ISSN: 2278-4632
Vol-11 Issue-10 No.02 October 2021

Economic and Health Damages from Inadequate Sanitation: Experience from Rural Villages

B. Suresh Lal, Professor of Economics & Project Director-IMPRESS, Department of Economics
Kakatiya University, Warangal- Telangana State-India

Abstract:

Poor water quality and lack of access to improved sanitation continue to pose a significant threat to human health. The burden of disease analysis suggests that lack of access to safe water supply, sanitation and hygiene is the third most significant risk factor for poor health in developing countries with high mortality rates. Diarrhoea is the leading disease associated with unsafe water supply, sanitation and hygiene and is responsible for the deaths.

The study observed that out of the 150 respondents, 37% are 31-40 years, followed by 20-30 years with 32%. 130 (86.7%) respondents have got married, and 61% of the respondents are female. 85% adopted the nuclear family system, and 50% of respondents are illiterates in the study areas. 85% of respondents are daily wage earners, 37% are earnings rupees between 2000-2500 per month. 27% of respondents are landless labours, and 37% of households possess below 2 acres of land. 40% of respondents suffer from health problems, and 44% consume rice as their staple food. 62% of respondents have debts, and 33% got from money lenders. 62% of respondents do not have toilet facilities and go open defecation. 92% of respondents stated that toilet makes dignity, saves time and energy, saves their children school days, makes adolescent girls privacy, save wage loss, and toilet makes quality life.

Key words: Sanitation, health, economic conditions, women and dignity.

Introduction:

Open defecation is a significant health hazard and causes enormous hardship, especially to rural women. Government funds for constructing toilets must be supplemented with awareness campaigns to motivate ordinary people to do their part. Sanitation is vital for human health; it controls nearly 10 million child deaths globally per year. Sanitation and hygienic interventions are a must to reduce child mortality. Access to safe toilets alone can reduce child diarrhoeal deaths by over 30 per cent, Control of pneumonia mortality. Sanitation can save approx US$ 54 billion annually, along with reduces direct and indirect health costs ($38.5 billion), and saving time, boosts ecotourism revenues. Investment in improved drinking water supply and protecting water resources is the need of the hour for improving sanitation conditions, Lal (2020).

In 2017, 45% of the global population (3.4 billion people) used a safely managed sanitation service.31% of the global population (2.4 billion people) used private sanitation facilities connected to wastewater treatment.14% of the global population (1.0 billion people) used toilets or latrines where excreta were disposed of in situ, Lal(2021). Good health is a prerequisite to the human productivity and development process. A healthy community is an infrastructure upon which an economically viable society can be built. Unhealthy people can hardly be expected to make any valid contribution to the development of society, Lal(2021a).

Review of Literature:

Previous studies on health, sanitation, nutritional deficiency, poverty and women empowerment were presented to understand background of the paper and to find out research gaps of this study.

Health and Sanitation related-I

Health is now higher on the international agenda than ever before, and concern for the health of poor people is becoming a central issue in development. Long over before 1947, the statement of Mahatma Gandhi, "Sanitation is more essential than independence", backed by the Prime Minister of India in 2014 by reiterating "Toilet first-Temple next", indicates the pressing need towards the improvement of sanitation standards in India. The term sanitation defines "sanitation as the provision

of facilities and services for the safe disposal of human urine and faeces", Lal(2020). Anaemia was the most important clinical finding in the tribal population, followed by fever and other diseases such as malaria and upper respiratory tract infection commonly prevalent in tribal areas (Lal (2006).

Water-borne communicable diseases like gastrointestinal disorders, including acute diarrhoea, are responsible for higher morbidity and mortality due to poor sanitation, unhygienic conditions and lack of safe drinking water in the banjaras thandas. For example, the acute diarrheal problem was basically due to poor environmental hygiene, lack of safe drinking water, improper disposal of human excreta, Lal (2015).

Inadequate sanitation, poor hygiene and lack of safe water supply result not only in more sickness and death but also in higher health costs, lower worker productivity, lower school enrollment and retention rates of girls and perhaps most importantly, the denial of the rights of all people to live in dignity Kavitha(2013). Safe water and sanitation are the two primary components of hygiene, which have a solid cultural determination and a key influence on people's health, perhaps comparable only to food Lal (2010).

Nutritional Related-II

Micronutrient deficiency, deficiency of iodine, and dietary components are prevalent in both the villages, leading to impaired mental function, poor intellectual performance, lowered I.Q. and malnutrition Lal (2006). Thus, malnutrition is a double burden to the families of banjara and tribals. The majority of families are with low-income and low dietary consumption. Second, the consequences of malnutrition, including stunting, wasting and being underweight (low weight for age), result in an increased risk of death and illness for both pregnant women and children Lal (2015).

More than one-third of married Indian women have chronic energy deficiency; more than half of them are anaemic. Forty-five per cent of children under three are severely and chronically malnourished, Lal(2020a). Low body weight causes a higher incidence of toxaemia, prematurely, malnutrition, low-birth-weight baby shows a close association with poor weight gain. These tribal women's educational level is shallow (4.55%), Lal (2020a). More than 85% of the rural villages are not connected with proper drainage facilities. More than 82% of the houses do not have toilet facilities. Toilets are not available for close to 50% of the semi-urban population. In many areas, open defecation is still prevalent, and it is one of the leading causes of many diseases, Kavitha (2013).

Many adolescent girls miss one in four weeks of school because of a lack of facilities to deal with menstrual hygiene. Menstrual hygiene is a problem for many adolescent girls and women who lack the privacy to wash and dry menstrual rags properly. In some rural areas, superstition and tradition mean that rags are dried in the dark, away from the male view. About two in five rural women commonly experience vaginal infections caused by damp ragsKavitha(, 2013). The expenditure on health is an essential factor, which influences the demand for health care services. The pattern of expenditure on health by the various income group of respondents is presented, Lal(2011).

Poverty and Empowerment Related-III

The poverty of Family- women and female children are often denied equal access to shared resources when a family is in poverty. Female members, mainly female children, are victimised by the poverty of the Family. A low-income family naturally jeopardises female children Lal(2019). Debt Trap- nearly 72 per cent of Banjaras living in rural areas and practising/ working in agriculture as small farmers or coolies are in high debt traps. Non-beneficial cultivation led them into debt traps. Low productivity, high level of inputs cost, and lack of institutional credit facilities push them into Poverty Lal(2013a).

Sale of baby girls: There are incidents, and Banjaras level of debt and poverty compels them to sell their baby girls in Andhra Pradesh in general and Telangana region in particular, Lal(2015). Tribals are withdrawing children from school, started doing degrading jobs, old family members sent out, increased land mortgage, reduction in food consumption, depletion in mulch animals, increased debt, increased intensity of migration, unpaid hospital bills, fodder availability reduced

ISSN: 2278-4632
Vol-11 Issue-10 No.02 October 2021

and short term land transitions, Lal(2019)

Women empowerment is rotating around power for Political, Economical, Social and Cultural. It is sharing power equal to men, as per the religious- ideology and change-maker positively. Power should get away from men by educating women, making men understand that they are equal human beings in society. It is for equality that women had been in the society Lal (, 2015a). Empowerment of marginalised groups involves creating political space for these groups by the state and civil society. However, one can say that it is a process of liberation from artificial bondage through sustained struggle and resistance, Lal(2005).

Over the year, more than 90 per cent of the jobs in the healthcare sector are ideally suited for women, especially from the lower socio-economic strata, Naik(2013). Medical Tourism can be a much bigger business if we have infrastructure and networking among hospitals, hotels and tourism agencies, even in tribal areas Naik(2013).

Developing countries have benefited unequally from health gains, with many, especially in the Indian tribal community, continuing to experience high mortality. In addition, young adults and children experience substantial premature mortality. Poorer tribal groups have considerably worse health than the better off Lal(2010) within the country.

GDP for GDP: Good Dignity Practices for Gross Domestic Products is a core theme for our research project of Kakatiya to promote personal hygiene and sanitary facilities in general and women in particular. We want to create specific awareness and prepare village volunteers to sensitise rural and tribal people through skit play, pamphlets and door-to-door campaigns, how women and girls are frequently facing the problem of physical abuses at the time of open defecation Lal(2020). Life expectancy at birth and infant mortality are two critical indicators of a society's health. Furthermore, the billionth Indian baby is less likely to die in childhood, more likely to live a long life. She can expect to live beyond her 60th year, twice as long as her great-grandfather did, Lal(2020a).

Health services availability is dismal though Primary Health Centers (PHCs) and sub-centres because of the lack of specialists and the doctors' unwillingness to work in these remote areas. In the case of thandas, the availability of these services is very poor, Lal (2015).

Methodology:

The present research is based on the survey method. The researcher framed the interview schedules used in this study. The variables used in this study had been identified through the discussions held with the village head and a preliminary interview held with sample respondents in the village.

Based on the variables identified for the study, the interview schedule for the villagers was framed. The interview schedule for the village members, i.e., Sangolagi and Bhagdal Thanda of Bidar district in Karnataka State, were presented and based on the responses, the schedules were further modified. In addition, secondary data was collected from the related books, journals, periodicals annual reports.

Objectives:

The present study has the following as its objectives.

1. To study the profile of the sample respondents.
2. To examine the health problems faced by the women respondents in the study areas.
3. To investigate the adverse impact of inadequate sanitation facilities
4. To offer suitable suggestions for the improvement of sanitation facilities.

Sampling:

One hundred fifty (150) sample respondents were interviewed from two villages. During the study period 2021, each village 75 samples were randomly selected for the study. The study has done analysis keeping given objectives and hypotheses. Statistical tools were applied i.e., frequency distribution, percentage, standard deviation and Chi-Square Test. In accordance with the set-out objectives stated above the following hypotheses are formulated to be tested by applying chi-square test to the empirical data.

Hypotheses:

ISSN: 2278-4632
Vol-11 Issue-10 No.02 October 2021

1. Inadequate sanitation makes the burden of health-related expenditure and
2. Improved Sanitation facilities create dignity for women and reduce health-related expenditure.

Study Area Sangolgi and Bagdal Thanda:

Sangolgi is a village located in the Taluka of Bidar, in the district of Bidar of Karnataka State, India with a total population of 2879. There are 1489 male persons, 1390 females, and 392 children below six years. The percentage of the male population is 51.72%, female is 48.28%. and the child population is 13.62%. There are about 551 houses in the village and which is approximately 23km away from Bidar. Total literacy rate is 51.2% and Female literacy is 19.2%. More than 50% population is working and their mail occupation is agriculture as well labour.

BagdalThanda is a village in Bidar Taluk in Bidar District of Karnataka State. 21 km from Bidar. Total houses in the village are 1490. The total population is 8499, among these 48 per cent female and the remaining 52 per cent is male and child population. Total literacy is 56.4%. Female literacy is 23.9%. It is 622 kmaway from State capital Bangalore. Majority population is working in agriculture as cultivators and labour as well.

Results and Discussion:

This study primarily focuses on socio-economic, sanitation and health issues faced by rural people in the study areas of Songolgi and Bagdal Thanda of Bidar district in Karnataka State.

Table-1: Demographic and Education Information of Sample Respondents

Age Group	**Frequency**	**Percentage**	**Standard deviation**
20-30 years	48	32.0	.95606
31-40	56	37.3	
41-50 years	35	23.3	
51-60 years	9	6.0	
Above 61 years	2	1.3	
Total	**150**	**100.0**	**100.0**
Marital Status			
Married	130	86.7	.64440
Unmarried	3	2.0	
Widow	17	11.3	
Total	**150**	**100.0**	**100.0**
Sex			
Male	59	39.3	.49013
Female	91	60.7	
Total	**150**	**100.0**	**100.0**
Type of Family			
Nuclear Family	128	85.3	.35496
Joint Family	22	14.7	
Total	**150**	**100.0**	**100.0**
Size of Family			
Up to three members	29	19.3	.63231
4-6 members	105	70.0	
Above six members	16	11.6	
Total	**150**	**100.0**	**100.0**
Education Status			
Illiterate	75	50.0	1.02156
Primary	40	26.7	
Secondary	25	16.7	
Intermediate	6	4.0	
Under Graduate	4	2.7	
Total	**150**	**100.0**	**100.0**

ISSN: 2278-4632
Vol-11 Issue-10 No.02 October 2021

Source: A field study

The above table-1 reveals the age-wise distribution of sample respondents. It is observed that out of the 150 respondents, the highest number of 56 (37.3%) respondents is under the age group of 31-40 years, followed by the underage group of above 20-30 years with 48 (32%) respondents, 35 (23.3%) respondents are under the age group of 41-50 years, and 09 (6%) respondents are under the age group of 51-60 years. It reveals that marital status is distributed among sample respondents. It is observed that out of the 150 respondents, 130 (86.7%) respondents are married, followed by the widow among them with 17 (11.3%) andthree (02%) respondents are unmarried. The table reveals the gender-wise distribution of sample respondents. Out of the 150 respondents, the highest number of 91 (60.7%) of the respondents are female, followed by males with 59 (39.3%) of the respondents. The table reveals that most families adopted the nuclear family system, and their percentage is 85.3 (128 respondents), followed by the joint family system 14.7% (22 respondents). More than 70per cent (105 sample respondents) having four to five family members in the size of Family. 19% of respondents have below three family members, and the rest of the 11percent having six and above. Further, it shows that the educational qualifications of the respondents are as follows: 75 (50%) of the respondents are illiterate, followed by primary level education with 40 (26.7%), 25 (16.7%) secondary level education of the respondents, six (4%) and four (2.7%) respondents having an intermediate and undergraduate level of education respectively.

Table-2: Employment, Income and Land Particulars of Sample Respondents

Particular of Employment	**Frequency**	**Percentage**	**Standard deviation**
Daily-wage	127	84.7	
Regular	23	15.3	1.21881
Total	**150**	**100.0**	**100.0**
Earning Per Month			
1500-2000	33	22.0	
2000-2500	55	36.7	.86844
3000-3500	53	35.3	
Above 4000	9	6.0	
Total	**150**	**100.0**	**100.0**
How Much Land			
Below 2 acres	55	36.7	
3-4 Acres	50	33.3	.44716
5-7 Acres	4	2.7	
Landless	41	27.3	
Total	**150**	**100.0**	**100.0**

Source: A field study

Table-2 presents that employment particular of the sample respondents, 127 (84.7%) respondents are daily wage earners, followed by the regular with 23 (15.3%) respondents. The table reveals the monthly income of the sample respondents. Out of 150 respondents, 55 (36.7%) respondents are earnings 2000-2500, 35.3% of respondents are under the category of 3000-3500 earnings, another 22% respondents are under the category of 1500-2000 earnings, and the rest of six percentage respondents are earning above 4000 rupees monthly. Table-2 reveals that 36.7 per cent (55 respondents) households having below 2 acres of land, and another 33.3 per cent (50 respondents) possess 2-4 acres of land and 41 (27.3%) respondents are landless labours.

Table-3 provides information that 40 per cent (60 respondents) having health problems. Sixty per cent (90) respondents said that they do not have any diseases in the study area. However, 48 out of 150 respondents, 28 are suffering from B.P., followed by 19 respondents' diarrhoeas, seven are suffering from diabetes and six are suffering from anaemic health issues. The rest of 90 (60%) sample respondents do not have any health issues in the study areas. This table also provides the food consumption of rural people of bidar district 66 (44%) respondents are consuming rice as their stabl food, followed by 60(40%) respondents jowar and 24(16%) respondents consuming wheat as their food habit.

ISSN: 2278-4632
Vol-11 Issue-10 No.02 October 2021

Table-3: Health Problems of Sample Respondents

Do you have any Health Problems	Frequency	Percentage	Standard deviation
Yes	60	40.0	.50168
No	90	60.0	
Total	**150**	**100.0**	**100.0**
Health Problems			
Anaemic	6	4.0	2.60844
Diarrhoea	19	12.6	
BP	28	18.7	
Diabetic	7	4.7	
No Health Problems	90	60.0	
Total	**150**	**100.0**	**100.0**
Food Consumption			
Jowar	60	40.0	.25872
Rice	66	44.0	
Wheat	24	16.0	
Total	**150**	**100.0**	**100.0**

Source: A field study

Table-4: Debt Particulars of Sample Respondents

Do you have any Debts	Frequency	Percentage	Standard deviation
Yes	93	62.0	.48701
No	57	38.0	
Total	**150**	**100.0**	**100.0**
Source of Debts			
Moneylenders	50	33.3	1.77314
Friends& relatives	19	12.7	
Landlords	11	7.3	
Banks	15	10.0	
Not Applicable	57	38.0	
Total	**150**	**100.0**	**100.0**
Purpose of Debt			
Marriage	25	16.7	1.46237
Ceremonies	13	8.6	
Health problems	20	13.4	
Land Purchase	35	23.3	
Not applicable	57	38.0	
Total	**150**	**100.0**	**100.0**

Source: A field study

Table-4 examines the debt particulars of sample respondents in the study areas. 93 (62%) respondents said 'Yes' out of 150 samples, and 57 (38%) respondents said 'No', which shows that most respondents have debt for different purposes. For example, 35 (23.3%) respondents have a debt burden by purchasing land. 25(16.7%) and 13(8.6%), a total of 38 (25.3%) respondents spent their debt on ceremonies and child marriage of their family members, it almost one-fourth of debt for unproductive purposes. Another 20(13.3%) sample respondents spent their debt on the curative treatment of health. The table also explains the source of debt to the respondents. 50 (33.3%) respondents have got from money lenders, followed by 19(12.7%) respondents' friends and relatives.

ISSN: 2278-4632
Vol-11 Issue-10 No.02 October 2021

11(07.3%) respondents took from landlords, and only 15(10%) respondents got from institutional loans for land purchase.

Table-5: Sanitation related Problems of Sample Respondents

Do you have Toilet Facilities	Frequency	Percentage	Standard deviation
Yes	57	38.0	.48701
No	93	62.0	
Total	**150**	**100.0**	**100.0**
Where Do you go to the toilet?			
Open Fields	93	62.0	
Not applicable	57	38.0	1.97143
Total	**150**	**100.0**	**100.0**
What type of problems			
Snake Bite	15	10.0	
Scorpio Bite	13	8.7	
Insects	23	15.3	1.04451
Did not face problems	42	28.0	
Not applicable	57	38.0	
Total	**150**	**100.0**	**100.0**
Do you have a Drainage Facility?			
No	120	80.0	.47802
Incomplete	30	20.0	
Total	**150**	**100.0**	**100.0**

Source: A field study

Table-5 presents that inadequate sanitation facilities created problems. A question was asked, 'do you have sanitation facilities' they responded that 38 per cent, 57 respondents said Yes, another 62percent 93 respondents said No. 93 (62%) respondent out of 150 they go toilet on open fields. The table reveals that 23 (15.3%) respondents have faced the problems of insects' bites while defecating on open, another 15(10%) respondents faced snake bites and while 13 (8.7%) respondents experienced scorpion bites. On the other hand, 42(28%) respondents have no complaints. The table also reveals that having connected drainage facilities to their household, 120 (80%) respondents out of 150 said that 'No' drainage facilities exit. Moreover, 30(20%) respondents said that incomplete drainage.

Table-6: Sanitation and Dignity of Sample Respondents

Sanitation	Frequency	Percentage	Standard deviation
Toilet Makes Dignity			
Yes	138	92.0	.27220
No	12	8.0	
Total	**150**	**100.0**	**100.0**
Toilet saves Time and Energy			
Yes	138	92.0	.27220
No	12	8.0	
Total	**150**	**100.0**	**100.0**
Toilet saves Children School Days			
Yes	138	92.0	.27220
No	12	8.0	
Total	**150**	**100.0**	**100.0**
Toilet Makes Adolescent Girls			

ISSN: 2278-4632
Vol-11 Issue-10 No.02 October 2021

Feel Happy			
Yes	138	92.0	.27220
No	12	8.0	
Total	**150**	**100.0**	**100.0**
Toilet provide Privacy to Girls			
Yes	138	92.0	.27220
No	12	8.0	
Total	**150**	**100.0**	**100.0**
Toilet save Wage Loss			
Yes	138	92.0	.27220
No	12	8.0	
Total	**150**	**100.0**	**100.0**
Toilet Makes Quality Life			
Yes	138	92.0	.27220
No	12	8.0	
Total	**150**	**100.0**	**100.0**

Source: A field study

Table-6 presents that sanitation facilities provide women dignity and make the quality of life in society. Few questions were asked to sample respondents, and their responses were recorded and presented in the table. 138 (92%) respondents out of 150 stated that toilet makes dignity, toilet saves time and energy, toilet saves their children school days, toilet makes adolescent girls privacy and fee happy by having facilities, toilet save wage loss, and toilet makes quality life. On the other hand, 12(8%) sample respondents said that negatively.

Chi-Square Test Analysis-1

Chi-Square Tests			
	Value	Df	Sig. (2-sided)
Pearson Chi-Square	2.311	25	.000
Likelihood Ratio	106.7573	25	.000
Linear-by-Linear Association	122.212	1	.000
N of Valid Cases	150		
Df=25, Chi-square (0.05) =37.7			

Null Hypothesis: There is no influence between inadequate sanitation makes the burden of health-related expenditure. To find out the null hypothesis Chi-square test was performed. After testing the null hypothesis, it is found that the calculated chi-square value is less than the table value of chi-square. Hence Null hypothesis is rejected. Therefore, it can be inferred that all levels of respondents suffered from inadequate sanitation facilities.

Chi-Square Test Analysis-2

Chi-Square Tests			
	Value	Df	Sig. (2-sided)
Pearson Chi-Square	1.021	25	.000
Likelihood Ratio	101.624	25	.000
Linear-by-Linear Association	33.823	1	.000
N of Valid Cases	150		
Df=25, Chi-square (0.05) = 37.7			

Null Hypothesis: There is no influence between improved Sanitation facilities create dignity for women and reduce health-related expenditure. To find out the null hypothesis Chi-square test was performed. After testing the null hypothesis, it was found that the calculated chi-square value is less than the table value of chi-square. Hence Null hypothesis is rejected**.**

Sanitation related issues faced by Women respondents in the Study Area:

The study had noted opinions expressed by respondents as they had faced sanitation-related problems when they did not have toilet facilities in their house premises as case studies, and the same has been presented below;

Case Study-1

Kavitha is 32 years old, working as labour got married having two kids, they do not have any land resources for cultivation, un season she used to go to the cool due to the meagre economy able to construct toilet within house premises. She usually goes to the toilet on the open defecate evening, sometimes early morning, one fine evening she went open defecation. She got insect bites, immediately she runs away to home and checks the status and confirmed some insect bitted and approached RMP (Registered Medical Practitioner), got medicines for a week but suffered lot nearly two months from fever and swelling thighs. It was cost almost rupees 7000.00 (seven thousand).

Case Study-2

Lack of sanitation facilities in the rural and tribal villages creates numerous problems in general and women in particular. A rural woman has faced problems related to a sanitation facility. When she was 20 years old, she had a diarrhoea problem. They do not have a toilet facility in their house premises. She frequently went for open defecation due to diarrhoea issues. One fine morning she was unable to even walk to the hospital. She got completely ill and sick, which led to her gynaecological problem- pain in the abdominal, irregular periods, and bad smell and anaemia during discharge. She suffered nearly three years and spent an amount of Rs. 20,000/. It was revealed by Sarika, a 25 years old working wage-earner.

Case Study-3

Sulochana is 35 years old, working as wage-labour married having three children. Her husband Raju also wage-labour both are working in the agricultural field. Their economic position is poor and cannot offer construction of individual sanitary latrine in their house premises. Typically, ladies go evening for the toilet, and gents go to the morning toilet; sometimes gents go to another area, and ladies go to another area for open defecation. One day Sulochana faced a snake bite while open defecating. She ran immediately to her home and informed her husband; both went to the RMP doctor and from there to Government Civil Hospital to Bidar, got treatment, and was out of danger. After one week, she got discharged from the hospital again, working as everyday life. However, she had developed a psychological problem; she used to fear while going for open defecation every morning. However, after constructing an Individual Sanitary Pit Latrine, she is happy and feeling safe.

Conclusion and Suggestion:

Inadequate sanitation, poor hygiene and lack of safe water supply result not only in more sickness and death but also in higher health costs, lower worker productivity, lower school enrollment and retention rates of girls and perhaps most importantly, the denial of the rights of all people to live in dignity. Furthermore, 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.

Toilets are made available to rural households by viewing the problems of open defecation from a human interaction perspective. Community toilets in villages are encouraged, intrusting the maintenance to the panchayaths. Female dignity, modesty, confidence and privacy are to be viewed in the light of human values, and urgent action in this aspect would help. Safe drinking water is to be made available to the rural people with which most of the water-born diseases can be controlled.

Drainage facilities, safe domestic waste disposal, and discontinuation of open defecation can ensure a clean and neat rural India as the outskirts and environment remain pollution-free.

Health is wealth, and health reflects the level of human development. Therefore, India needs to do anything and everything in its strides to achieve overall development for health promotion. Health education, health awareness and community participation in health programmes can improve India's health status.

Acknowledgments: This research is carried out under MRP funded by ICSSR-IMPRESS, New Delhi to [BSL-P1869].

REFERENCES:

1. Lal B. Suresh, (2006); Health status and health practices among the tribals: A case study in Andhra Pradesh. Journal of Social Anthropology, Vol. 3 No.2 (December): 233-239. https://www.researchgate.net/publication/333631965
2. Lal B. Suresh, (2015): Socio-Economic and Health Issues of Banjaras in the Era of Globalisation: A Study in Telangana Tribal Villages, International Journal of Physical and Social Sciences (IJPSS), Vol-5, Issue-6, June, pp 195-211.https://www.researchgate.net/publication/277534999
3. G. Kavitha and Lal B. Suresh, (2013): Economic Impact of Inadequate Sanitation on Women's Health: A Study in Warangal District, International Journal of Environment & Development, Vol.10, No-2, July-December. https://www.researchgate.net/publication/276869279
4. Lal B. Suresh(2021); Freedom from Open Defecation: An Empirical Study from Two Adivasi Villages of Rural Areas, JuniKhyat, Vol-11 Issue-08 No.01 August, pp.108-119. https://www.researchgate.net/publication/353779080
5. Lal B. Suresh(2020); A Review of Understanding Sustainable Sanitation, International Journal for Innovative Research In Multidisciplinary Field, Volume - 6, Issue - 5, May.
6. Lal B. Suresh, (2010); The Economic Impact of HIV/AIDS: A Study in Tribal Areas in Andhra Pradesh, Indian Journal of Millennium Development Studies: An International Journal, 5(1-2), January & June, pp. 139-146. https://www.researchgate.net/publication/276866184
7. Lal B. Suresh (2021a); Impact of Globalisation on Socio-economic and Health Conditions a Quantitative Study of Adivasis, EJ-SOCIAL, European Journal of Humanities and Social Sciences, Vol. 1, No. 2, March. Doi: http://dx.doi.org/10.24018/ejsocial.2021.1.2.28
8. Lal B. Suresh, Ravindar Musham& Suresh Modem(2013a); Indebtedness among Tribal Farmers: A Case Study in Warangal District, B. Suresh Lal (Ed); Globalization Agricultural Development of Tribes Issues and Challenges, Lambert Academic Publishing. https://www.researchgate.net/publication/334680733
9. Lal B. Suresh (2015a): Socio-Economic Empowerment of Women in India: Issues For Prioritising Innovative Development Strategies, ELK Asia Pacific Journal of Social Sciences, Vol-1, Issue-4, ISSN 2394-9392, pp 134-143. https://www.researchgate.net/publication/339016963
10. Lal B.Suresh, Mrs A. Padma, (2005): Empowerment of Tribal Women in Andhra Pradesh. Southern Economist, Vol-44, no-15&16, December. Pp.23-26, ISSN: 0038-4046.
11. Lal B. Suresh, (2020a): Essays on Health Economics, Akhand Publishing House, New Delhi.
12. NTK Naik and Lal B. Suresh, (2013): Economic Analysis of Indian Medical Tourism (International Healthcare Destination), International Journal of Business Management Economics and Information Technology, Vol-5, Number-2, July-December.pp.259-277.
13. Lal B. Suresh, (2011): Economic Analysis of Healthcare Services: A Study in Tribal Areas of Andhra Pradesh – India, International Journal of Health Management and Information (IJHMI) Volume 2, Number 2, pp. 119-131.
14. Lal B. Suresh, (2019): Child Labour in India: Causes and Consequences, International Journal of Science and Research (IJSR), Vol.8, Issue-5, May, pp.2199-2206. www.ijsr.net

