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An Investigation on Water and Sanitation Facilities Provided to the Higher Secondary Schools in Sangli District, Maharashtra

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Abstract: ***Wellbeing is firmly related with water (drinking and hand washing), sanitation, and cleanliness (Wash). The huge key highlights of "Swachh Bharat, Swachh Vidyalaya" trademark are intended to guarantee that every single school in India has an arrangement of working and very much kept up water and sanitation facilities. Wash is alluded to as the course of action of specialized and human advancement. It helps create a solid school condition and shields school youngsters from ailments. It's essential parameters are improvement of school education and diminishment in understudy drop-out in schools. It encourages appropriate learning environment in schools. Water, sanitation, and hygiene facilities are an imperative factor for figuring a sound situation in schools, and it can adequately build understudy enlistment, particularly for girls. Along these lines, the present investigation concentrated on water and latrine facilities in the province of Maharashtra and draws out an examination of water and latrine facilities in government and non-public schools of Sangli region (provincial and urban zones), Maharashtra.***

Keywords: water, sanitation, hygienic, health, student, education and schools

1. Introduction

Wellbeing is emphatically corresponded with water (drinking and hand washing), sanitation, and hygiene (Wash) in instructive establishments. The Prime Minister of India (2014) propounded the trademark "Swachh Bharat: Swachh Vidyalaya" for the national campaign driving neatness (Clean India: Clean Schools). The key highlights of the trademark guarantee that every single school in India has an arrangement of execution and all around kept up Wash facilities. It is eluded as the course of action of specialized and human improvement and it delivers a solid school condition. Its essential parameters are upgrade of school instruction and diminishment in understudy drop-out rate in schools.

Wash in schools satisfies the all-inclusive ideal to training and wellbeing for school kids. It assumes an imperative part in accomplishing the United Nations Millennium Development Goals, in this manner expanding access to class instruction, change of participation, subjective improvement, sexual orientation balance, and advancing more prominent young lady understudy investment. As per United Nations Children's Fund (UNICEF), youngsters in schools contract ailments and contaminations, and 88% of diarrheal ailments are caused by dangerous water supply, insufficient sanitation, and wrong cleanliness. Poor water and sanitation facilities in school can spread ailments, for example, looseness of the bowels and worm pervasions. These causes influence school support of students and educators and learning.

2. Review of Literature

The following studies have explored issues of water, sanitation, and hygienic conditions of schools.

Rajendran (2015) led an examination about the accessibility and access to water and latrine facilities in government and non-public schools. These facilities in government schools are not doing so great and unusable. It is astounding that the administration schools for young men in urban territories don't approach latrine office. Additionally, the toilet facility is extremely poor in schools. It was found from the field consider that drinking water office isn't consistently accessible in the school grounds, and the status of accessibility of the same was not clear in government school grounds.

Reddy and Murali (2015) found that defilement and low quality development and support are hindering the genuine advance of WaSH in schools and poor people and disappointed are enduring the worst part of such degenerate practices. Evaluating respectability levels and dangers in arranging, advancement, and observing of school WaSH resources and distinguishing pertinent uprightness change measures are in this manner, fundamental strides towards meeting segment targets and managing advancement of water and sanitation scope.

Jha and Parvati (2014) noticed that the state-wise information, incorporated by the branch of advanced education, reflected wide territorial differences as far as progress made in setting up elementary schools. Concerning upper elementary schools situated at the local level, progress has been skewed. The progress in giving drinking water and sanitation facilities additionally uncovered a comparatively skewed pattern at the state level.

As per Kumar and Bhatia (2014), just sound individuals can contribute gainfully towards country building and high monetary development. A concise investigates the status of human services facilities and open consumption on wellbeing repudiated this presumption, particularly on account of the province of Gujarat. The investigation made an unassuming endeavor to survey chose parts of the human services framework in Gujarat and bound country territories.

UNICEF (2012) revealed that around 2.65 billion individuals lived (according to 2012 information) without access to legitimate latrine facilities, and 883 million don't

approach safe water. WaSH in schools can encourage relieve the dangers to conquer enormous difficulties. School kids are for the most part more intrigued by adapting new thoughts, would more be able to effectively change their conduct and enhance their practices inside their families and among their groups.

Adams, Bartram, Chartier, and Sims (2009) thought that schools, especially in country regions, totally need drinking-water, sanitation, and hand washing facilities. Schools with poor water, sanitation, and cleanliness conditions and exceptional levels of individual to-individual contact are high-chance situations for students and educators and compound students' specific weakness to natural wellbeing risks.

3. Problem of the Study

In India, individuals are confronting enormous difficulties regarding poor drinking water and sanitation in rural and urban zones. Lacking water and sanitation facilities have been a noteworthy issue in rudimentary and optional schools. Government oversaw schools don't legitimately keep up water and toilet facilities. Government funded schools have not given protected and quality drinking water and latrine facilities to class partners. This is the real reason for diminish in students' enlistment rate, increment in drop-out rate, particularly that of young girls students in the provincial area. It is one of the elements for low female proficiency rates in rustic India.

Because of the absence of legitimate water and sanitation facilities, a few guardians concede their kids in tuition based schools and leave government organizations. The administration and tuition based schools store savoring water overhead tanks and underground tanks, however tanks are not appropriately kept up. These elements influence the soundness of school kids, go about as a wellspring of sicknesses, and influence the school learning condition. Additionally, a few schools (government and private foundations) give savoring water pitchers, tin jars, and pots. Latrine facilities in government schools are lamentable. They are not kept up and cleaned for the reason that there is the lack of labor. Subsequently, the present investigation concentrates on drinking water and toilet facilities in higher auxiliary schools.

4. Objectives of the Study

In order to have an in-depth insight into existing water and sanitation issues prevailing in the higher secondary schools of Maharashtra, the following objectives have been formed by us:

- To examine the availability and accessibility of water and sanitation facilities in schools in Maharashtra.
- To investigate Wash (water, sanitation, and hygienic) facilities in higher secondary schools in Sangli District of Maharashtra.

5. Methodology

The investigation was directed utilizing subjective strategies. We explored optional and essential information at large scale and miniaturized scale level. Optional information was gathered from government records, diaries, and daily papers. Essential information was gathered from higher auxiliary school students of both government and private establishments. We arranged a meeting plan for gathering essential information. The meeting utilized rating scale technique (very poor - 1, poor - 2, no opinion - 3, good - 4, and very good - 5). The employed multistage random sampling method. We picked Sangli District in Maharashtra. It had the most noteworthy number of 10 blocks which are educationally good area in Maharashtra. The present investigation has taken just the instructively in reverse pieces of Sangli District. The example estimate utilized 150 respondents from both government and private establishments. The investigation was directed by utilizing the meeting plan technique. The day and age of the investigation was from July - August 2017 for higher optional school students in the areas under examination.

6. Scope of the Study

The present research was intended to think about conditions and accessibility of water and toilet facilities in higher auxiliary schools (both government and tuition based schools) of Sangli District, Maharashtra. The investigation records feeling of auxiliary school students about water (to drink and hand washing) and toilet facilities (for young ladies and young men) in the school grounds. The investigation looks at the nature toilet facilities and request – side variables for water and sanitation facilities at higher auxiliary schools in Sangli District.

7. Results and Discussion

(1) Structure of School Education in Maharashtra: School education structure in Maharashtra state is based on the national pattern. The state has a 12 years schooling system at two levels. The Table 1 shows school education structure of Maharashtra. The Right to Education Act, 2009 states that free and compulsory education is a fundamental right of every child between the age of 6 and 14 years.

Table 1: Structure of School Education in Maharashtra

Level	Type of schools	Classes (Std.)
Elementary	Primary	1st to 5th
	Upper Primary	6th to 8^{th}
Secondary	High School	9th to 10^{th}
	Higher Secondary	11th to 12^{th}

(Sources: Department of School Education, Government of Maharashtra)

Elementary education covers 8 years - 5 years of primary stage and 3 years of upper primary stage. This is followed by two years high school education and lastly two years of higher secondary education. Secondary education is the qualification to higher education in general education,

technical education, and professional education. Secondary school education is an important parameter for fostering economic growth of the nation.

(2) Types of Schools in Sangli District: School education is delivered by the government and private players in Maharashtra and Sangli district. The Table 2 shows the types of schools such as primary schools, Upper Primary, high schools, and higher secondary schools. Among the schools, 76.10% and 15.37% are primary and upper Primaryin Maharashtra. Higher secondary schools and high schools comprise of 6.99% and 1.53% of the total schools. Good schooling would help higher education.

Table 2: Types of Schools in Sangli District

Sr. No	Type of schools	No. of schools	Percent
1	Primary	2188	76.10
2	Upper Primary	442	15.37
3	High School	201	6.99
4	Higher Secondary	44	1.53
	Total	**2875**	**100**

(Sources: Demographic profile of Sangli District)

Hence, the school education department should concentrate upon upgrading school levels and infrastructure facilities such as classrooms, drinking water, and toilet facilities.

(3) Water and Sanitation Facilities in Schools of Sangli District, Maharashtra: Water, sanitation, and hygiene (Wash) in schools refers to a combination of technical and human development mechanisms that are necessary to produce a healthy school atmosphere. The Table 3 shows water and toilet facilities in Sangli District, Maharashtra in 2016-2017. Water and toilet facilities are important factors for creating quality education in school environment.

Table 3

Sr. No.	Facilities	Number of Schools	Percentage
1	Girls Toilet	2873	99.93
2	Boys Toilet	2812	97.81
3	Water	2875	100

(Sources: Demographic profile of Sangli District)

(4) Socioeconomic Conditions of the Respondents: One of the important characteristics of the study is to estimate the socioeconomic profile of the respondents in the study region. Social and economic conditions of the respondents like religion, educational background, occupational status of parents, and family income level could further reveal the background of the respondents and their characteristics.

(i) Gender of the Respondents: The Figure 1 shows the gender of the respondents in the study area. It is also essential to discuss the gender of the students for higher secondary schools in Sangli district. Of the total sample of 150 students, about 65.3% were boys and 34.67% were girls. This figure reveals the preference level for both government and private higher secondary school students in Sangli district.

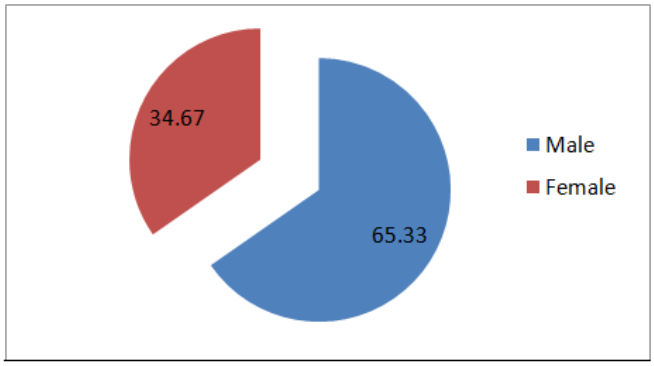

Figure 1: Gender of the Respondents

(ii) Religion of the Respondents: The Table 4 shows the religion of the students in higher secondary schools in the study area. The majority of the respondents were Hindus (89.3%) and 10.67% of the respondents were Muslims.

Table 4: Religions of the Respondents

Religion	Frequency	Percentage
Hindu	134	89.33
Muslim	16	10.67
Total	150	100

(iii) Occupation Status of Parents: The occupation of parents is a prime factor that decides education of their children. Their occupation status has been grouped into six that is, agriculture, business, government, private, Professionals and daily wage earners. Among them, the highest number of parents worked in agriculture, accounting for 36% of the total sample (Table 5).

Table 5: Occupation Status of Parents

Sr. No.	Type Of Occupation	Frequency	Percentage
1	Agriculture	54	36.00
2	Govt. Employee	4	2.67
3	Private Employee	12	8.00
4	Daily Wage	28	18.67
5	Professionals	22	14.67
6	Business	30	20.00
	Total	150	100

As can be seen from the Table 5, the share of agriculture is 36%. The parents of the respondents were dependent upon agricultural and allied works ; 2.67% of the parents were government employee ; 18.67%,14.67% and 20% of the parents were Daily Wage workers, Professionals, and in Business respectively.

(iv) Income Status of the Parents: An important factor is income level of parents which determines education of their children as well as their choice of academic institutions. We created five income groups, that is, income up to ` 50,000 ; ` 50,001 - ` 1,00,000 ; `1,00,001 - ` 1,50,000 ; ` 1,50,001 - ` 2,00,000, and above ` 2,00,000 lakh earned per annum. The income status of the parents of the respondents per annum is given in the Table 6; 12% of the parents of the respondents belonged to the annual income category of per annum income of up to ` 50,000, 20.67% belonged to the ` 50,001 to ` 1, 00,000 level, and 25.33% belonged to the income level of more than ` 2, 00,000 annual income.

Table 6: Income Level of Parents

Income Level(Rs)	Frequency	Percentage
Up to 50000	18	12
50,001-1,00,000	31	20.67
1,00,001-1,50,000	38	25.33
1,50,001-2,00,000	25	16.67
Above 2,00,0000	38	25.33
Total	150	100

(5) Drinking Water and Toilet Facilities in Schools in Sangli District

(i) Drinking Water Facility: The present study analyzed the availability of drinking water and toilet facilities in government and private schools of Sangli district. The Government of Maharashtra has been supporting development of quality education to achieve high human development and economic growth. The Government of Maharashtra has been taking initiatives to provide quality education and create a healthy environment in schools.

The Figure 2 shows drinking water facilities in higher secondary schools in the study region. The students were asked about drinking water facilities in government and private schools; 32% of the respondents were of the opinion that drinking water facility was poor; 40% of the respondents opined that the drinking water facility was good. Therefore, the data reveals that drinking water facility provided by private schools is better than what is provided by government schools.

Providing drinking water facility is the responsibility of the management of institutions and during the field study, it was found that some of the private schools had installed water purifiers in the school campuses. This shows that drinking water facilities in government schools are poorly maintained. The field observation reveals that some government schools were not regularly supplying drinking water. In this case, the students searched for drinking water in nearby tea shops and homes.

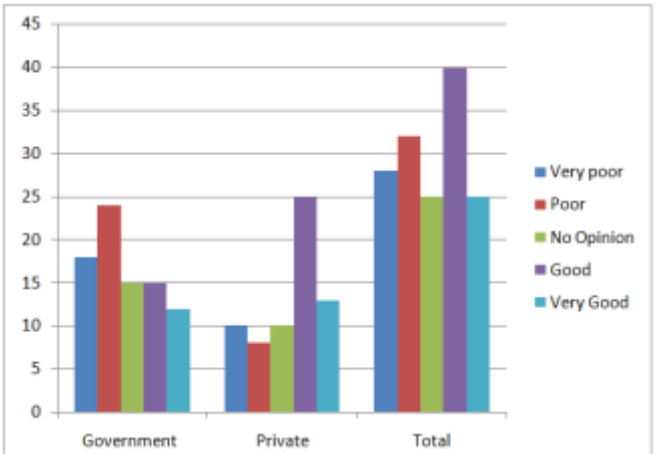

Figure 2: Drinking Water Facility

(ii) Toilet Facility for Girls: It is an important issue, especially for girl students. Due to the unavailability of proper toilet facilities, parents do not admit their teenage girls in schools. The Figure 3 shows the condition of toilet facilities that are available for girl students in the sample district; 36% of the respondents opined that toilet facilities for girls were in very poor condition and 16% of the respondents opined that toilet facilities were in a very good condition in both government and private schools, especially government schools lacked properly maintained toilet facilities.

At the same time, majority of the government school respondents gave a negative feedback regarding toilet facilities for girl students. We observed that government schools lacked manpower for toilet cleaning as the toilets were not properly clean and maintained. The school students said that the toilet facilities were in a poor condition in the sample schools. Due to poor toilet facilities in schools in rural areas, girl students drop out or get a transfer to other schools. This is one of the reasons for low female literacy in educationally backward blocks in the State. Poor condition of toilets and non-availability of toilets may result in creation of breeding grounds of dangerous diseases.

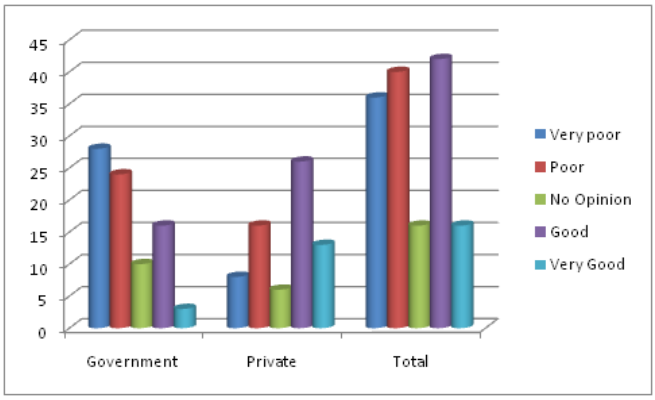

Figure 3: Toilet Facility for Girls

(iii) Toilet Facility for Boys : Providing toilet facilities separately for girls and boys is the responsibility of schools ; 15% and 32% of the respondents opined that the toilet facility for boys was poor and very poor in government schools in the study region, respectively. Of the total respondents, 22% opined that the toilet facility was in poor condition in both government and private schools. This is one of the causes of decreasing enrollment of boys.

The Figure 4 shows that 24% of the respondents said that the toilet facility for boys was in good condition in private schools. The data shows that toilet facility for boys in private schools was better than what it was in government schools. Similarly, some private schools are providing toilet facility with hand washing water tap.

Private schools maintain clean and hygienic toilet facilities. The field study found that a toilet facility in government schools was in a bad shape. This is the scenario in all government schools.. We also found that some students urinated in open places in government schools.

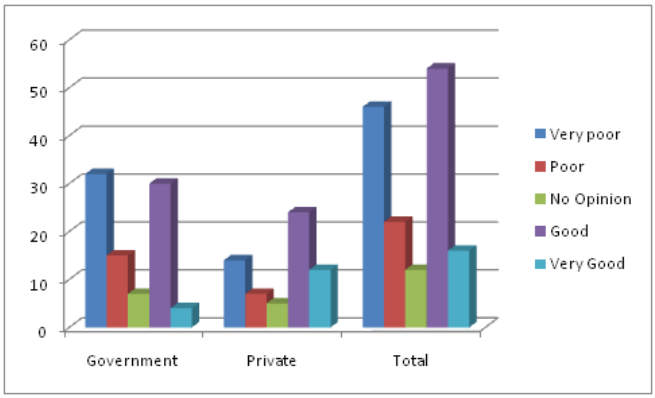

Figure 4: Toilet Facility for Boys

8. Research and Policy Implications

1) The legislature ought to introduce R-O plants to guarantee the accessibility of safe savoring water all schools.
2) Schools should develop more latrine facilities with the assistance of assets raised from contributors and by NGOs.
3) The legislature should utilize individuals' low maintenance for toilet cleaning at government possessed schools.
4) Schools educators ought to make mindfulness and instruct about wellbeing and sanitation.
5) Proper dustbins must be organized napkins and papers utilized by youthful young ladies. Cremation facilities may be organized to maintain a strategic distance from any undesirable dumping of materials.
6) Checking water quality and strength of youngsters must be embraced intermittently to distinguish issues, assuming any, at a beginning period.
7) Tax exclusion might be given to firms that supply RO plants to schools and other instructive establishments.

9. Conclusion

The present investigation investigated the accessibility and nature of drinking water and toilet facilities in higher secondary schools in Sangli district in Maharashtra. Water and latrine facilities are essential for quality instruction and solid condition in schools. Prior investigations discovered territorial variations in giving drinking water and toilet facilities at the state level (Jha and Parvati, 2014); connection amongst defilement and low quality of sanitation facilities in instructive organizations (Reddy and Murali, 2015) ; and water and sanitation administrations are not working appropriately in schools (Rajendran, 2015). The present investigation found that administration schools have an exceptionally poor state of drinking water and sanitation civilities and it is contrasted and tuition based schools. It is can be deduced that facilities that are given and accessible in non-public schools are greatly improved than those in government schools. Be that as it may, local variations were seen amongst rural and urban zones. The arrangement of water and latrine facilities should be quickened with support, important cleanliness instruction, and reliable utilization of facilities by all kids and educators. Schools have the duty of giving a solid school condition. The administration should make a move to enhance toilet and water facility in schools. Besides, it should watch that latrine and water facility are legitimately kept up and are working in government and tuition based schools. Schools ought to give unadulterated drinking water and clean latrine facilities to the school youngsters to keep away from ailments.

10. Limitations of the Study and Scope for Further Research

The investigation did not consider water and sanitation conditions in primary, secondary, and high schools. The information was taken from higher secondary (students of classes eleventh and twelfth) who know about the school condition for this investigation.

Water and sanitation facilities factors influence student's enlistment and travel rates, particularly those of young ladies students. Yearly Status of Education Report (ASER, 2014) brought up that students enlistment rate expanded in non-public schools and guardians were selecting to concede their youngsters in tuition based schools. Accordingly, it shows an absence of foundation in government schools and poor upkeep. Essential training is the base for every single formative action, particularly a sound domain in instructive organizations. Thus, this investigation will prompt further research along various measurements, for example, the level of mindfulness about advantages of toilets among students, wellbeing training conferred to students in schools, and monetary cost for the best possible support of latrine and water facilities in schools and so on.

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