

WORKING CONDITIONS OF SANITARY WORKERS IN NAGERCOIL MUNICIPAL CORPORATION

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Abstract : Sanitation is very important concept to understand “conditions that affect hygiene and health”. It is also another monopoly function to be under take by the municipality. Sanitation work involves removal of rubbish, sludge, night soil and dead animal's controls of tines and mosquitos, drain drainage and sweeping. Prevention is better than cure "an improvement is general sanitation in the inhabited areas of the cities and towns to provide salutary". The findings revealed that sanitation workers undergo several problems both physically and mentally. The problems in work place can be solved by providing equal rights as other government employees. Uplifting the underprivileged in terms of education, rights, power and employment improves the growth of the country. Providing safety measures for sanitation workers, conducting regular medical camps, prevention of manual scavenging, creating awareness about government schemes will definitely improve their quality of life. Social Workers can be appointed to provide psychosocial help to the sanitation workers.

IndexTerms – Sanitation, problems, prevention, awareness

INTRODUCTION

The World Health Organisation refers to sanitation as: “the provision of facilities and services for safe disposal of human urine and faeces”. Generally sanitation is understood as a system that promotes disposal of human and animal wastes, proper use of toilets and avoidance of open space defecation. Sanitary workers have worked an important role in improving the urban and semi-urban ecological environment and the urban modern civilization, meeting the needs of public desires for physical, spiritual, political, ecological civilization and implementing the social sustainable development. Public sanitation work involves garbage collection from households across a municipal area, dumping the city’s garbage in zonal dumping sites, sweeping of roads, cleaning drains. A sanitation worker has a dirty job, but it's one that most communities can't live without. Sanitation workers perform a valuable service to their communities collecting garbage and removing it to proper disposal areas such as dumps or landfills. A sanitation worker must be physically fit, so he can quickly climb in and out of large trucks and lift heavy trash containers. Sanitation workers routinely lift heavy objects and work in all weather conditions. The job is physically demanding. Those people are exposed to dangerous toxic and harmful substances. But this problem is not adequately addressed in the legal framework. The high court of Gujarat once made some comments in support of these workers' life, health and dignity. "The sewerage workers are the citizens of this country and they are entitled to enjoy fundamental right as provided in the Constitution of India. It is a cardinal principle of the service jurisprudence that the employer has to take adequate care of the safety and well being of his employee. He cannot expose and employee performing duties which are dangerous in nature and likely to adversely affect his health or life. Hence it is the employment who should provide him with all the safety measures and if he is not able to make such provision, he has to refrain from asking such employee to discharge these duties.

REVIEW OF LITRATURE

S. Rangamani (2015). Official estimates are not available for mortality or morbidity among sanitation workers (including manual scavengers) in India. Little is known about their health issues and health-seeking behaviour in the context of their occupational hazards (work practices and exposures). We attempted to understand the nature of health problems of sanitation workers using a lay epidemiological process. Health and safety of sanitation workers has been inadequately addressed in public health research. Sanitation work lacks specific protective regulatory guidelines to address health hazards unlike other hazardous occupations.

Chellamma, P *et al* (2015) conducted a cross sectional morbidity study among all sanitation workers corporation area. They studied the morbidity profile of sanitary workers in Thrissur Corporation, Kerala and to study the treatment seeking behavior in these persons. The study their practices regarding personnel protective measures. The were interviewed using pre tested structured schedule. Workers were interviewed after obtaining informed consent.

Anbarasu DJ *et al* (2015). The attitudes of sanitary workers are the real hindrances for their promotion and upward movement in the organisational hierarchy. This study is initiated after an initial survey conducted among sanitary workers in Trichy. The sanitary workers have no promotions and job enrichment till their retirement. This paper addresses the issue. A final study was initiated to know the reasons. The sanitary workers do not like to be trained for higher level jobs. However, the sanitary

workers are not willing. On the other hand, they want to be skilled workers. There is a fear over training and promotion prevailing among these women sanitary workers.

France Ncube, et al., (2017). The suggests the priority for exposure assessment with regard to total dust and bioaerosols should be focused on waste loaders and the truck cabins. Also, we observed mean summer temperatures higher than 33°C in most waste management areas and workers complained of headaches, sunburn, heat stress, excessive sweating, dehydration, and difficulties in concentration in assigned tasks. Consequently our study argues that in tropical countries it is better to perform summer waste collection services in early morning hours or at night when temperatures are cooler. Waste workers should be encouraged to take regular breaks and rest in cooler shades where oral rehydration fluids can be given to refresh them. In light of the results from our physical waste compositional analysis, our study concludes that municipal solid waste workers are exposed to diverse toxic, mechanical, and infectious hazards requiring sound mitigation measures.

METHODOLOGY:

The survey based descriptive and analytical study aimed at describing the status of the sanitary workers in the study area and to assess the working conditions of sanitary workers. Adequate sample size was used taking into account the size of the population in the study area. The required data is collected from the respondents using a structured interview schedule.

DATA ANALYSIS FROM SANITARY WORKERS

The primary data was collected from the 500 sanitary workers working in the Nagercoil Municipal Corporation. The secondary data were collected from available literature in books journals, research reports, and other published materials particularly meant for the sanitary workers. Gender wise, Age wise, Educational Qualification wise, Community wise, Number of years in the present occupation, Appointment of sanitary Workers, Number of working days, Number of hours working in a day, Nature of work performed by the Permanent and Temporary Sanitary Workers and Kind of facilities provided to Permanent and Temporary Sanitary works in Nagercoil Municipal Corporation.

Gender wise classification :

Permanent and temporary sanitary workers of different gender groups such as Male and Female have been working in the sanitary work. The following table defined.

Table 1 : Gender Wise Classification of Sanitary Workers

Sl. No.	Gender	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	Male	137	68.50	222	74	359	71.80
2	Female	63	31.50	78	26	141	28.20
Total		200	100	300	100	500	100

Source : Primary Data

The above Table 1 explains about the gender of the respondents 71.80 % of the respondents are Male and the remaining 28.20 % of the respondents are Female. Among the Permanent workers 68.50 % of the respondents are Male and 31.50 % of the respondents are Female. Among the Temporary Workers 74 % of the respondents are Male and 26 % of the respondents are Female. Male sanitary workers are more than the female sanitary workers in the sample respondents.

Age Wise Classification of Sanitary Workers

Age is an important factor in this project work. Age is more significant among females as generally their role also changes with their age. The household responsibilities and family status change with age. The age wise classification of permanent and temporary sanitary workers in the below table.

Table 2 : Age Wise Classification of Sanitary Workers

Sl.No.	Gender	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	18 - 28	8	4.00	44	14.67	52	10.40
2	29 - 39	41	20.50	112	37.33	153	30.60
3	40 - 49	78	39.00	86	28.67	164	32.80
4	50 - 59	61	30.50	48	16.00	109	21.80
5	Above 59	12	6.00	10	3.33	22	4.40
Total		200	100	300	100	500	100

Source : Primary Data

The above Table 2 explains about the age wise profile of sample respondents 32.80 %, 21.80%, of sanitary workers belong to the age group of 40-49, 50-59 years respectively. Among the permanent workers 39% of 40-49 years age group and 30.50 % of 50-59 years age group. Among the temporary workers 37.33 % of 29-39 years age group and 28.67% of 40-49 years age group.

Educational Qualification wise classification of sanitary workers

The major role of education over all development of any family and society. The educational qualification is classified as illiterates, primary level, High school, Higher Secondary and UG and above. This explained the below table.

Table 3 : Educational Qualification wise classification

Sl.No.	Education wise	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	Illiterate	87	43.50	70	23.33	157	31.40
2	Primary Level	58	29.00	86	28.67	144	28.80
3	High School	41	20.50	73	24.33	114	22.80
4	Higher Secondary	14	7.00	48	16.00	62	12.40
5	UG and above	0	0.00	23	7.67	23	4.60
Total		200	100	300	100	500	100

Source : Primary Data

The above table 3 shows 31.40% of sanitary workers coming under the classification of Illiterate and 28.80% of the respondents upto primary Level. Among the permanent workers 43.50% are Illiterate and 29% of Primary level education. Among the temporary workers 28.67% of Primary Level and 24.33% of High School education. It is clearly evident that the majority of 31.40% of the sample respondents are Illiterate.

Community wise classification of sanitary workers

The present study it is observed that the occupations are not fully community based. But the concentration of certain communities in certain occupation could be widely noticed. The following table explains below.

Table 4 : Community wise classification of sanitary workers

Sl.No.	Education wise	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	ST	54	27.00	54	18.00	108	21.60
2	SC	146	73.00	177	59.00	323	64.60
3	BC	0	0.00	46	15.33	46	9.20
4	Others	0	0.00	23	7.67	23	4.60
Total		200	100	300	100	500	100

Source : Primary Data

The above total 500 sample respondents have above belongs to SC community dominates 66.60% in the sanitary work, the above ST community belongs to 19.60%. The above data denoted that the SC and ST constitute 100 per cent in the Permanent workers. But the above data denoted the Temporary Workers belongs to SC Community 59.00%, ST community 18.00%, BC community 15.33 and Other Community 7.67%. Total 200 sample respondents of Permanent workers majority belongs SC and ST community only. But the total 300 sample respondents of Temporary workers belong SC, ST, BC and other communities involved in sanitary works. The above analysis clearly shows that majority 64.60% of the workers involved in sanitary work belongs to SC communities.

Number of years in the Present Occupation

The years of service is an important role in any occupation. The following table shows the number of years the permanent and temporary sanitary workers in the present occupation.

Table 5 : Number of years in the present occupation

Sl. No.	No. of years in the Present Occupation	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	Less than one year	16	8.00	23	7.67	39	7.80
2	Two years	26	13.00	46	15.33	72	14.40
3	Three years	42	21.00	95	31.67	137	27.40
4	Four years	54	27.00	58	19.33	112	22.40
5	Above Four years	62	31.00	78	26.00	140	28.00
Total		200	100	300	100	500	100

Source : Primary Data

The above 500 sample respondents 28.00% of the respondents have above Four years. Those workers have experience 7.80% less than one year. Where as 27.40% of workers have an experience of Three years. Workers have an experience Four years are around 22.40% in the sanitary work. The above 200 Permanent workers 31% of sample sanitary workers have Above Four years. Among 300 Temporary Workers 31.67% of sample sanitary workers have Three years. The higher share of Permanent workers with above four years of experience denotes the stability of the work.

Appointment of Sanitary Workers

The following table shows the appointment of permanent and temporary sanitary workers in their job.

Table 6 : Appointment of Sanitary Workers

Sl. No.	Appointment of Sanitary Workers	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	Municipality	200	100.00	0	0.00	200	40.00
2	Contractor	0	0.00	300	100.00	300	60.00
3	Self Help Group / NGO	0	0.00	0	0.00	0	0.00
Total		200	100	300	100	500	100

Source : Primary Data

The total 200 Permanent sanitary workers 40.00% have appointed by Municipality Corporation and the total 300 sample respondent 60.00% have Temporary Workers appointed by Contractors. The above 500 sanitary workers clearly 100.00% of sample respondents have been appointed by Municipality Corporation and Contractor.

Number of Working Days

The following Table shows the number of working days in a day by the sanitary workers.

Table 7 : Number of working days

Sl.No.	Number of Days	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	Less than 5 days	0	0.00	0	0.00	0	0.00
2	6 days	140	70.00	105	35.00	245	49.00
3	7 days	60	30.00	195	65.00	255	51.00
Total		200	100	300	100	500	100

Source : Primary Data

The above 200 sample Permanent workers majority of 70.00% go for the work 6 days in a week and 30.00% go for the work 7 days in a week. But in 300 sample Temporary workers majority of 65.00% go for the work 7 days in a week and 35.00% go for the work 6 days in a week. The total 500 sample majority sanitary workers 51.00% go for the work 7 days in a week.

Number of Working hours in a Day

The following Table shows the number of working hours in a day by the sanitary workers.

Table 8 : Number of working hours

Sl.No.	Number of Hours work in a Days	Permanent Workers		Temporary Workers		Total	
		No.	%	No.	%	No.	%
1	7-8 hours	105	52.50	178	59.33	283	56.60
2	9-10 hours	62	31.00	86	28.67	148	29.60
3	More than 10 hours	33	16.50	36	12.00	69	13.80
Total		200	100	300	100	500	100

Source : Primary Data

The above table shows that out of total 500 sample sanitary workers majority of 56.60% of the sample respondents are working 7-8 hours in a day and 29.60% of sample respondents are working 9-10 hours. The above table further shows that out of 200 sample Permanent workers, majority of 52.50% sanitary workers are working 7-8 hours in a day, 31.00% sanitary workers are working 9-10 hours in a day and remaining 16.50% of sanitary workers are working more than 10 hours in a day. The above table shows that out of 300 Temporary workers majority of 59.33% workers are working 7-8 hours in a day, 28.67% workers are working 9-10 hours in a day and remaining 12.00% of workers are working more than 10 hours in a day.

Work performed by the Permanent and Temporary Workers

The Permanent and Temporary sanitary workers are doing different kind of work such as Cleaning Sewage, Sweeping Street, Door to Door Collecting Waste, Sewage Removal, Cleaning of Septic Tank, Dead Animals Disposal. In order to find out which kind of work is done by Permanent and Temporary sanitary workers, Which statically Garret Ranking Analysis was made. The result of Garret Rank analysis is presented in the following tables.

Permanent Sanitary Workers

Permanent Sanitary Workers are doing the following different kind of works done. Which is statically Garret Rank Analysis was made. The results given below :

Table 9 : Work performed by the Permanent Sanitary Workers

Sl.No.	Kind of Works	Total Score	Average Score	Rank
1	Cleaning Sewage	10008	50.04	IV
2	Sweeping Street	13372	66.86	I
3	Door to Door Collecting Waste	9541	47.71	V
4	Sewage Removal	10291	51.46	III
5	Cleaning of Septic Tank	9500	47.50	VI
6	Dead Animal Disposal	11241	56.21	II

Source : Computed Data

The above clearly indicate majority of the permanent sanitary workers have given first rank to Sweeping Street. The second rank given to Dead Animal Disposal, Third rank given to Sewage Removal, Cleaning Sewage to Fourth rank, Fifth rank given to Door to Door Collecting waste and last Sixth rank given to Cleaning of Septic Tank.

Temporary Sanitary Workers

Temporary Sanitary Workers are doing the following different kind of works done. Which is statically Garret Rank Analysis was made. The results given below :

Table 10 : Work performed by the Temporary Sanitary Workers

Sl.No.	Kind of Works	Total Score	Average Score	Rank
1	Cleaning Sewage	16350	54.50	III
2	Sweeping Street	17253	57.51	I
3	Door to Door Collecting Waste	13955	46.52	V
4	Sewage Removal	16807	56.02	II
5	Cleaning of Septic Tank	13807	46.02	VI
6	Dead Animal Disposal	15049	50.16	IV

Source : Computed Data

The above clearly indicate majority of the Temporary sanitary workers have given first rank to Sweeping Street. The second rank given to Sewage Removal, Third rank given to Cleaning Sewage, Fourth rank Dead Animal Disposal, Fifth rank given to Door to Door Collecting waste and last Sixth rank given to Cleaning of Septic Tank.

Facilities Provide to Permanent and Temporary Sanitary Workers

There are different kinds of facilities provided for Permanent and Temporary sanitary workers such as Uniform, Equipments and Safety and Medical facility. The kind of facilities provided to sanitary workers for doing the work is presented in the following tables.

Permanent Sanitary Workers

The following facilities provided to Permanent Sanitary Workers for doing the work is presented in the Table given below :

Table 11 : Kind of facilities provide to Permanent Sanitary Workers

Sl. No.	Facilities	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	Uniform	98	49.00	71	35.50	10	5.00	13	6.50	8	4.00	200	100.00
2	Equipments	135	67.50	31	15.50	13	6.50	17	8.50	4	2.00	200	100.00
3	Safety & Medical	124	62.00	24	12.00	19	9.50	27	13.50	6	3.00	200	100.00

Source : Primary Data

The above table clearly shows out of the total 200 sample permanent sanitary workers, majority 67.50% of the sample respondents are strongly agree that they have provided Equipments facilities for doing their work and 62.00% of permanent sanitary workers strongly agree that they have been provided Safety & Medical for doing their work.

Temporary Sanitary Workers

The following facilities provided to Temporary Sanitary Workers for doing the work is presented in the Table given below :

Table 11 : Kind of facilities provide to Temporary Sanitary Workers

Sl. No.	Facilities	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	Uniform	101	33.67	134	44.67	11	3.67	45	15.00	9	3.00	300	100.00
2	Equipments	110	36.67	156	52.00	9	3.00	12	4.00	13	4.33	300	100.00
3	Safety & Medical	64	21.33	78	26.00	7	2.33	66	22.00	85	28.33	300	100.00

Source : Primary Data

The above table clearly shows out of the total 300 sample Temporary sanitary workers, majority 52.00% of the sample respondents are Agree that they have provided Equipments facilities for doing their work and 44.67% of Temporary sanitary workers Agree that they have been provided Uniform for doing their work. 28.33 % of sample Temporary Sanitary Workers Strongly disagree that have safety & medical facility for doing their work and 15.00% of Temporary sanitary workers Disagree to provide uniform for doing their work and also 22.00% of Temporary Sanitary Workers Disagree that have safety & Medical facility for doing their work.

FINDINGS:

- The permanent sanitary workers, 68.50% of the respondents are Male and 31.50% per cent of the respondents are Female. Among the temporary sanitary workers, 74.00% of the respondents are Male and the remaining 26.00% of the respondents are female. Male sanitary work is higher than the Female participation.
- To identified that the Permanent sanitary workers, only 4.00% of the workers are in the age group of 18 to 28 years, 39.00% of the respondents are in the age group of 40-49 years and among the temporary sanitary workers, above 59 years are very low in percentage. On the other hand majority 37.33% of the respondents are under the age group of 29-39 years.
- Majority of the Permanent Sanitary Workers 43.50% of the respondents are illiterates, majority 28.67% of the respondents are Primary level and among the temporary workers. This clearly shows that the Permanent Sanitary Workers having illiterate people prefer this job, but the majority higher educated Temporary sanitary workers prefer this job.
- Majority of SC community sanitary workers dominates 66.60% in the sanitary work followed by ST Sanitary workers 19.60%. It is identified that among the permanent sanitary workers, 76% are belonging to SC and 27.00% are belonging to the ST community. Among the temporary sanitary workers, 62.33% are belonging to SC, 14.67% are belonging to the ST community, 15.33% are belonging to BC community and 7.67% are other communities. The analysis clearly shows that majority of the Permanent sanitary workers involved in work belongs to SC and ST communities. But Temporary sanitary workers involved SC, ST, BC and other communities.
- It is found that among the 200 sample permanent sanitary workers, majority 31% of the sample respondents have above four years in the present occupation. Among the 300 sample temporary sanitary workers, majority of 31.67% of the sample respondents have Three years in the present occupation. The higher share of Permanent workers with above four years of experience denotes the stability of the work, but the Temporary workers not stability of the work.
- The Sanitary workers, 100 per cent of the sample respondents have been appointed by the municipality and Contractor.
- The sample permanent sanitary workers, majority of 70% of the sample respondents go for the work 6 days in a week and among the sample temporary sanitary workers, majority 65% of the sample respondents go for the work 7 days in a week.
- It is found that among the sample permanent sanitary workers, majority 52.50% of the sample respondents are working 7 to 8 hours in a day and among the sample temporary sanitary workers, majority 59.33% of the sample respondents are working 7 to 8 hours in a day. It is found that majority of sanitary workers are working 7 to 8 hours.
- It is found that among different kind of work done by the permanent sanitary workers, Sweeping Street and Dead Animal Disposal are ranked to be the most important ones. Cleaning of Septic Tank and Cleaning Sewage is the next important kind of work doing by the permanent sanitary workers.
- It is found that among different kind of work done by the temporary sanitary workers, Sweeping Street and Cleaning of Septic Tank are ranked to be the most important ones. Cleaning Sewage and Sewage Removal are the next important kind of work done by the temporary sanitary workers.
- It is found that among the permanent sanitary workers, majority 67.50% of the sample respondents strongly agree that they have provided Equipments facilities for doing their work and among the sample temporary sanitary workers, majority 52.00% of the sample respondents agree that they have been provided Equipments facilities for doing their work.

SUGGESTIONS

- Medical facilities may be given to the sanitary workers which may be useful to improve their health condition.
- The sanitary workers should be aware of legal protection. For that they may be allowed to attend legal awareness camps.
- The Government should provide loan with low rate of interest for meeting the family expenses which could be deducted from their salary, because the loans avail from private agencies carry high rate of interest.
- Best salary with other benefits like D.A., P.F., H.R.A.. pension need to be assured for the sanitary workers.

- Government may provide opportunities for their children to get admitted in the educational institutions for getting the higher education.
- To must provide latest equipment and mechanical devices for removing the Wastage and for cleaning the sewerage.

CONCLUSION

The study shows the working conditions of the sanitary workers and reveal the nature of work done by the sanitary workers. The problems in work place can be solved by providing actual rights like other government employees. Discrimination and stigmatization in work place and society reveals the steps to be taken by the government to uplift the sanitary workers socially. Uplifting the underprivileged in terms of education, rights, power and employment will improve the status of the sanitary workers. Providing safety facilities for sanitation workers, conducting regular medical camps, prevention of manual scavenging, creating awareness about government schemes will definitely improve the quality of life of the sanitary workers.

REFERENCE

- [1] Sukanya Rangamani, Kannamede Bheemappa Obalesha, Rakhil Gaitonde. (2015). "Health issues of sanitation workers in a town in Karnataka: Findings from a lay health-monitoring study" National Medical Journal of Indian. Vol.28(2):70-73.
- [2] Prabhakumari Chellamma, Sudhiraj, Arya Vijayakumar. (2015) Morbidity profile of sanitary workers in Thrissur Corporation, Kerala. Journal of Evolution of Medical and Dental Sciences/ e ISSN-2278-4802, p ISSN-2278-4748/ Vol. 4/ Issue 89, Pp 15468-15469. Retrieved from https://www.jemds.com/data_pdf/1_Prabhakumari%20c---afsa--shr.pdf
- [3] D. Joseph Anbarasu and S. Narmadha. "Job Promotional and Attitudinal Barrier of Women Sanitary Workers" International Journal of in Multidisciplinary and Academic Research (SSIJMAR) 2015, 4.
- [4] France Ncube, Esper Jacobeth Ncube, and Kuku Voyi (2017). "Bioaerosols, Noise, and Ultraviolet Radiation Exposures for Municipal Solid Waste Handlers" Journal of Environmental and Public Health. Vol. 2017, Article ID 3081638 Reviewed from <https://www.hindawi.com/journals/jep/2017/3081638/>
- [5] Lourdes Poobala Rayen, T. Juliet Nisee. (2017) "A study on the Working Conditions of Sanitary Workers in Tirunelveli Corporation" International Journal of Trend in Scientific Research and Development (IJTSRD), Vol.2-1, Pp 945-952
- [6] N. Sherrin Sophia and S. Pavithra, (2017). "A study on sanitation workers at Tiruchirappalli". International Journal of Applied Research. Vol. 3(4) : 168-170.

