

“Status of Water Supply, Sanitation and Hygiene Practices: A Study on Tea Garden Labourers of Sibsagar District of Assam”

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ABSTRACT: Water is a basic necessity and an important resource for sustaining life. The decline in water quality endangers the health of humans as well as the ecosystem. People affected by disasters are generally much more susceptible to illness and death from diseases, which are related to a large extent to inadequate sanitation, inadequate water supplies and poor hygiene. Therefore, adequate or clean drinking water, sanitation and hygiene play an important role in maintaining health. Tea garden communities are the part and parcel of our society. Without the improvement of their sanitation and hygiene practices, the overall health status of the society will be vulnerable. Thus, the main intent of the present paper is to study the status of water supply, sanitation and hygiene practices among tea garden labourers of Sibsagar district of Assam.

KEY WORDS: Sanitation, health, hygiene, Tea garden labourers, Sibsagar, Assam

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I INTRODUCTION:

The Millennium Declaration and the goal recognize the importance of safe drinking water and sanitation to meet the global commitments. This is now an integral part of Target 10 under Millennium Development Goal 7 on ensuring environmental sustainability, as well as important input for other goals. A safe water supply has been defined as a source which is likely to supply water which is not detrimental to health. Safe water sources include: a household piped water connection, a public stand pipe; a borehole; a protected dug well; a protected spring and a rainwater collection system. In the context of goal 7, target 7C of the MDG's; it seems that sanitation is seen principally as the removal of human excreta or the availability of appropriate facilities for its disposal. For example, in tracking progress of the MDG's the term improved sanitation is used, and it refers to connection of households to a private or sewer septic system (with a soak away), a pour flush latrine, a simple pit latrine, or a ventilated improved pit latrine. Water availability therefore influences the type and functionality of the sanitation facilities which exist and as such it is not unusual for the two to be studied in relation to each other. In terms of hygiene refers to the use of water for cleaning parts of the body which is either personal or domestic.

Assam is world famous for its quality of tea as well as the natural beauty of the tea plantation area. It is the world's largest tea growing region, producing more than 400 million of k.gs of tea annually. Beautiful tea estates of Assam cover about 2, 16,200 hectares of land. Demographically, Tea garden labour community of Assam represents around 20% of the total population of the state accounting more than 45 lakh tea garden labour population in the state and is one of the biggest contributors to the organised workforce as well to the economy of Assam both directly and indirectly. In Assam, the Public Health Engineering Department (PHE) is implementing the Total Sanitation Campaign. The department had set a target of bringing 22, 20,017 BPL households under the sanitation programme. Moreover, through in India and Assam there is some govt. Schemes on pure water supply in the rural and urban areas like 'Swajaldhara' but these schemes are yet to reach the people working in the various tea gardens of Assam. Here, the investigator made an attempt to study the status of water supply, sanitation and hygiene practices among tea garden labourers of Sibsagar district of Assam.

A brief description of the study area:

Sibsagar is a heritage place in Assam famous for the monuments of Ahom kingdom. Now, it is a multi-cultural city. The main industries in Sibsagar are oil industry and tea industry. The district comprises three subdivisions- Sibsagar, Charaideo and Nazira. The district shares common boundaries with Dibrugarh district on the east, Jorhat district on the west, river Brahmaputra on the North and Nagaland and Arunachal Pradesh states on the south. It is about 360 kilometres north east Guwahati. Upper Assam tea gardens contribute a huge role in Assam's economy. Sibsagar's biggest contribution to the world is its tea. It produces some of the finest and most expensive teas in the world. According to census 2011, there are total 19 tea estates in Sibsagar district.

Mackeypore and Geleky Tea estates are big tea gardens of Sibsagar district, where many garden workers stay near the garden.

II OBJECTIVES:

The prime objectives of the study are as follows:

1. To study the status of water supply in the tea garden for the workers.
2. To study the sanitation practices and its adequacy among the tea garden labourers
3. To study the hygiene practices adopted by the tea garden workers and their family.
4. To give some suggestions to improve the status of water supply, sanitation and hygiene practices among tea garden labourers of Sibsagar district of Assam.

III METHODOLOGY:

The study is based on field survey. So, descriptive study method is used to collect data. Also secondary data have been used. Secondary sources include books, various journals and internet websites.

Population:

The population of the study comprised of all the inhabitants that is the Tea Garden community of Sibsagar district of Assam.

Sample of the study:

Regarding the selection of sample size the purposive sampling method is used. The researcher selects 2 tea estates of Sibsagar district i.e. 20 households from each of the 2 tea estates named Mackeypore and Geleky tea estates of Sibsagar district as a sample of study.

Tools and Techniques of data collection:

To collect the required data the researcher developed a questionnaire and collected required information or data from the heads and members of the family using the questionnaire.

IV RESULT AND DISCUSSION:

Here an attempt has been made to study the status of water supply, sanitation and hygiene practices among tea garden labourers of Sibsagar district. The study carried out 40 households of the 2 tea estates of Sibsagar district. The following results came out during the survey.

Table 1: Source of water supply

Name of the Tea Garden	Source of water supply (Percentage of household using)			Total
	Community water system	Deep well	Tube well/ Hand pump	
Mackeypore tea estate	90%	0%	10%	100%
Geleky tea estate	90%	0%	10%	100%

Source: Field survey 2018

From the above table it is found that community water system is the most common source of water supply of the households. In both the gardens 90% have community water system and only 10% have tube well. In both the gardens under study it is the most prominent mode of water source for the purpose of drinking and day to day uses.

Table 2: Provision of water supply

Name of the Garden	Provision of water supply is made by (Percentage of household)			Total
	Tea Company	Self	Government (PHE)	
Mackeypore tea estate	45%	5%	50%	100%
Geleky tea estate	40%	5%	50%	100%

Source: Field survey 2018

From the above table it is found that, mostly water supply sources are government made in both the gardens i.e. 50%. Also Tea Company provided water supply in both the gardens i.e. 45% and 40% respectively.

Table 3: Condition of drinking water

Name of the Garden	Drinking water			Total
	Filtered	Boiled	Raw	
Mackeypore tea estate	0%	50%	50%	100%
Geleky tea estate	0%	55%	45%	100%

Source: Field survey 2018

It is seen from the above table that, water filtering process is mostly absent in both the tea gardens. However, a substantial part of the household reported that they use boiled water for consumption purpose i.e. 50% and 55% in Mackeypore and Geleky tea estate respectively. Although, some of the households are drinking raw water and as their water source is not always safe, they endanger themselves and become the victim of water borne diseases by such act.

Table 4: Condition of toilet in the studied tea gardens

Name of the Garden	Sanitary tank		Unsanitary tank		Total
	Water sealed	Septic tank	Open sit	None	
Mackeypore tea estate	5%	65%	30%	0%	100%
Geleky tea estate	0%	60%	40%	0%	100%

Source: Field survey 2018

In order to study the toilet facilities of both the area the household of the gardens were divided in the sanitary tank and unsanitary tank categories. Above table reveals that in Mackeypore tea estate 5% have water sealed, 65% have septic tank, 30% have open sit. And in Geleky tea estate 60% have septic tank, and 40% have open sit.

Table 5: Provision of toilet

Name of the Garden	Toilet is provided by (percentage of household)			Total
	Self	Company	Government	
Mackeypore tea estate	5%	30%	65%	100%
Geleky tea estate	0%	30%	70%	100%

Source: Field survey 2018

From the above table it is seen that in Mackeypore and Geleky tea estate government has provided majority of the toilets i.e. 65% and 70% respectively. And Tea Company has provided 30% toilets in Mackeypore and Geleky tea estate.

Table 6: Children’s habit of using toilet

Name of the Garden	Children use toilet		Total
	Yes	No	
Mackeypore tea estate	25%	75%	100%
Geleky tea estate	20%	80%	100%

Source: Field survey 2018

It is seen that, in the tea gardens, the children are mostly not using toilets even if the household has own it. It is a major cause of various diseases of child. In the survey it is found that children from 75% household in Mackeypore tea estate and 80% from Geleky tea estate are not using toilets.

Table 7: Hygiene practice before and after toilet practice

Name of the Garden	Use hygiene practices before and after toilet practices		Total
	Yes	No	
Mackeypore tea estate	65%	35%	100%
Geleky tea estate	65%	35%	100%

Source: Field survey 2018

Regarding hygiene practices generally followed during toilet practices, in the study, it is found that households using hygiene practices are 65% in both the tea gardens.

Table 8: Materials used for toilet related hygiene practices

Name of the Garden	Use materials		Total
	Soap	Only water	
Mackeypore tea estate	100%	0%	100%
Geleky tea estate	95%	0%	100%

Source: Field survey 2018

From the above table it is seen that out of the persons who are using hygiene practice, majority of them use soap for that purpose i.e. 100% in Mackeypore tea estate and 95% in Geleky tea estate.

Table 9: Awareness regarding sanitation related diseases

Name of the Garden	Aware of sanitation related diseases (Percentage of households)			Total
	Yes	No	A little	
Mackeypore tea estate	55%	30%	25%	100%
Geleky tea estate	50%	30%	20%	100%

Source: Field survey 2018

From the table it is seen that 30% household from both the garden posses no knowledge regarding sanitation related diseases. This is vulnerable because lack of awareness makes the occurrence of such diseases more prominent.

Table 10: Type of sanitation related diseases

Name of the Garden	Dysentery	Malaria	Dengue	Others	More than one diseases	Total
Mackeypore tea estate	30%	15%	0%	5%	50%	100%
Geleky Tea estate	30%	10%	0%	5%	55%	100%

Source: Field survey 2018

From the above table it is seen that, regarding the type of diseases, the households are facing more than one sanitation related diseases i.e. 50% and 55% in Mackeypore and Geleky tea estate. Dysentery is more prominent among them, i.e. 30% in both the tea estates.

Table 11: Preventive measures/treatment method of sanitation related diseases undertaken (Percentage of household)

Name of the Garden	Preventive measures		Total
	Scientific medical treatment	Traditional medicine	
Mackeypore tea estate	95%	15%	100%
Geleky tea estate	90%	10%	100%

Source: Field survey 2018

From the table it is noticed that, the households are mostly undertaking scientific medical treatment for the sanitation related diseases i.e. 95% and 90% in Mackeypore and Geleky tea estates respectively. The tea garden people are taking the scientific medical treatment in the tea company provided hospitals or the govt hospitals.

Table 12: Practice of washing hands before and after taking meal (Percentage of household)

Name of the Garden	Wash hands before and after meal		Total
	Yes	No	
Mackeypore te estate	100%	0%	100%
Geleky tea estate	100%	0%	100%

Source: Field survey 2018

From the above table it is found that, the households are aware about the benefit of washing hands before and after taking meal and all i.e. 100% the households are having the practice.

Table 13: Place of disposing garbage (Percentage of households)

Name of the Garden	Outside the house	Dustbin	Drain	Total
Mackeypore te estate	80%	0%	20%	100%
Geleky tea estate	85%	0%	15%	100%

Source: Field survey 2018

It is evident from the table that many of them used to through the garbage outside the house i.e. 80% and 85% in Mackypore and Geleky tea estate respectively. Some are using the drain for disposing of the household garbage.

Table 14: Household cleaning practice (Percentage of households)

Name of the Garden	Per day	2/3 days a week	Once in a week	Total
Mackeypore tea estate	65%	35%	0%	100%
Geleky tea estate	55%	45%	0%	100%

Source: Field survey 2018

Above table shows the frequency of household cleaning practices in the tea garden households. Most of the people are cleaning their house per day i.e. 65% in Mackeypore tea estate and 55% in Geleky tea estate. And substantial part of the people i.e. 35% in Mackeypore and 45% in Geleky tea estate are cleaning their household 2/3 days a week.

Findings: On the basis of the field survey data regarding status of water supply, sanitation and hygiene practices among tea garden labourers of Sibsagar district of Assam, some major observation can be summed up as follows:-

1. Community water supply is the most common source of water supply of the household.
2. Provision of water supply is made by mostly both government and Tea Company.
3. Government (PHE) has provided majority of the toilets in the tea gardens.
4. Mostly the children are not using toilets in the tea gardens.
5. Most of the household using hygiene practices before and after toilet practices.
6. Most of the household faced more than one toilet related diseases.
7. The tea garden people are taking the scientific medical treatment for the sanitation related diseases.
8. 100% of the household are aware about the benefits of washing hands before and after taking meal.
9. Many of the household used to through the garbage outside the house.

Suggestions:

On the basis of the present study, the following are put forward for the improvement of the status of water supply, sanitation and hygiene practices among tea garden labourers of Sibsagar district of Assam.

1. Government must make some strict rules, regulations and laws if necessary for the compulsory provision of adequate water supply, sanitation facility in each tea garden.
2. The Public Health Engineering Department must work rapidly to provide sanitation facilities to the households in order to achieve the ambitious sanitation target under the Total Sanitation Campaign.
3. NGO's and other concerned institutions should be create awareness and generate information regarding the sanitation and hygiene practice among tea garden labours and their households.
4. Government and tea management authority must take extensive steps and heavy investment for the upliftment of educational status among tea garden workers and their family. Especially, they must focus on women's education.

V CONCLUSION:

From this study it is seen that, the status of water supply, sanitation and hygiene practices among tea garden labourers of Sibsagar district are not satisfactory. Government and Tea Company have provided toilets but these are inadequate and ill managed. Some of the tea garden workers do not have the hygienic toilets. Moreover, most of the child use open space as toilets and this makes them prone to the sanitation related diseases. Sanitation related diseases are also a major and common problem in the tea garden areas. One in every two surveyed household has reported the problem. The children are more vulnerable to these types of diseases and unscientific disposal garbage is found in most of the households. It's the women folk who fetch water for the household and looks after the hygiene and cleanliness of the house. So, their education and awareness regarding safe drinking water and clean toilets is very important. Overall, this study explored that the hygienic practices the tea garden workers are limited and insufficient. Therefore, to live a better and healthy life, these conditions should be improved to a significant extent.

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