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Sustainable School WASH Plan for Mayurbhanj District, Odisha, India

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Abstract: ***This paper aims to report on Sustainable School WASH (Water Sanitation and Hygiene) Plan for Mayurbhanj District, Odisha. Children have a right to basic facilities such as toilets, safe drinking water, clean surroundings and basic information on health and hygiene. Mayurbhanj district is a land-locked district with a total geographical area of 10,418 Sq.Km. and situated in the Northern boundary of the state with district Head quarters at Baripada. The objective of district school WASH plan is to ensure improvement of health and education of school children through better hygiene behavior in a healthy school environment. A combination of various research techniques was adopted in the present study. The methodology chosen followed a two-pronged strategy, including quantitative and qualitative approach. In nutshell, to know the true picture on the status of WASH in schools and its constraints, strategy for implementation of plan, it is critical for state government, departmental officers, researchers, Policy makers and partners to develop and institutionalize a robust monitoring system for proper WASH plan at the school. Timely feedback can help in planning new interventions and taking decisions on investment, scaling up, manpower planning and also policy. Adequate and timely information on WASH in schools would also generate evidence for lobby and advocacy.***

Keywords: School WASH Plan, Sustainability, Participation, Children, Stakeholders

1. Introduction

Unsafe water, inadequate sanitation and poor hygiene practices are major causes of morbidity and mortality. The Department of Drinking Water Supply (DDWS) reported that five of the ten most common causes of death in children are due to poor WASH situations. Inadequate school WASH facilities contribute towards disease burden among children causing dropouts, absenteeism, retarded intellectual progress and inability to participate in games / sports / extracurricular active ties. Several studies have pointed out that poor WASH situation hampers enrolment, retention and completion of education by girls.

India has one of the largest numbers of school going children, especially in rural area. There are about 6.3 lakh rural schools both primary and upper primary with 8 crore school going children. Promoting a clean and hygienic school environment is a commitment of Government of India to inclusive and sustainable development. The Ministry of Drinking Water and Sanitation supports this objective through its flagship total Sanitation Campaign.

The School Toilet facilities at schools, since the inception of the Sarva Siksha Abhiyan (SSA) show steady improvement over time. Before the RTE, the provision of separate girls' toilet in elementary schools was visibly deficient, with 34 percent of schools that only had common toilets for boys and girls during 2002-03. In case of primary schools, the share of schools which had separate girls' toilet was only 15 percent at the same time. The RTE made it mandatory to provide separate toilets for boys and girls in all elementary schools. Sanitation and Hygiene Education (SSHE) programme started more than a decade ago, has a specific component for providing water and sanitation facilities in schools and for promoting usage of toilets and hand washing with soap at appropriate times.

Children have a right to basic facilities such as school toilets, safe drinking water, clean surroundings and basic information on hygiene. Water, sanitation and hygiene in schools create an enabling environment which secures children's dignity, safety, health and attendance in classes. Children are more receptive and quick to adopt and sustain change. They become agents of change among their peers, families and communities. Teachers as influential individuals, supported by the school management committees, play an important catalytic role. Thirty-six percent of schools in Odisha still have no functional toilets and 76 percent have no hand-wash facilities. More than one-third schools do not have even one functional toilet while 57 percent of high schools do not have functional toilets for girls.

The following points present the degree of vulnerability suffered by school children due to very poor WASH arrangements in schools.

- Faulty construction due to defective design or monitoring on quality
- Vertical implementation of sanitation program without ensuring integration of water supply causing non-use, unclean interiors, breeding of flies, mosquitoes, harmful vectors and foul habitat conditions.
- Non-detection of worm infestation caused by poor WASH leading to several forms of diseases among children.

- Emphasis on budget spending rather than creating and enabling environment for proper use as well as operation and maintenance.
- Lack of community involvement and participation (village water and sanitation committee) in demand generation and advocacy for timely release of grants and completion of project followed by proper use and maintenance.
- Lack of space enabling children to articulate and express their difficulties and seek redressal from duty bearers.

2. Study Area

Mayurbhanj is a land- locked district with a total geographical area of 10,418 Sq.Km. and is situated in the Northern boundary of the state with district Head quarters at Baripada. The district lies between 21^0 16' and 22^0 34' North latitude and $85^0$40' and 87^0 11' East longitudes. The district is bounded in the North by Midnapore district of West Benagal, Singbhum district of Jharkhand in the South, Balasore district in the west and by Keonjhar district in the East. (See fig-1) The district is 559.31 mt. above the sea level. In 2011, Mayurbhanj had population of 2,513,895 of which male and female were 1,253,633 and 1,260,262 respectively. In 2001 census, Mayurbhanj had a population of 2,223,456 of which males were 1,123,200 and remaining 1,100,256 were females. Mayurbhanj District population constituted 5.99 percent of total Maharashtra population. In 2001 census, this figure for Mayurbhanj District was at 6.04 percent of Maharashtra population.

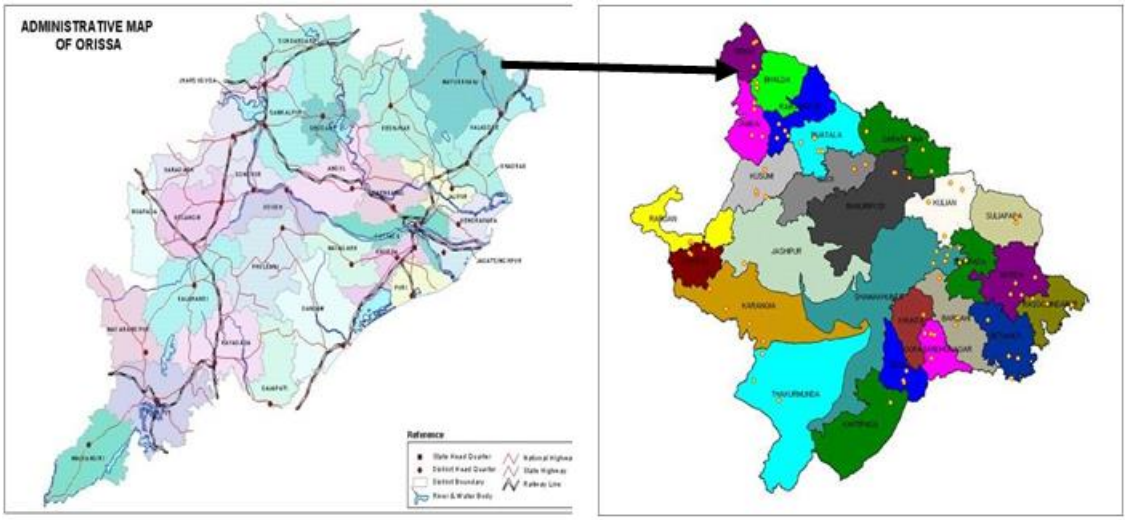


Figure 1: Location Map of Mayurbhanj District, Odisha

The table-1 shows different categories and school management system in Mayurbhanj district of Odisha. Out of 4774 schools, 212 are aided school, 157 are unaided, 1 only centrally aided, 15 are NCLP school, 4205 are SME school, 152 are TRW school and 32 are unrecognized school. So below mentioned table depicts that higher number of schools under School and Mass Education Department.

Table 1: Category wise School with Management Status, Mayurbhanj District

Sl No	Category of School (Code)	Description	Type of Management							Total
			Aided	Un Aided	Central	National Child labour Programe Depart (NCLP)	SME	TRW	Un-Recognised	
1	Higher Secondary Only	Elementary Class- up to X only HS	0	2	0	0	1	0	0	**3**
2	Pr. with Up.Pr. & Sec./H. Sec.	Class - I to Class - X	0	4	0	0	5	13	1	**23**
3	Primary	Class - I to Class - V	4	28	0	13	2717	7	16	**2785**
4	Primary with Upper Primary	Class - I to Class - VII	1	42	0	1	931	30	5	**1010**
5	PS to UPS Upgraded to Class-VIII/IX	Class - I to Class - IX	0	2	0	1	70	70	3	**146**
6	Secondary Only	Only HS Class - VI to X	155	60	0	0	247	6	3	**471**
7	Secondary with Higher Secondary	Class - VI to Class - X	1	2	0	0	1	0	0	**4**
8	Up. Primary with sec./H.sec	Class - VI to Class - X	4	4	1	0	24	23	1	**57**
9	Upper Primary only	Class - VI & Class - VII	47	12	0	0	196	0	3	**258**
10	UPS only Upgraded to Class-VIII/IX	Class - VI to Class - IX	0	1	0	0	13	3	0	**17**
Grand Total			**212**	**157**	**1**	**15**	**4205**	**152**	**32**	**4774**

Source-: *Department of School and Mass Education*

3. Study Objectives

The objective of the study is to accumulate ground level information related to WASH infrastructures in schools which would enable to develop a district WASH plan to ensure basic water and sanitation facilities in the schools. This would also provide a road map to the schools and education department to take necessary steps to upgrade the school environment for improved health and education of school children through better hygiene behavior. The school sanitation and hygiene promotion action plan shall focus on takes care of both hardware and software aspects of school WASH to bring changes in improved hygiene behavior of students and community as a whole. The hardware is the physical sanitary infrastructure created in the school. The software is the activities aiming to promote hygiene practices among school children that would help to prevent water and sanitation related diseases.

4. Study Methodology

A combination of various research techniques were adopted in the present study. The methodology was chosen followed a two-pronged strategy, including quantitative and qualitative approach. This was done with a view to produce a richer set of findings. The quantitative survey was conducted to obtain precise and mostly pre-coded responses from each respondent (teacher) individually across the district. On the other hand, the qualitative method generated required information that was used to corroborate the quantitative findings.

5. Approach

The process and methodology was discussed with the Chief Engineer, State Water Sanitation Mission (SWSM), Executive Engineer, Rural Water Supply and Sanitation (RWSS), Mayurbhanj, and District Project Coordinator (DPC), Sarva Sikhaya Abhijan, Mayurbhanj. The process was participatory in nature and followed by three broad mechanisms. Firstly, the external team was familiarized on different tools and methodologies followed for quantitative and qualitative data collection using questionnaires and guidelines designed by CYSD-Plan India. The methodology of the Primary data collection process was based on three steps like; the quantitative data collection by using questionnaire, data validation, and report finalization.

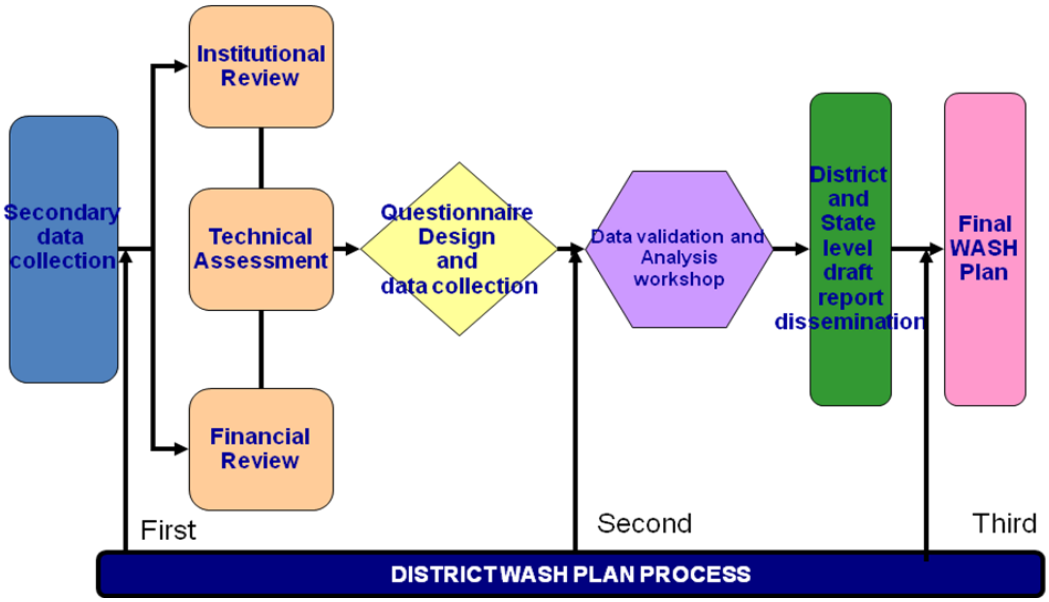


Figure 2: Approach

As a secondary research tool, all the existing literatures, newspapers, Government records were thoroughly scanned. Interactions made with Government Officials like Block Development Officer, Block education Officer, Rural Water Supply & Sanitation In charge and other related officials for sharing the required data and information. Training imparted to the Project staffs on various techniques and data collection processes and how they will use these techniques efficiently during information collection.

6. Limitation

Due to less time frame and inadequate fund allocation for study impacted on incorporation of private schools, higher secondary schools and Anganwadi centers functioning in the district.

7. Primary Data Analysis

The collected data analyzed based on the following parameters;

- Water, sanitation and hand washing facilities in schools (infrastructures)
- Hygiene knowledge and practices (among students and teachers)
- Solid and liquid Waste disposal system in schools
- Operation and maintenance mechanisms of WASH facilities
- School-community linkages (monitoring and sustainability)

In addition to this, it was equally important to gather information from communities on school functioning and

focus given to the households of school going children. If children's opinion is solicited at regular interval on quality and functionality of WASH facilities in the schools, it can instill a feeling of pride, dignity, self-esteem in them and aware them on importance of WASH in schools.

In 2012, CYSD-Plan India conducted a survey and covered 4468 Govt. schools (primary and upper primary, upper primary, high school, and Nodal schools) of Mayurbhanj district and the findings of survey are as follows with different indicators:

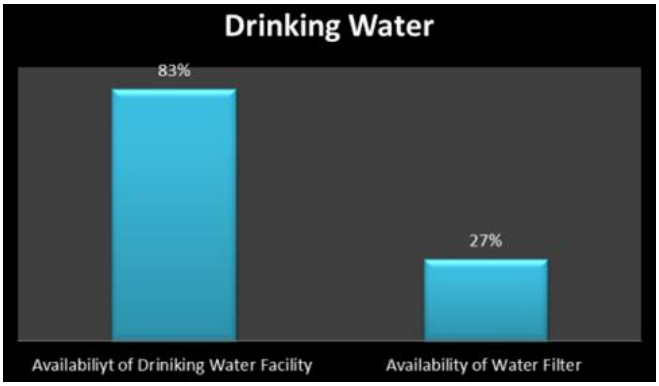
Table 2: Conditions of the WASH Facilities and Infrastructures in Schools of Mayurbhanj District:

Typology of WASH facility	Numerology of WASH facility	WASH Facility		Overall Condition	
		Adequate	Not –Adequate	Functional	Non-Functional
(a)Drinking water					
Water facility in school	3714 (83.12%)	61%	39%	48%	52%
Availability of Water filter	3411 (76.34%)	57%	43%	55%	45%
(b)Toilet and Urinal					
Toilet for boys	1213 (27.14%)	30%	70%	56%	42%
Toilet for girls	1253 (28.04%)	35 %	65%	57%	43%
Common toilet	1509 (33.77%)	44%	66%	38%	62%
Urinal facility	2368 (52.99%)	55%	45%	36%	64%
(c)Hand washing facility	3203 (71.68%)	57%	43%	40%	60%
(d) Waste disposal					
Non-Availability of Garbage Pits for Solid waste	2169 (48.54%)	40%	60%	55%	45%
Non-Availability of Soak Pits for Waste water	1860 (41.62%)	38%	62%	46%	54%

The key findings are highlighted below:

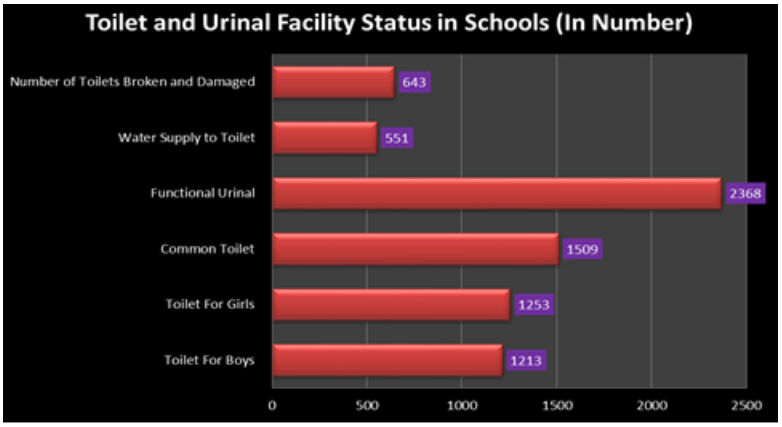
(a)Drinking water:

In 83% schools drinking water facility is available. It is in the form of deep bore well fitted with submersible pump; pipe water supply and tube well and open well. All these sources are safe for human consumption. However, it is observed that operation and maintenance of these facilities are a serious concern. In 27% of schools it is either not available or it is not maintained. In some of the cases submersible pump is out of order, tube well is out of order, tube well is functional but the water is unfit for consumption as it is hard water or loaded with Iron or loaded with other bitter taste minerals or heavy metals, water sources available in broken condition, pipe and taps available in broken condition etc. Really it is the matter of concern. 27% is also too high and can't be neglected. Availability of drinking water should be 100%. In 76.34% schools avail water filter is available. It's good. But the percentage of non-availability of water filter is still too high. It is also observed that filters are not properly handled by the students and teaching staffs in schools.



(b)Toilet and Urinal:

Majority of schools have toilets and urinals both for boys and girls. In 27.14% of school's toilet available for boys, in 28.04% of schools toilet available for girls and in 33.77% of schools common toilet is available. It indicates in 88.95% of schools the toilet facility is available. But it is observed that in majority of cases the toilets for both of the sexes are present adjacent. Only a partition wall separates the two. In some cases, there is no door at all. In majority of cases school administration have not taken in to account regarding to the privacy of girl students. It is matter of concern. That may be a toilet or urinal that should be well maintained and there should be availability of proper wash facility and those should be hygienically maintained. 90% of toilets are not hygienic. No liquid hand wash, sanitizer, bleaching and phenyl not available in toilets. Due to poor construction standard many of the toilets and urinals available in broken condition. Many toilets and urinals emitting foul odour and filled with faecal matters. Non availability of proper water supply to the toilet is an another problem. In many cases it is available at a long distance from the class rooms. Change room for girl students is barely needed, but it is not available. Toilet or Urinal can't be used as changing room.

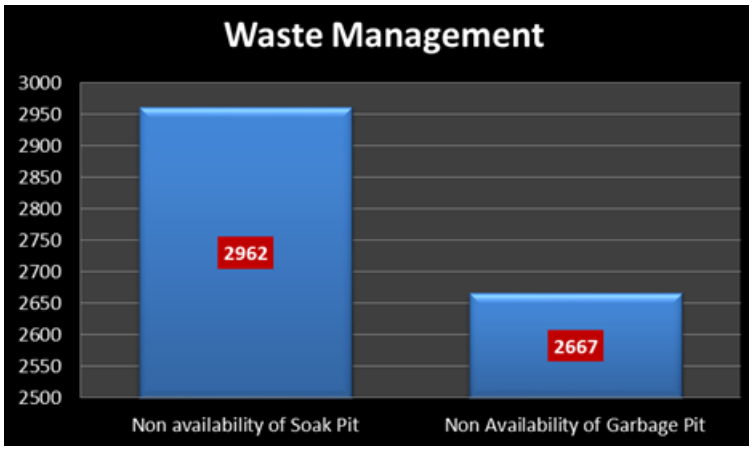


(c)Hand washing facility:
Hand washing facility is available in majority of in 3203 (71.68%) schools. It is also well and good. But in many schools the facilities are not well managed and hygienically maintained. Due to lack of running water, distance from class room, non-adherence of anthropogenic height for the students and poor quality of wash platform are not attracting the student to use.

(d) Waste Disposal Management:

(i) Solid Waste
In majority of schools there is facility of waste disposal. But in majority cases it is done for the sake of formality. It is not well done or well maintained. In many cases for solid waste disposal there is only a raw pit just dug on soil surface or 2-3 cemented rings are put together to form a dust bin. In majority of cases solid wastes are not removed periodically, as a result the dust bins remains non-functional.

The liquid waste management is very poor. The periphery of tube wells is the most in hygienic places. Foul odour waste water logged in the premises of schools. There is non-availability of proper drainage system.



(ii) Waste Water
Waste Management is a major concern in all schools. In 48.54% of surveyed school's garbage pits are not available to dispose the solid wastes generated form the school premises. Similarly, the waste water generated from the schools are not managed properly due to non-availability of Soak pits in 41.62% schools. School Committees are present in schools but in many cases it is non-functional. Proper planning is needed to activate these Committees of the schools.

7.1 Development of School District WASH Plan

The District WASH Plan was developed focusing on the findings at school levels where WASH facilities conditions are either poor or needs immediate attention. The key plan pointers are mentioned below:

1) Availability of adequate personal hygiene materials for the students
2) Non availability of Changing Room Facility with sanitary napkins for the girls
3) Absence of Lady Teacher in post primary schools
4) Non availability of running Water Facility in Toilets
5) Availability of limited hygiene literatures and IECs
6) Lack of First Aid Kit
7) No Separate sanitary block (toilet, Urinals, hand washing etc) for boys and Girls
8) Poor waste disposal management (Solid and Liquid) at school level
9) Inadequate Water Storage facility
10) Inadequate Hand washing Facility
11) No School Boundary Wall in some schools
12) Limited provisions for Hygiene Awareness
13) No Water Quality Testing kit
14) No Washing Platforms for cleaning utensils

15) Inadequate infrastructure & Permanent Building in Anganwadi centers with provision of water and Toilet Facility
16) Poor operation and Maintenance of WASH facilities in schools

7.2 Strategy for Plan Intervention and Solution:

In Mayurbhanj, total number of schools are 4468 as per the Government record. Out of 4468 Schools, in 25 Government schools, CYSD-Plan has already created WASH facilities in the year 2011. The district WASH plan shall be developed accordingly for rest schools based on the survey findings. The private school WASH infrastructures has to be created by their own efforts. However, the government has to ensure the adequate WASH facilities in the schools.

The move further, committees were constituted at district and block level with the following members.

Member of DISTRICT WASH Plan Committee

- Chairman – Collector and District Magistrate
- Vice chairman- Additional District Magistrate
- Member convener – Executive Engineer, RWSS
- Member Secretary - District Project Coordinator (DPC)
- Member- District Planning Member
- Member – Chief Medical Officer
- Members- All Cluster Resource Center Coordinators
- Member – Child Development Project Officer
- Member- Grama Panchayat Officer
- Member- Working NGOs of the district as per their track record
- Other extension officers of the district and Support organizations working in the district level.

Role of DISTRICT WASH Plan members:

- Fund mobilization for infrastructure development
- Monitoring and Supervision of Software and hardware activities.
- Sensitization of Block level Functionaries (Government Officials and Zilla Parishada Members, Block , Grama Panchayat Functionary) members

Member of Block WASH Plan

- Chairman – Block Development Officer
- Vice chairman- Block Education Officer
- Member convener – Sun Divisional Officer, RWSS
- Member Secretary - Block Resource Center Coordinator (BRCC)
- Member- Junior Engineer, RWSS
- Member – Medical officer
- Members- All Cluster Resource Center Coordinators
- Member – Child Development Project Officer
- Member- Grama Panchayat Officer
- Member- Working NGOs of the Block

Role of Block WASH Plan members:

- Plan Implementation and Monitoring and Supervision of Software and hardware activities.
- Sensitization of GP level Functionaries

7.3 Duty Bearer and Organogram of District WASH plan:

7.3.1 Parent Teacher Association (PTA)

It consists of all the parents of the children and the teachers in the block. PTA has to be formed in all schools. The hard ware activities required for schools to be implemented under the supervision of PTA. The PTA is responsible for mobilizing school contribution and for operation and maintenance of the asset.

7.3.2 School Children

The school children who do not have the proper access of water & sanitation facilities and also not adopting the good hygienic practices will be sensitized on different hygiene & sanitation issues during the project cycle by providing child & gender friendly infrastructure in schools and age specific appropriate hygiene education. Children will be organized under student health clubs. The health club leaders shall be trained to ensure timely implementation, monitoring and review of WASH activities in respective schools. They will act as change agents converting all members of the schools as communicators for water, sanitation and hygiene promotion in respective families and communities.

7.3.3 Women group including parents

Parents and women group members especially from School Management Committee, Village Education Committee and representatives of Panchayati Raj Institutions shall participate in the process of program planning meeting & follow-up meetings at school / village / Gram Panchayat level. They will provide suggestions based on assigned roles under different committees and WASH management processes. They will also be the reference point for community level dissemination and entry point for installation of household level sanitation facilities subject to capacity and interest their capacity shall be utilized for hygiene education activities and campaigns at different levels. Besides, their participation also shall be ensured in various advocacy and lobby processes.

7.3.4 School Teachers

The champion teachers identified and trained for WASH promotion shall impart hygiene education among students and provide handholding supports to student health clubs in planning, monitoring and carrying out WASH activities. They also can be involved in sharing case studies on good practices. As converts to WASH, they will be the most effective communicators for other teachers who may not have positive disposition and interest in this program. Later on such network of teachers shall also provide human resource support in promoting sustainability.

7.3.5 Village Education Committee and / Panchayati Raj Institutions

The village education committee shall be involved in planning, implementation, monitoring, and review and sustainability activities during and after implementation of WASH program. Being a permanent community-based institution in charge of school management, it will provide the platform for articulation and expression of needs to mobilize technical and financial resources form concerned line departments. VEC shall also be a crucial facilitator in

promoting household and village level WASH initiatives focusing upon hygienic practices and sanitation usages.

7.3.6 Line department officials and Rural Water Supply and Sanitation:

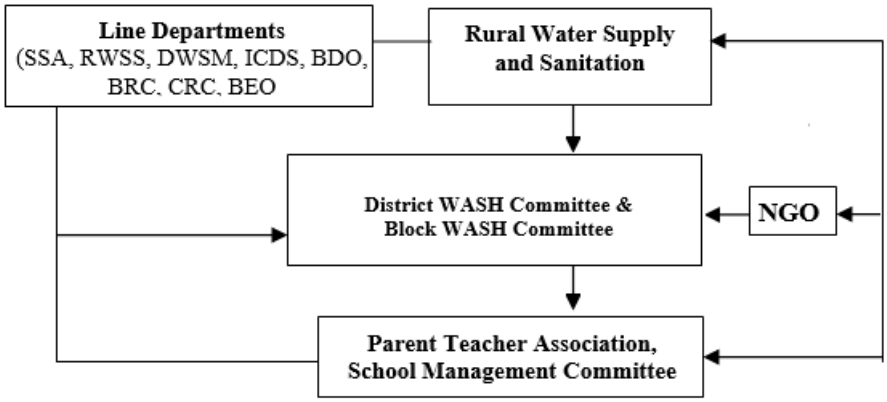
Officials representing Education, Water Supply and Sanitation, women and child development, Sarva Sikha Abhiyan, Public Health Engineering Department and other government agencies involved in implementation of school program shall be frequently involved in interface meetings, policy dialogue, resource sharing, planning, training, extension services as well as operation and maintenance issues for adequate provisioning of WASH facilities in schools and institutions under their jurisdiction. The focus of action shall be block and district with occasional engagements at state level to get approval on desired policy practice changes. The concerned officials shall be provided information on progress with requests for additional support or collaboration to meet the gaps and shortfalls.

7.3.7 Village Water & Sanitation Committee:

The village water & sanitation committees shall provide the institutional framework to implement water and sanitations sector programmatic intervention with government support. The additional resources available with them shall be utilized for attending emergency maintenance needs and general coordination for needed advocacy with duty bearers. They will also be involved closely with student health club, village education committees, and WASH vigilance committees in undertaking various activities on WASH including implementation, monitoring and evaluation.

7.4 Organogram of district WASH Plan

The following figure reflects the involvement of the key stakeholders in each step to prepare the WASH plan. It is because latter stage they will own it and implement it to ensure the quality services for the schools.



7.5 Proposed Activity in District WASH Plan:

a) Software Action Plan

It is revealed that the awareness level on WASH is very low at school, community and line department official level. level. The key findings are as follows:

1) Inadequate awareness among students, teachers and WASH committee members on WASH components
2) Lack of proper planning in school on WASH related activities
3) Inadequate awareness on personal hygiene among students (hand wash, chapal wearing, nail cutting etc.)
4) Adolescent girls are facing critical problems during their menstrual period due to lack of proper information and knowledge
5) Lack of emphasis on better wash practices among student, teacher and villagers
6) Insufficient information and knowledge among student, teacher and SMC on various government schemes and programs on WASH
7) Insufficient IEC materials available in school
8) Inactive student's health club/defunct students cabinet is schools
9) Absence of positive attitude of students, teachers and SMC in school towards WASH program
10) Lack of proper coordination among SMC, teacher and govt. dept.
11) Absence of proper counseling mechanisms to address the personal hygiene and WASH related problems

As school has been taken as the key entry point for the successful implementation of Total Sanitation Campaign (TSC) and Nirmal Bharat Abhiyan (NBA), the behavioral change of the teachers and the students are very much essential for which a soft ware action plan is required. The various activities to be undertaken under software is as follows:

Table 3: Software Action Plan

Sl.	Activities	Focus (theme)	Target group	In charge (Agency)	Media	Time frame
1	Various competition among school students	Knowledge of sanitation and personal hygiene & cleanliness	Student and teacher	SI of schools	Essay writing, debate, drawing, quiz	3 months
2	Health camp in schools & issue of health card	Personal Hygiene	Students	Medical officer	Camp, health check up	12 months
3	School sanitation	Awareness creation / capacity development	Student /teacher/ PTA	NGO	Experience sharing workshop	3 months

4	Personal cleanliness	Behavioral change	students	PTA	Observation of weekly sanitation day	Throughout the session
5	Environmental cleanliness	Sanitation week	Teachers and Students	Block Water Sanitation Committee	*cleanliness of school premises * different competitions among students * cultural shows by students on TSC * Street play by students	On 26th Jan., 15th August, 2nd Oct.
6	Monthly PTA meeting	Monitoring	Students	PTA members	Meeting	Every month
7	Exposure Visit	Capacity building	Teachers	Block Water Sanitation Committee	Exposure visit to better performing district	One moth one batch basis
8	Sharing of Ideas	Experience sharing workshop	Teachers	Block Water Sanitation Committee	Meeting / workshop / field visit	3 months every year

For successful implementation of the Block WASH Plan capacity development of key stake holders is of paramount important. A proposed capacity development calendar has been formulated for effective implementation.

Table 4: Training Calendar

Sl	Key Stakeholders	Activity	Types of training	Resource person/ Institution	Time / duration
1	District / block level resource group	Capacity Building	Exposure visit and orientation	State/ district level institution	2 months
2	Teachers	Sanitation concept dissemination	Sensitization Workshop	District/ Block resource group consisting of experts from Govt.	3 months.
3	Teachers	Capacity Building	Exposure visit	To better performing block	3 months
4	Parent Teacher Association (PTA)	Sanitation concept dissemination	Sensitization workshop	District/ Block resource group consisting of experts from Govt. and Non-Governmental Organizations (NGO)	3 months
5	Parent Teacher Association (PTA)	Experience sharing	Workshop	District / Block resource group	1 month every year
6	Science Teachers	Water quality and disease related to water and sanitation	Orientation training	Experts of Block Water Sanitation Committee/ State /District level institutions	1 month

Children are more receptive to new ideas and schools are appropriate institutions for changing the behavior, mindset and habits of children from open defecation to the use of lavatory through motivation and education. The strategy is to promote hygienic practices among school children on use of safe water and toilets, hand washing, safe disposal of solid and liquid waste, use of foot ware etc. The following steps to be considered in this regard.

1) To ensure first period of each Monday is the period on "Water Sanitation & Hygiene"
2) Regular health check up
3) Issue of health Card to all the students
4) Checking of personal cleanliness like, nail cutting, combing of hair, wearing of clean dresses, use of foot ware etc. after prayer class every day
5) Ensuring hand washing in soap/ash/after using toilet, before training food through health monitors and hygiene teachers
6) Essay, debate, quiz, songs and drawing competition among children on monthly basis for hygiene education.
7) Cleaning of school premises by the students before prayer every day.
8) Padayatra, Pravat Pheri with slogans and placards, street, Play, Cleaning of village road by the students and teachers on National holidays like 26th January, 15th August, 5th September, 2nd October and 4th November every year.
9) Fortnightly monitoring of cleanliness of school toilets and school premises by the student and PTA members.
10) Exposure visit of teacher, Student and PTA members to schools having better facilities.
11) Supply of sanitation kits to each school like bucket, mug, brush, broom, waste paper basket, soap, nail cutter, mirror, comb etc

b) Hardware Action Plan

The findings on the status of the infrastructures at school level are very critical and needs immediate actions by the authorizes. If the facilities are not created in identified schools, the WASH situations will not improve for the students. Based on the findings the proposed hardware plan developed as mentioned in below table:

Table 5: Hardware based Action plan for the district

Hardware Components	No of Schools	No of unit required	Agency to construct	Monitoring Agency
Latrine (643 school toilets are broken Toilet)	2100	4200	District Water Sanitation Mission/Sarva Siksha Abhiyan	District WASH Committee
Urinal (643 school urinal are broken urinal)	2100	4200	District Water Sanitation Mission/Sarva Siksha Abhiyan	District/ Block WASH Committee

No Water supply provision including water quality	1281	1281	District Water Sanitation Mission/Sarva Siksha Abhiyan	District/ Block WASH Committee
Wash Basin(Hand washing)	1265	1265	District Water Sanitation Mission/Sarva Siksha Abhiyan	District/ Block WASH Committee
Garbage Pit	2667	2667	District Water Sanitation Mission/Sarva Siksha Abhiyan	District/ Block WASH Committee
Soak Pit	2962	2962	District Water Sanitation Mission/Sarva Siksha Abhiyan	District/ Block WASH Committee
Disable friendly Toilet	2774 Student in the district	Special provision	District Water Sanitation Mission/Sarva Siksha Abhiyan	District/ Block WASH Committee

7.6 Proposed Intervention (Software & Hardware Components) Modalities:

It is necessary to strategize to implement the proposed hardware and software activities to ensure the timely completion with quality. Most importantly, the involvement of all the key stakeholders in each step is required to make it happen. Some intervention modalities are highlighted in the below mentioned table:

- Sharing of micro plans (at block, district and state levels) with duty bearers for finalization of MoU on implementation plan and respective role as well as responsibility.
- Finalization of priority schools for special WASH interventions.
- Advocacy meetings at block, district and state levels for implementation of block level WASH action plan, MoU and technical guidance, resource mobilization and collaboration.
- Technical workshops on designed estimate, hygiene education package.
- Adaptation, preparation and printing of BCC materials in Hindi and local languages (Garhwali)
- WASH campaigns and IEC drives at school and community level.
- Observation of World water day, World toilet day, Global Hand Washing day, World environment day
- Use of folk media, puppetry, street plays, rallies, wall paintings, exhibitions and other IEC activities at school and community level with the aim to promote age appropriate hygiene promotion.
- Formation and orientation of WASH vigilance committee (Children, teachers, Village Education Committee (VEC) members, PTA/MTA members, PRI/CBO members and school officials).
- Training to school teachers (preferably one male and one female from each school) to take up hygiene education and promotion activities in respective schools.
- Formation / strengthening of student health clubs in schools.
- Identification and training on student club members (preferably one boy, one girl from each school) to take up peer education on hygiene and environmental sanitation issues in respective schools and villages.
- Strengthening of village/block level water and sanitation committees
- Finalization of procurement plan, hiring of executing agency through tendering, orientation to agency and masons on design and quality with timeline for completion.
- Construction & upgradation of Sanitary Block with adequate water & hand washing facility
- Solid & Liquid waste management in all schools
- Inter school exposure visits of child club members, teachers and community representatives (VEC/PTA/MTA) for experience sharing and learning.
- District level advocacy meeting with stakeholders including govt. officials, media persons, PRI and NGO leaders

7.7 School WASH Plan Monitoring and Review Process:

Monitoring should be an integral and ongoing activity for WASH in schools programme. Monitoring is more than mere collection of information to know the status and usage of facilities and behavioural practices. Monitoring is meant to improve programme for sustained benefits. Monitoring methodologies involve observation, checking, assessing, analyzing and acting upon to improve the situation from existing to expected level. Monitoring should be initiated at school level and information be collated at cluster and block levels to ultimately form part of the district, state and national level monitoring system. To develop a monitoring system for WASH in schools, a set of indicators that describe the minimum necessary inputs and outcomes for success of the programme needs to be defined. An indicator shows a standard that one wants to achieve.

Monitoring is usually, done on physical and financial parameters, but for WASH in schools, it is important that more comprehensive data, such as the number, quality, functionality, child-friendliness, usage and class room transactions are reviewed and analyzed. Monitoring of WASH in schools must be a regular and continuous process and teachers (WASH Champions) and children's hygiene clubs and SMCs should be involved at school level. Key information should be consolidated and shared with CRC /BRCs and district. Standardized formats should be used for monitoring.

8. Conclusion

Approximately 30% schools in 1342 schools and their teachers of Mayurbhanj district who will benefit from improved hygiene practices and access to better quality and better maintained WASH infrastructure. Besides, students and teachers of high priority schools shall receive additional advantage of direct infrastructure support through project funding. Village education committees, PTA/SMC, teachers, PRI members, school functionaries (DPC, CI, DI, SI, BRC and CRC) and block/district line department officials (district DWSM coordinators, RD and other Govt. agencies involved in implementation of NBA) and village

communities shall acquire higher knowledge and skills to promote improved WASH outcomes and advocate for resources. Girls will benefit strongly from construction of toilets in potential schools where there are currently no facilities for female students, encouraging girls' enrolment. Students with disabilities will benefit from new facilities built to DDWS standards for universal access. Benefits are highly targeted towards poor and vulnerable groups.

In nutshell, to know the true picture on the status of WASH in schools and its constraints and achievements, it is critical for government, departmental officers and partners to develop and institutionalize a robust monitoring system. Timely feedback can help in planning new interventions and taking decisions on investment, scaling up, manpower planning and also policy. Adequate and timely information on WASH in schools would also generate evidence for advocacy.

Attempt has been taken to build very effective and closure interface between the project, line departments, school authorities, children clubs, PRIs, CBOs and other donors working in the water and sanitation sector in Odisha. Appropriate technical design, plan estimates, preferably the ones standardized by government and being adopted under its programs shall be utilized to facilitate maximum possible convergence with government specifications. Through a combination of hardware, software interventions, the Project aims at both creation of facilities and their optimal utilization by the intended beneficiaries. The school intervention shall also be utilized as a platform to accelerate the campaign for total sanitation. Finally, there shall be many indirect results in the form of decrease in morbidity / mortality wage losses due to illness and debt trap to bear the cost of treatment. Hence, the results are expected to unfold a new course beginning with improved health and wellbeing of children and teachers in schools and ultimately that of participating communities.

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