improving the sanitation

3.7 Maintenance of the Well

In the rural areas, most of the water requirement is made by public or private wells. They are the route cause for contamination of water since, majority of the villagers, did not maintain the wells properly. There is no proper fencing to the well or proper chlorination of the well.

Table 18: Fencing for the Well

S. No	Response	Number	Percent	Valid Percent
(1)	(2)	(3)	(4)	(5)
1	Fencing	4		44.5
	No	5		55.5
	Wells	9	7.5	-
2	Not responded	111	92.5	-
3	Total	120	100.0	100.0

***Source*:** primary data

An attempt is made to know the number of respondents possessing well in the house. Out of 120, only 9 (7.5 per cent) posses wells in their house. The other people go to canal to fetch the water. Out of 9, only 4 (44.5 per cent) of the respondents posses fencing to the well. Fencing is very important for the well in order to keep the water purified.

Table 19: Chlorination of well by public health department

S. No	Response	Number	Percent
(1)	(2)	(3)	(4)
2	Yes	7	77.7
3	No	2	22.3
4	Total	9	100.0

***Source*:** primary data

An attempt is made to know whether the wells are chlorinated by public health department of the Panchayat. Out of 9, only 7 (77.7 per cent) of the respondents answered as positive and the remaining 2 (22.3 per cent) answered as negative.

3.8 Type of Fuel

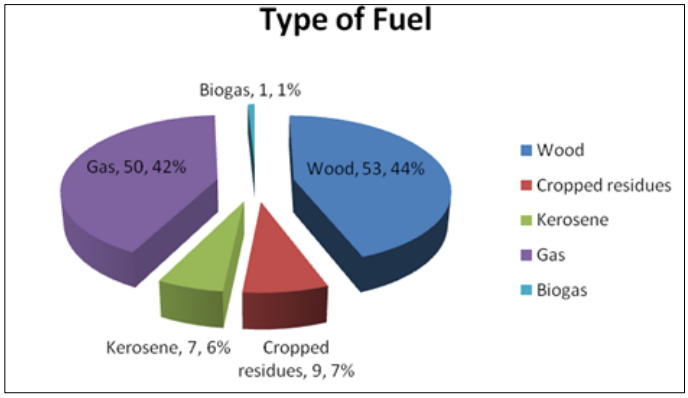
The type of fuel used for cooking indicates the said and economic status of respondents. The type of fuel used had health hazards.

Table 20: Type of Fuel used for the preparation of Food by Respondent Household

S. No	Type of fuel	Number	Percent
(1)	(2)	(3)	(4)
1	Wood	53	44.2
2	Cropped residues	9	7.5
3	Kerosene	7	5.8
4	Gas	50	41.7
5	Biogas	1	0.8
6	Total	120	100.0

***Source*:** primary data

An analysis of the table 11 shows the use of fuel for preparation of food in the respondents' houses. Out of 120 respondents, majority 53 (44.2 per cent) of the respondents are preparing the food by using wood. Another 50 (41.7 per cent) are using Liquid Petroleum Gas for the preparation of food. Only 1 (0.8 per cent) respondent utilizing Bio-gas, which is very cheap and non-polluted. So there a need to create awareness for use of Bio-gas by the respondents.



***Source*:** table 20

Fig 11: Type of Fuel used for the preparation of Food by Respondent Household

The type of fuel used by the respondent in the preparation of food is represented in the Fig No. 2.

3.9 Toilet facility

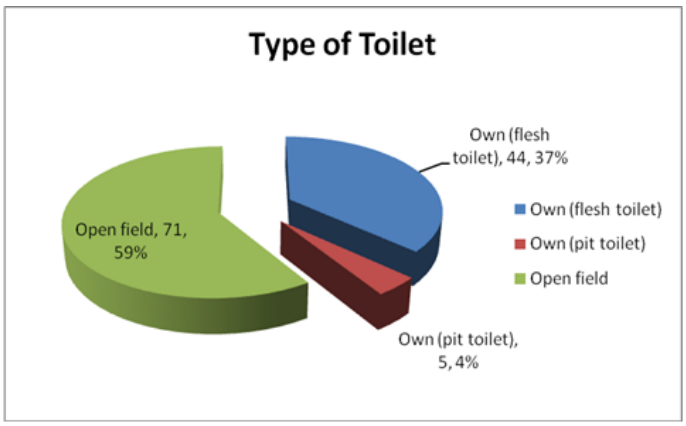
The public health and sanitation are very important for healthy life. There is a old proverb stating that health is wealth. Welfare of the individual depends upon the possession of sanitation and health facilities.

Table 21: Type of Toilet Possessed by the Respondents

S. No	Type	Number	Percent
(1)	(2)	(3)	(4)
1	Own (flesh toilet)	44	36.7
2	Own (pit toilet)	5	4.2
3	Open field	71	59.2
4	Total	120	100.0

***Source*:** primary data

An analysis of table 12 shows the type of toilet possessed by the respondents. Out of 120 respondents, a big majority 71 (59.2 per cent) use open field for toilet purposes. Only 44 (36.7 per cent) posses flesh toilet which is hygienic in nature. There is every need to create awareness among the respondents to use flesh toilets more in number for better health. Since, most of the respondents are only using open field for defecation, there is every need to educate the people to use more sanitary toilet in order to maintain good sanitary situation in and around the house and the village.



***Source*:** Table 6

Fig 12: Type of toilet possessed by the Respondents

The type of toilet possessed by the respondent is mentioned in the Fig No. 12

Table 22: Place of keeping the Cattle

S. No	Location	Number	Percent
1	Not answered	36	30
2	In the same compound of the house	29	24.2
3	In the separate area in the same house	40	33.3
4	Outside the house	15	12.5
5	Total	120	100

***Source*:** primary data

An attempt is made to know where the respondent keep the cattle. Cattle is a part of life in the rural areas. Out of 120, 36 (30.0 per cent) of the respondents did not answer this question. 40 (33.3 per cent) of the respondents revealed that the keep the

cattle in separate area in the same house premises. And another 29 (24.2 per cent) in the same compound of the house. Only 15 (12.5 per cent) use outside space area to keep the cattle. There is very need to educate the people so that the use outside house area keeps the animals.

4. Conclusion

I can say that sanitation is index of development; high level sanitation shows that high level development of the country/ state /village. In the lack of proper sanitation, people suffer from high levels of infectious diseases leading to high incidences of morbidity and mortality. I found in this research that 44.2 per cent of the respondents are preparing the food by using wood. Another 41.7 per cent are using Liquid Petroleum Gas for the preparation of food, only 0.8 per cent respondent utilizing Bio-gas, which is very cheap and non-polluted. So there is need to create awareness for use of Bio-gas by the respondents. Big majority 56.5 per cent are not satisfied with the type of drainage prevailing in the area. 37.5 per cent are disposing the garbage in a special locality allotted for the purpose. 59.2 per cent are using open field for toilet purposes. Only 36.7 per cent are posses flesh toilet which is hygienic in nature. There is every need to create awareness among the respondents to use flesh toilets more in number for better health. Since, most of the respondents are only using open field for defecation, there is every need to educate the people to use more sanitary toilet in order to maintain good sanitary situation in and around the house and the village. A large majority of the respondents feeling environment around them is neat and clean, which is an indicator of health in the society.

5. References

1. Richards, Edward P. The Role of Medical and Public Health Services in Sustainable Development, 2002. Website: http://www.eli.org.
2. Caircross Sandy. Sanitation in the Developing World: Current Status and Future Solutions. International Journal of Environmental Health Research. 2003; pp. S123-S31.