

## Swachh Vidyalaya Abhiyan: Findings from an Empirical Analysis

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### Abstract

*This paper attempts at providing an empirical inquiry into the outcomes of the Swachh Vidyalaya Abhiyan. Taking evidences from five North Eastern states of India, the results of the study indicates that the programme is efficient in terms of providing the schools with functional toilets. The intervention, as evident from the findings, is also contributing effectively in improving school attendance rates. However, the programme does not seem to have any positive effect on school enrolment rates. The study highlights two observations; first, the intervention fails to have significant impact on behavioural practices, and second is that sustainability of the outcomes remains greatly doubtful, particularly in the hills. The paper argues that the interventions carried out under the programme primarily targeted at physical achievements without putting much emphasis on behavioural practices, quality and sustainability of services has significantly limited the outcomes of the interventions. Further, it is also found that the programme hardly had any convergence with other similar and related government programmes.*

### 1. Background

On 15 August, 2014, the Prime Minister of India made a pledge that within a year, “all schools in the country should have toilets with separate toilets for girls” (MHRD, 2014). Access to clean and safe drinking water and proper sanitation for both boys and girls are, in fact, two important norms of a school, inter alia, mandated by the Right to Education Act (2009). Notably, both water and sanitation are closely linked to one another and have positive and significant effect on schooling - increasing enrolment, improving retention and attendance of students, reducing drop-outs and, thereby, improving the educational outcomes of students and positively contributing to economic growth (Freeman et al., 2012; Santiago Ortiz-Correa, Resende Filho, & Dinar, 2016).

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The pledge, thus, besides underscoring the emphatic commitment of the Government of India towards realising, in general, the vision of “clean India” by October 2, 2019 to mark the 150<sup>th</sup> birth anniversary of Mahatma Gandhi, also represents the obligation of the Government towards achieving desired educational outcome for each and every child in the country. The intervention further intends to develop healthy school environment and to support appropriate health and hygiene behaviour among the school children. Given this context, Swachh Vidyalaya Abhiyan was launched in response to the pledge made by the Prime Minister in August, 2014. It was estimated that around 2.63 lakh schools are to be covered by constructing and renovating 4.10 lakh toilets within August 2015, in order to ensure that every child has access to toilet facilities in their schools. These toilets were required in schools located mostly in hardest to reach and very difficult to access areas including areas with difficult mountainous terrains, densely crowded slums, thick forests and jungles, and areas facing problems of insurgency and extremism

The overall approach of Swachh Vidyalaya Abhiyan has been an integrated one driven by a comprehensive perspective on sanitation. The first level of integration is evident from the fact that the campaign attempted at combining three components viz. water, sanitation and hygiene through a set of ‘facilities’ created at the schools which include physical as well as human components. The second level of integration is observed in the Government’s effort to pool the massive amount of resources that would be necessary to honour the pledge made by the Prime Minister. Besides the Government funding under routine and regular programmes related to clean India drive i.e. Swachh Bharat Kosh and area development fund of MPs and MLAs, all public and private sector companies were mandated to contribute to the campaign under the Corporate Social Responsibility (CSR) obligations. Due to such enormous efforts, the target of constructing 4.10 lakh toilets could be achieved within a year.

It has been said that the ‘Abhiyan’ is successful in reaching the schools located in hardest to reach and very difficult to access areas of the country and also in bringing ‘socially anathematised’ issue like open defecation and cleanliness to the centre-stage of the State policy (Misnaming Toilet Building as ‘Swachhata’, 2018). The outcome of the *swachhata drive*, however, has been rather mixed. Water Aid study (Raman, Muralidharan, Srivastava, & Hueso, 2017) found that the top-down approach focusing on rapid implementation for achieving physical targets resulted in poorly constructed toilets with suboptimal quality unsuited to the local geography by not adhering to design parameters. The campaign, with its main thrust on physical infrastructure, largely ignored sanitation provisioning for the marginalised section of the society – mainly the differently able and the girl students. Although functional toilets for girl students have gone up twofold during 2016 over 2010, the ASER report (*Annual Status of Education Report (Rural) 2016*) published on January 18, 2017 found that 38 percent of schools still do not have functional and usable girls’ toilets. Considering the over centralised system of implementation to have only numbers in count, be it ODF certificate for villages (Swachh Bharat) or toilets in schools (Swachh Vidyalaya), violation of rights to have universal water and sanitation coverage is rampant, primarily

because of the beneficiaries lack awareness, ownership and maintenance of the physical infrastructure ('Misnaming Toilet Building as 'Swachhata,' 2018). These outcomes raise serious doubts over the achievements, particularly the efficiency, effectiveness and sustainability of the Swachh Vidyalaya Abhiyan.

While there is only one year left to observe the 150<sup>th</sup> birth anniversary of the Father of the Nation with a "completely clean India", it is indeed pertinent to examine whether the Swachh Vidyalaya interventions have been efficient, effective and sustainable. The present study intends to answer these questions by evaluating the achievements of the 'Abhiyaan'. The sample for the study were drawn from the schools located at different states of North East India, which were intervened by two major power sector PSUs viz. NEEPCO and NHPC Ltd. Between 2014-2017, NEEPCO<sup>1</sup> and NHPC's Subansiri Lower Hydro Electric Project<sup>2</sup> constructed 664 and 3128 numbers of toilets in 386 and 2702 schools respectively under the Abhiyan. Out of the total 3792 toilets, 2574 have been new boys' toilet, 1172 have been new girls' toilet, 24 have been renovated boys' toilet and 22 have been renovated girls' toilet. This constitutes a major component of the total toilets constructed by all PSUs under the Ministry of Power. It may also be noted that, all together, 141636 toilets were constructed by the PSUs under the Swachh Vidyalaya Abhiyan, of which the Ministry of Power alone contributed about 45 percent (MHRD<sup>3</sup>).

## 2. Towards a Theory of Change

Programmes are usually designed depending on an underlying Theory of Change (TOC) – either explicit or implicit. The TOC describes the logical path along which the desired intervention is envisaged to produce the results. This path, essentially, depicts the logical flow from programme inputs to programme outputs, then from programme outputs to programme outcomes, and finally, from programme outcomes to programme impact. The programme guideline of the Swachh Vidyalaya Abhiyan (MHRD, 2014, p.3) does provide an underlying TOC. It is maintained that improved sanitation and hygiene in schools results in improved health and less diseases, which, in turn, results in improved attendance of the students. This facilitates better educational outcome of the students leading to economic growth and development in the society.

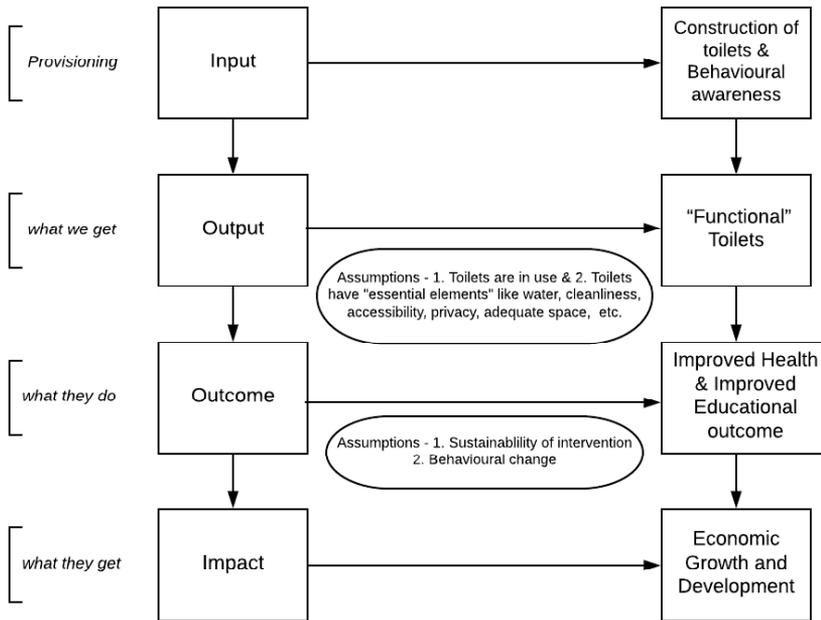
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<sup>1</sup> <http://swachhbharat.neepco.in/index.php>, accessed on August 28, 2018

<sup>2</sup> <http://www.nhpcindia.com/writereaddata/Images/pdf/SwachhVidyalayaReport17.pdf>, accessed on August 28, 2018.

<sup>3</sup> <http://103.7.128.243:8085/swachhvidhyalaya/>, accessed on August 28, 2018

**Figure 1: Swachh Vidyalaya – The Theory of Change**



More specifically, Swachh Vidyalaya intervention provides physical facilities i.e. construction of toilets with provisioning of water as input, which is expected to result in a ‘functional’ toilet as output. The use of toilets by students results in an outcome of improved health and reduced morbidity reflected in their improved attendances. The better attendance is envisaged to result in better performances attracting more students to school leading to improved enrolment. This finally, will result in economic growth and development in terms of long term impact of the programme (Figure 1).

**3. Evaluation Framework - Criteria and Indicators**

A robust and rigorous evaluation is premised on a carefully and scientifically designed evaluation framework. The framework draws on the essentials of the programme description for its various elements and components. The programme guideline of the Swachh Vidyalaya Abhiyan (MHRD, 2014) clearly aims at ensuring every school in India to have a “set of functioning and well-maintained water, sanitation and hygiene facilities”. The objective of the campaign is, according to the programme guideline, to “produce a healthy environment” and to “develop and support health and hygiene behaviour”. Therefore, the campaign essentially entails two components - a) availability of the physical facilities and b) behavioural change practices. The overall “functionality”, thus, depends on not in any one, but on realisation of both the components.

The present evaluation is aimed to be an outcome evaluation rather than an impact evaluation. The reason for this is simple - the short time-lag involved. The Swachh Vidyalaya interventions of the two selected PSUs were carried out during 2014 - 2016.

The evaluation is carried out during 2017-18, less than two years of post-intervention. Impact being a long-term phenomenon, its evaluation, therefore, is not feasible at this point of time.

The present evaluation is based on three evaluation criteria - efficiency, effectiveness and sustainability. It may, however, be mentioned that since the programme is implemented as a part of the national commitment fulfilling the obligations of the Right to Education Act, the criteria of relevance is supposed to be automatically fulfilled. The criterion of efficiency is applied at the level of output. The output is efficient only when the essential elements of Swachh Vidyalaya (given in pp.17-18 in the guideline) are fulfilled. These elements include adequate sanitation, privacy and space, hand-washing facilities as well as practice, drinking water, regular operation and maintenance, capacity building and behavioural activities. The efficiency is, accordingly defined as functionality of the toilets - i.e. functional toilets are complete in respect of the essential elements - hence, more efficient in delivering the desired outcomes.

The criterion of effectiveness is applied at two levels - both at the level of output as well as outcome. Evidently, the output is effective when it is in use. On the other hand, the outcome is effective when anticipated results are obtained. There are two intended outcomes of provisioning toilets for the students in general and separate toilets for girl students in particular. First is improved health status and second is an improved educational performance. Studies have indicated that access to school WASH programme including quality of school toilets has significant and positive impact on enrolment, school attendance and education performance (Birdthistle, Dickson, Freeman, & Javidi, 2011; Dreibelbis et al., 2013). In this paper, the outcomes are captured through overall school attendance rate and overall enrolment in the schools. Overall school attendance rate is taken as the percentage of number of students present multiplied by the number of working days out of the total enrolment multiplied by number of working days, viz. proportion of student-days attended out of the total student-days. The attendance is taken as an indicator of good health reflected by reduced number of days when children fall sick and, hence, being absent. The overall enrolment is taken as an indicator of better educational performances attracting more students to the school.

The criterion of sustainability is applied at the level of outcome. The impact is consequent on the sustainability of the outcome. The two interconnected outcomes - improved health and improved educational performances are sustainable when comprehensive perspective of sanitation is put into practice. The comprehensive perspective of sanitation includes, apart from physical facility of functional toilets, the other two components viz. drinking water and better hygiene behavioural practices. Besides, maintenance of the toilets also contributes positively towards sustainability. The above, thus, constitutes the Logical Framework (Log-Frame) of the present evaluation of the Swachh Vidyalaya campaign which is summarised in Table 1.

**Table 1: Evaluation Log-Frame**

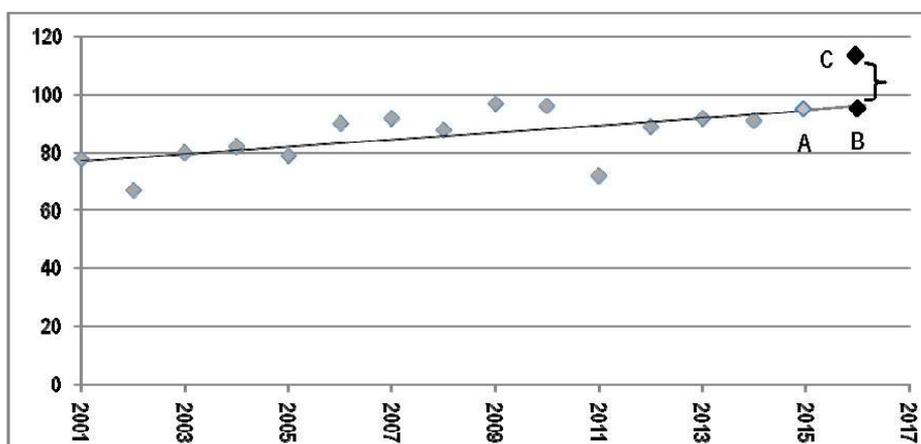
<b>Evaluation Criteria</b>	<b>Level</b>	<b>Indicator</b>
Efficiency	Output	Whether the essential elements of Swachh Vidyalaya programme guideline have been fulfilled?
Effectiveness	Output	Whether toilet is in use?
	Outcome	Whether <ul style="list-style-type: none"> <li>a) Attendance rate has improved?</li> <li>b) Enrolment has improved?</li> </ul>
Sustainability	Outcome	Whether <ul style="list-style-type: none"> <li>a) Complementary facilities available?</li> <li>b) Better behavioural practices exist?</li> <li>c) Maintenance of the facility is ensured?</li> </ul>

#### 4. Evaluation Method

Generally speaking, any evaluation attempts at attributing results to specific interventions. From the Log-Frame presented in Table 1, it is, however, obvious that barring the effectiveness of outcome intended to be measured in terms of improvement in the attendance rate and enrolment, other criteria of evaluation don't necessarily require any attribution. Notwithstanding, given the nature and the context of the programme, specific attribution even for the attendance rate and enrolment, is met with several challenges.

The first challenge relates to the saturation nature of the programme. It is envisaged that all schools will be covered under the programme. This, therefore, entails the practical problem of obtaining an appropriate 'control group' i.e. a set of schools without intervention which are otherwise similar to those having intervention for making necessary comparisons. This eliminates the possibility of applying several standard evaluation methods - experimental as well as quasi- experimental such as propensity score matching or double difference.

The second challenge is regarding the possible counterfactuals - determining what could have been the situation without the intervention. Usually, such a comparison is arrived at by examining 'pre' and 'post' scenarios provided all intervening factors are suitably controlled. It is observed that there is no specific new intervention that directly targets school attendance. Therefore, a modified 'pre' and 'post' comparison (Figure 2) is applied in case of attendance rate to evaluate the programme effect. Since the programme period was 2014 to 2016, attendance rate of August and September 2015 is compared with that of the August and September 2017.

**Figure 2: Modified Pre-Post Method**

The modified pre and post method is described in the above figure. In this method based on the data for the period 2001-2017 a trend line is fitted. Here A is the observed value for the year 2016. The projected value of for the year 2017, based on the past trend is obtained as B, where as the actually observed value is found to be C. The Modified Pre-Post Method will consider the difference between B and C, rather than usual Pre-Post Method of considering A and C. B provides the counterfactual in absence of the intervention, controlling all other things.

This method is particularly useful in the case of enrolment, which offers some special challenges. First, there have been several competing programmes aiming at improving school facilities which implicate enrolment. To statistically control all such intervention presents myriad practical difficulties. Second, indicator like enrolment also contains a “trend element”. It is, therefore, necessary to incorporate trend element in the ‘pre’ intervention scenario.

With a modified pre-post method (Figure 2), the present methodology utilises the enrolment data given by DISE for deriving the counterfactual scenario for enrolment. Based on the trend of last five years of enrolment, a projected enrolment for 2017 is obtained for the select schools, which are taken as the counterfactuals. The observed enrolment for 2017 is then compared with the projected enrolment to see the programme effect.

Two statistical tools are then applied to draw conclusions regarding effectiveness of the outcomes viz. attendance rate and enrolment. First, proportion of individual schools where post intervention scenario is better than the pre intervention scenario is obtained for evaluating success against the hypotheses. Second, averages of ‘pre’ and ‘post’ are compared by the paired-t test to evaluate the aggregate programme effect and success.

#### 4.1. Sampling

Schools are considered as the primary sampling unit for the present evaluation. The present evaluation defines success of the programme as the three-fourth (i.e. 75 percent) of the schools qualifying or fulfilling the specific criteria with a margin of error 5 percent. This, in general, defines the confidence interval for population estimate to qualify the programme as a 'success'. Given this, a sample of 350 out of the total 3088 schools found to be good enough to draw conclusions with a level of confidence of 97 percent, with a fixed design effect of 1.1 to accommodate stratification by school type viz. primary, upper primary and secondary. Based on the proportion, 300 sample schools from NHPC's and 50 sample schools from NEEPCO's intervention list was considered. The sample schools were than selected at random. The sample distribution of schools covers the states of Arunachal Pradesh (25), Assam (317), Meghalaya (3), Mizoram (3) and Tripura (2).

#### 5. How Efficient and Effective the Intervention Is?

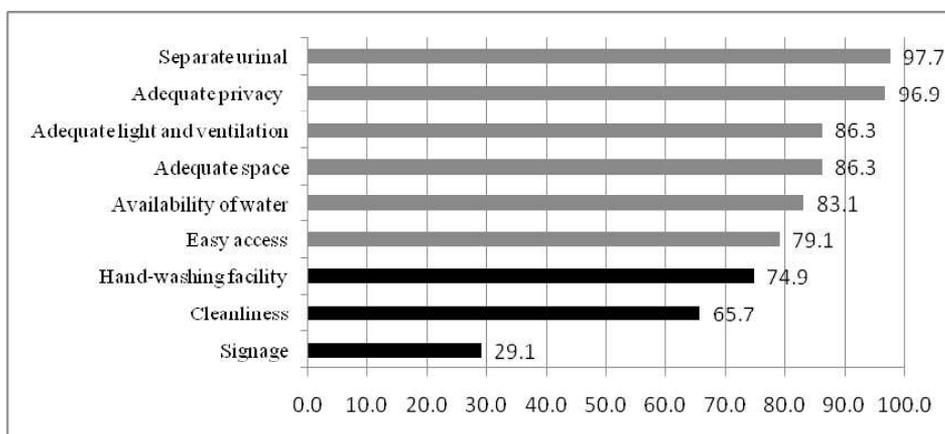
As evident from the Log-Frame (Table 1), there are four main questions which the present evaluation intends to answer. The questions to which answers are attempted are:

- a) Whether the interventions can be considered as efficient in terms of the output
- b) Whether the interventions can be considered as effective with respect to the output
- c) Whether the interventions can be considered as effective with regard to the outcome
- d) Whether the interventions can be considered as sustainable in terms of the outcomes

##### 5.1. Efficiency in Terms of Output

The efficiency in terms of output is measured by taking note of the "essential elements" of the programme. Efficiency has been defined as fulfilment of the essential elements mandated by the programme guideline. From the sample of 350 schools it is found that total number of toilets constructed is 443 which includes 432 new construction (boys 290, girls 131, common 11) and 11 renovation (boys 4 and girls 7).

There are some schools (70 to be precise) where more than one toilet has been constructed. The school being the primary sampling unit, in such situation, the school has been considered to fulfil the essential elements when all the toilets built under the Swachh Vidyalaya Abhiyan qualify for the same. Following the programme guideline, nine "essential elements" of a "functional" toilets were considered for evaluating efficiency of the outcome which include availability of water, easy access, hand-washing facility, cleanliness, separate urinal, adequate space, adequate light and ventilation, adequate privacy and proper signage. The percentages of schools found fulfilling these essential elements are provided in Figure 3. From the Figure 3, it is obvious that the schools are lacking in four essential elements viz. accessibility, hand-washing facility, cleanliness and proper signage.

**Figure 3: Schools Fulfilling Essential Efficiency Parameter of Toilet (in percent)**

Source: Field work, October – December 2017

To find out the overall efficiency of output, simultaneous fulfilment of the essential elements by schools needs to be considered. Given the nine elements, a school is considered to qualify efficiency criterion in terms of the output if the school has access to round the clock water in toilet and fulfils at least two-third i.e. 6 out of 9 or more elements simultaneously. The number of criteria fulfilled simultaneously is given in Table 2.

**Table 2: Number of Criteria Fulfilled Simultaneously by School**

Number of Criteria	No. of Schools	Percent
0*	59	16.9
4	1	0.3
5	11	3.1
6	45	12.9
7	70	20.0
8	111	31.7
9	53	15.1
<b>Total</b>	<b>350</b>	<b>100.0</b>

\* 0 is assigned to the schools which do not have round the clock water in toilets

Source: Field work, October – December 2017

From the Table 2, it is evident that all together 80 percent school (279 in number) qualify the efficiency criterion of output. Given the expected frequency of three-fourth qualifying criteria, the efficiency criterion of output goes above the expected proportion of 75 percent. It implies that the interventions are efficient in terms of output.

**5.2. Effectiveness of Output**

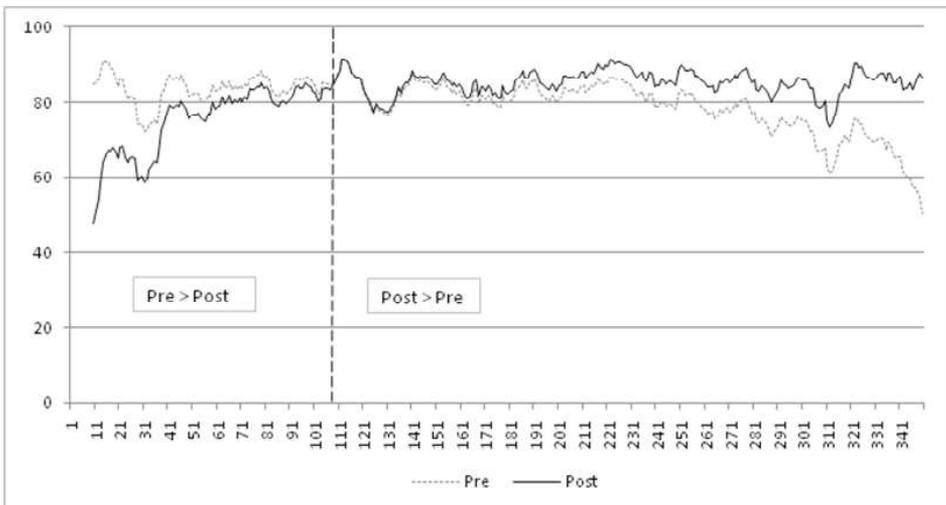
As per the Log-Frame, the effectiveness of output is defined in terms of the use of the output i.e. toilet. When toilets are used by students, only then desired outcome can be expected. It is found that 71 percent of the toilets are in use (314 out of 443) and, hence, effective. With 5 percent margin of error, this gives a confidence interval of 66 to 76 percent which contains the expected proportion of 75 percent. Thus, it may be concluded that the interventions have been effective in terms of output.

It is, also, found that efficiency and effectiveness are both inter-related. Efficient i.e. functional toilets tend to be more effective. It is observed that 75 percent of the total toilets are both efficient and effective. The inter-dependency is found to be statistically significant.

**5.3. Effectiveness of Outcome**

The Log-Frame defines effectiveness of the outcome in terms of two indicators - attendance rate and enrolment of students. As has been described earlier, the attendance rate is used to indicate the improved health and enrolment for improved educational performances of students. The ‘pre’ attendance scenario in selected schools i.e. overall attendance rate of students in the months of August and September 2015 when compared with the ‘post’ attendance scenario i.e. overall attendance rate of students in the months of August and September 2017, it is found that ‘post’ scenario is better than the ‘pre’ scenario in 70 percent of the schools (Figure 4). This gives the confidence interval of 65 to 75 percent that contains the expected frequency of 75 percent. Therefore, with reference to the indicator of attendance rate, the outcome of the intervention can be considered as effective.

**Figure 4: Pre-Post Attendance Rates in Schools (in ascending order of difference)**

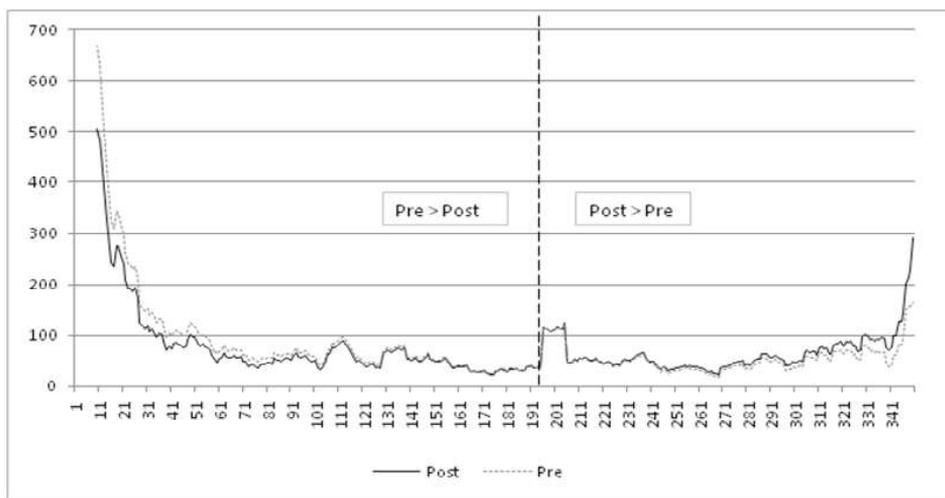


Source: Field work, October – December 2017

Further, it is observed that the average post attendance rate 81.75 percent is found to be higher than the average pre attendance rate of 79.4 percent. The difference in average attendance rate by 2.33 percent is found to be statistically significant ( $t=3.64$ ,  $p<0.000$ ). The intervention, therefore, contributes to improvement in attendance rate, which can be generalised for the population as a whole. Besides, considerable overlap is observed between effectiveness of output and effectiveness of outcome. It is found that 52 percent of the sample schools are effective both in terms of output as well as outcome.

In case of the enrolment, ‘pre’ and ‘post’ scenario comparisons are carried out by ‘modified method’ (see Figure 2). Data from sample reveal that ‘post’ enrolment scenario is better in 45 percent of the schools compared to ‘pre’ enrolment scenario (Figure 5). With a margin of error of 5 percent, this gives the confidence interval of 40 to 50 percent which is far less than the expected proportion of 75 percent. Therefore, in terms of enrolment, the interventions cannot be considered effective. Overall, the average enrolment in pre-intervention scenario (given by the counterfactuals) was found to be 88, which is higher than the post intervention enrolment of 83. The difference is not found to be statistically significant ( $t= - 3.5$ ,  $p>0.000$ ).

**Figure 5: Pre-Post Enrolment Scenario in Schools (in ascending order of difference)**



Source: Field work, October – December 2017

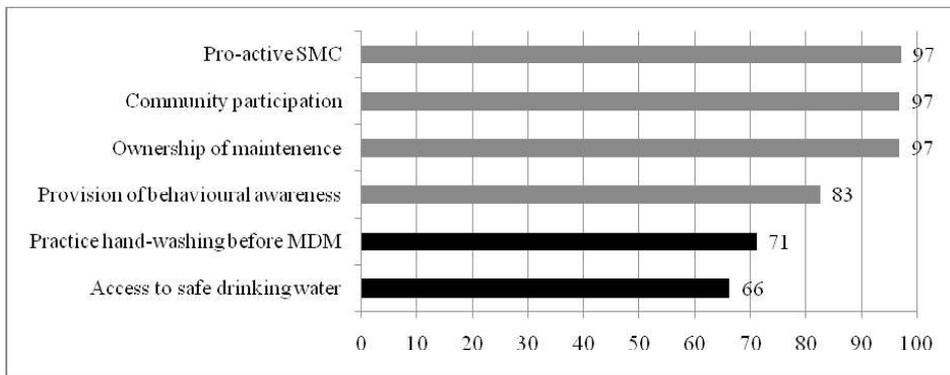
Notwithstanding, the increase in enrolment is to be seen in proper perspective. Given the fact that only one academic session has passed since the intervention, the time-lag is too short for assessing improvement in enrolment in school. Secondly, since all schools are being covered under the campaign, focusing on enrolment in any one particular school is met with practical limitations. Thirdly, enrolment depends on demographic distribution and factors which do not change in a short period of time. It is therefore expected that the intervention will start showing up results in improvement in enrolment by reducing over the period of longer time.

**5.4. The Sustainability Issue**

The sustainability of the outcome is a primary requirement to continue the effectiveness of the outcome and resulting in impact envisaged. The Swachh Vidyalaya Abhiyan takes thoughtful note of the comprehensive perspective of sanitation. This include, besides physical facilities of sanitation, access to drinking water and behavioural change. Moreover, ownership and maintenance of the facilities created are also vital ingredients of sustainability.

It is found that only 66 percent of the schools have access to clean and safe drinking water. About 71 percent schools have reported to practice regular hand-washing before mid day meal (MDM) and 83 percent of the schools said to have provided behavioural awareness. Likewise almost all schools (97 percent) said to have own the maintenance of the toilets while equally overwhelming number of schools reported to ensure community participation (97 percent) with a pro-active role of the school management committee (97 percent) (Figure 6). It may be noted that with a defined margin of error of 5 percent for five of these (except for access to safe and clean drinking water) produces a confidence interval that contains the desired proportion of 75 percent. It is, therefore, concluded that the interventions qualifies the sustainability criteria in terms of outcome.

**Figure 6: Drinking Water, Maintenance and Behavioural Practices (in percent)**



Source: Field work, October – December 2017

The Swachh Vidyalaya intervention, as evident from the above findings, contributes to improvement in attendance rate, which can be generalised for the population as a whole. Besides, considerable overlap is observed between effectiveness of output and effectiveness of outcome. It is found that 52 percent of the sample schools (183 numbers) are effective both in terms of output as well as outcome. In terms of improving enrolment, however, the interventions cannot be considered effective. This needs to seen keeping in view the too short a time-lag involved in assessing a long-run phenomenon like enrolment. The intervention qualifies the sustainability criteria which consider, besides physical facilities of sanitation, ownership and behavioural change. However, out of the nine essential elements of school sanitation considered in the

study, the schools mostly lack in four essential elements viz. accessibility, hand-washing facility, cleanliness and proper signage.

### **6. What Limits Functionality of the Toilets?**

Two things are found to be primarily responsible for most of the toilets remaining unused. The first is the behavioural practices which remain outside the present intervention. Though, overwhelming number of schools reported to have provided behavioural awareness, hand washing with soap before the mid day meal still remains as a challenge. The second is the lack of cleanliness. Being a holistic approach, sanitation requires, besides physical facility, adequate water for cleaning and flushing of toilets and regular operation and maintenance. Though almost all the schools reported to have owned the maintenance of the Swachh Vidyalaya toilets, lack of dedicated fund for operation and maintenance still remains as a challenge to ensure clean usable toilets. For instance, the average annual grant for the schools of Assam during the year 2016-17 was only 5000/- to 7000/- rupees, which was found to be inadequate to divert from regular mandatory operational expenses to buy soap, toilet cleaning liquid and also to hire man power for regular maintenance of the toilets. Though specific guideline was issued and Rs. 2500/- was earmarked separately for maintaining the Swachh Vidyalay toilets for the state of Assam during the financial year 2018-19, delay in releasing the fund again impedes the desirable outcome.

The lack of water in toilets, particularly in hills, is another limiting factor. The Swachh Vidyalaya guideline mandates provisioning of water in toilets. This important requirement is fulfilled by creating a facility for storage of water, rather than providing a source of water, in majority of the cases. To store water, one has to fetch water from a distant source. This, practically, did not solve the problem of water, rather introduced another problem of storing water for toilets. As a result, once the initial storage exhausted, the tanks remained empty. Since most of the toilets lack water, they now remain locked and unused. In this context, scientific water management system for schools located in difficult terrain becomes very important. Although, some of the schools were found to be contemplating on developing such systems, including rain water harvesting, the school and the community were found lacking in sincere efforts and also inability to adopt such system. Hajadisha (B) LP School in Dima Hasao, Assam, for instance, attempts at rain-water harvesting with the gravity flow to provision water directly to the toilets. However, the attempt is not bringing results as the storage capacity again is very limited. Besides water in toilets, schools also lack in mandatory provision of access to safe and clean drinking water, which also indicates lack of convergence of the programme to complementary facilities to ensure sustainable outcome.

Both, accessibility and physical quality of the toilets are other important dimensions of functionality. In 63 numbers of schools the toilets were not functional because those were not accessible to the students. It was primarily because, due to lack of maintenance grant, the school management kept some toilets either locked or confined their use to the teachers only. It was also found that the interventions carried out under the

initiative primarily aimed in providing a toilet block merely to fulfil physical achievement, particularly in Mizoram and Arunachal Pradesh. It was observed that the initiatives have fulfilled hardly any quality construction and convergence with the complementary facilities like water, adequate space and ventilation.

Besides, recognising complementarities among the school facilities are also critical in delivering desired results. Field insights reveal that even lack of boundary wall can also impede functionality of toilets. For instance, in Haver Deswali LP School, Dima Hasao District, it was reported that facilities created by NEEPCO have been damaged by miscreants since the school lacks boundary wall and is not well-protected. Field insights also revealed that lack of enrolment can also impede functionality of toilets. For instance, the toilets constructed at 574 No. Kulabari Lower Primary School of Lakhimpur District of Assam and Government Primary School, Lora of Arunachal Pradesh remained unused due to non enrolment of students during 2016-17 academic sessions.

## 7. Conclusion

All these notwithstanding, it is clear that interventions carried out under the initiative primarily fulfilled the physical requirement of toilets for school sanitation. It has been observed that the initiatives have hardly any convergence with the complementary facilities like that of drinking water and, most importantly, behavioural change practices in schools. It has been realised that this is primarily because of the obligatory nature of the programme implementation, which focused more on accomplishment and achieving time-bound targets rather than desired outcomes. Non-functional and unclean water, sanitation and hand-washing facilities embarrass achievement of behavioural change among the students for which the huge investments made under the 'Abhiyan' in installing these systems may go in vain. The mode of implementation, thus, has defeated the comprehensive perspective with which the programme was designed. The learning from this experience has been that both the programme design and the mode of implementation need to be consistent in perspective if the programme is to be successful in delivering the desired outcome.

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