National School Water, Sanitation and Hygiene (SWASH) Strategy and Implementation Action Plan



Federal Democratic Republic of Ethiopia
Ministry of Education



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Acronyms

ABE Alternate Basic Education

ARI Acute Respiratory Infection

CHAST Children Hygiene and Sanitation Training

CLTSH Community Led Total Sanitation and Hygiene

CWA Consolidated WASH Account

EMIS Education Management Information System

ESDP Education Sector Development Program

GTP Growth and Transformation Plan

HDA Health Development Army

HEP Health Extension Program

HEW Health Extension Workers

H&NS Health and Nutrition Strategy

HIV/AIDS Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome

IEC Information, Education and Communication

JMP Joint Monitoring Program

MHM Menstrual Hygiene Management

MoE Ministry of Education

MoFEC Ministry of Finance Economy Cooperation

MoH Ministry of Health

MoWIE Ministry of Water, Irrigation and Electricity

MoU Memorandum of Understanding

NGO Non-Governmental Organization

NTD Neglected Tropical Diseases

NHSAP National Hygiene and Sanitation Action Plan

NHSS National Hygiene and Sanitation Strategy

NHSSAP National Hygiene and Sanitation Strategic Action Plan

ODF Open Defecation Free

O&M Operation and Maintenance

OWNP One WASH National Program

PASDEP Plan for Accelerated and Sustainable Development to End Poverty

PHAST Transformation Hygiene and Sanitation Training

POM Program Operational Manual

PTSA Parents, Teachers and Student Associations

REB Regional Education Bureau

SBCC Social Behavior Change Communication

SDGs Sustainable Development Goals

SLTSH School Led Total Sanitation and Hygiene

SHN School Health and Nutrition

SIP School Improvement Program

SWOT Strength, Weakness, Opportunity and Threat

SWASH School Water, Sanitation and Hygiene

SWOT Strength, Weakness, Opportunities and Threats

ToT Training of Trainers

TVET Technical and Vocational Education Training

UAP Universal Action Plan

UN United Nation

VIP Ventilated Improved Pit (latrine)

WASH Water, Sanitation and Hygiene

WIF WASH Implementation Framework

WSP Water Safety Plan

WWT Woreda WASH Team

WHO World Health Organization

ZED Zonal Education Department

Acknowledgement

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Foreword

The Government of Ethiopia has placed considerable effort and investment to facilitate a sector wide approach program (SWAP) to deliver Water Sanitation and Hygiene (WASH) programs across all relevant sectors in general education and health in particular. WASH in Schools has been envisaged and incorporated as a crucial component within the One WASH National Program and in the Education Sector Development Programs.

Recently, the 5th Education Sector Development Plan was launched with the aim to reach universal access to WASH in Schools as per the GTP II. The Government is prepared to continue efforts to expand access to WASH in a bid to improve learning outcomes. Over the years, considerable progress has been made in expanding the WASH facilities by constructing schools and reduces the distance students are commuting.

Despite achievements made, access to WASH has not resulted in higher education attainments. A significant number of students drop out of school; such that only 47% of students complete grade eight. This alludes to the importance of WASH facilities to enhance students experience in schools and improve their learning environment. Access to WASH improves cognitive function and attention; reduces school absenteeism; extends time for learning; and enhances one's sense of dignity and safety.

The Ministry of Education is committed to increase access, ensure equity, improve quality, and management of school WASH services. These key areas are clearly articulated in the fifth education sector development program 2016-2020. Thus, so far, WASH in Schools has not been addressed with a specific national strategy, did not receive strong institutional support and approach for implementation. In light of this, the Ministry of Education has placed WASH as one of the 7 cross cutting issues in the Ethiopian Education Sector Development Plan V (ESDP V). One of the five components of the plan is a school improvement program which focuses on the quality of education.

At a global level, goal 4 and 6 of the Sustainable Development Goals (SDGs) presents a real opportunity for the education sector in Ethiopia to prioritize SWASH by strengthening relationships with cross sectoral stakeholders.

It is my belief that this strategy will serve as an effective document to guide and inform all future investments directed at enabling quality and equitable universal access to SWASH.

Tilaye Gete (PhD)
Minister of Education

Definition of terms

Attitude Positive mind set of individuals for hygiene behavior and practice

Awareness Understanding the implication and becoming conscious of

conditions and practices in relation to many things including

hygiene and health

Behavior Every day hygiene practices that follow norms and positive attitude

to hygiene and hygienic living

Child friendly A system or service that is easily operable and used by boys and

girls

Equitable With regards to SWASH it refers to services that satisfy gender,

disability, age and height of boys and girls

Inclusive SWASH service that is all encompassing and comprehensive

Improved sanitation A sanitation system that is connected to public sewer, septic tank

and a pour flush toilet/latrine. For a simple pit latrine, it implies the

use of slab and ventilated improved latrine

Implementers Selected woreda level sector staff trained by master trainers on

CLTSH, SLTSH and CHAST tools and facilitation techniques for

effective community mobilization program

Knowledge The second level of awareness, understanding and realization

Master trainers Selected professionals from federal, regional, zonal, teaching

institutions and other organizations trained on CLTSH, SLTSH,

CHAST facilitation techniques

Nutrition The process of providing or obtaining food that is necessary for

growth and health

Safe water A water system that is well protected from contamination sources,

treated with chemicals and used in ways that prevent

contamination

Sanitation Act of cleanliness and containment of waste products to make the

living and working environment free from matters that affect

health and wellbeing

Executive Summary

Achieving universal education is a core mandate to the Ministry of Education. It is highly committed and driven to improve the educational scene nationally through the provision of clean, safe, equitable, adequate and improved water, sanitation and hygiene facilities.

SWASH (School Water, Sanitation and Hygiene) serves as a strategic approach to promote health and wellbeing, improve learning environments and encourage equality and the full participation of both boys and girls in schools. Schools often serve as a breeding ground for intestinal parasites and other forms of contaminants that adversely affect the health of children and their performance in school. Studies showed that there is a strong correlation between WASH services and health conditions in schools. A comparative cross sectional study conducted for 369 school children and soil samples from school compound in Jimma revealed that the overall prevalence rate of soil transmitted helminthes infections in private and government schools was 20.9% and 53.5% respectively. Common WASH related health problems prevalent in schools include parasitic infections, malaria, trachoma and skin diseases.

Until recently, the SWASH program has had no governing national strategy or means for implementation. While WASH has been placed as one of the 7 cross cutting issues in the ESDP V, it has no specific targets, tailored budget lines or mention of any SWASH specific protocols, programs for operation and maintenance. It is therefore only natural to have a school WASH strategy as logical and necessary first step to improve the unsanitary conditions that most schools find themselves in.

Designing the strategy for SWASH involves undergoing a needs assessment to understand the nature of problem and; conducting a desk review of existing documents, policies and guidelines to identify what has been done and suggest ways to address gaps. In line with standard procedures, the SWASH strategy will entail setting a vision, mission, goal and value statements. The strategy will be aligned with, and focused on areas that will support the School Improvement Program (SIP) - a key component of the ESDP V.

The strategic focus areas therefore include:

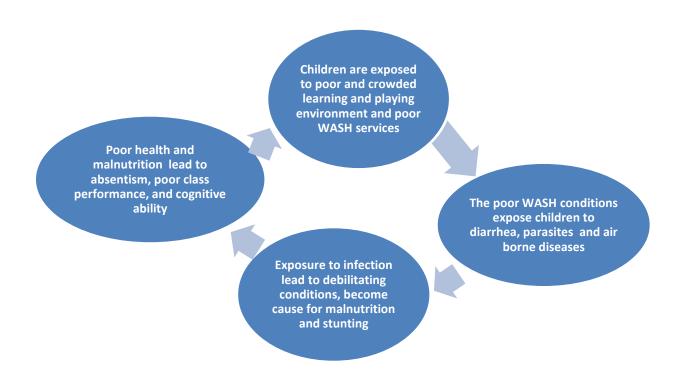
- I. The development and or provision of dependable, inclusive and safe and sustainable water supply
- II. The development of clean, gender separated, ensure privacy, adequate and improved latrine and urinal facilities
- III. The development of a life-skill hygiene education program
- IV. The development of clean, safe, well ventilated and adequate natural light class rooms and play grounds emphasizing on:

- Classroom cleanliness
- Class room ventilation
- Class rooms with adequate natural light
- Clean and safe play ground
- Beautifying and creating public images
- Solid and liquid waste Management including hazardous wastes from laboratories
- V. The development of guidelines, tool kits and appropriate technology options
- VI. Capacity building of SWASH for students, teachers and PTSA
- VII. Create School WASH forums/networks at all levels
- VIII. Addressing cross cutting Issues to create equity and inclusiveness to the student body
- IX. Enhancing collaborated and integrated activities with all stakeholders and partners in SWASH

1. Background

Increasingly WASH in Schools is gaining momentum amongst key players both nationally and globally. There has been an increase in funds, development of school-based resources, and implementation designs for schools all over the world. In addition, a 'Call to Action for WASH in Schools' launched in April 2010.¹

SWASH in Ethiopia has been a focus in recent years. The country has been involved with awareness building and sensitizing key stakeholders on the health risks associated with lack of access to WASH. The 2012 national WASH inventory shed light on the meager levels of access to improved water supply in schools (62% of schools in Ethiopia lack access to water). This same report has indicated that a large majority of schools have traditional pit latrines which do not meet the minimum latrine standard. Moreover, according to the 2014/15 education statistics annual abstract, the ratio of students to toilets is on average a higher than national standards. Teachers and students who are unable to wash their hands, or access clean and safe toilet facilities are exposed to health risks (see Figure 1). Schools pose as a breeding ground for the spread of disease where often times feces is piled on floors. Children spend a large majority of their day in cramped spaces with limited ventilation with access to unsanitary facilities.



¹A "Call to Action for WASH in Schools" was launched at the Dubai International Humanitarian Aid Conference, April 5, 2010, by CARE, Dubai Cares, UNICEF, World Health Organization (WHO), Save the Children, and other key partners. http://www.unicef.org/wash/index 53232.html

Figure 1: Cause-effect relationship of poor WASH and environmental conditions to adverse health and mental development in children

SWASH will serve as a strategic approach to provide equitable and inclusive, safe drinking water, improved sanitation facilities and hygiene promotion encouraging the development and wellbeing of students. SWASH will help to advance children's right to health, education and unleash their full potential. Presently, schools lack the financial capability, know-how and human power to challenge the status quo and improve WASH conditions in schools. Schools expect to receive support from the Government and development partners to fulfill this need.

As of 2012, stakeholders have been giving due attention to WASH and the challenges schools face. The Ministry of Education has taken on the responsibility to lead WASH related efforts in schools and develop WASH in schools in accordance to the Memorandum of Understanding that was signed among key line ministries (MoWIE, MoH, MoE, and MoFEC). While there is clear buy in and commitment from line ministries and multilateral, international and bilateral organizations; a well-coordinated and clear action plan is yet to be realized. Given the time sensitivity of WASH and its severe consequences if left unaddressed; it is the onus of the Ministry of Education to seek for more coordinated action from its partners to strengthen WASH services and implement behavior change programs in schools.

Woredas will naturally play a vital role in implementing the SWASH. Woreda WASH teams (WWTs), together with woreda political leaders, development partners, parents, and educators can roll out the SWASH strategy. Including students, teachers and community members in these efforts and enhancing their capacity to serve as change agents will go a long way in ensuring that child and WASH friendly environments are created that would allow children to be more healthy and attentive learners.

The National School WASH Strategy is predicated on five pillars; these include water, sanitation, hygiene, life skill training and capacity building. These pillars constitute key priority areas for the promotion of health and wellbeing in schools. The focus of the school WASH strategy is to respond to the existing problems and design an implementation guideline that would systematically lead to achieve an appreciable level of:

- Clean, adequate and sustainable safe water
- Clean and cleanable latrine facilities which is accessible for all age groups regardless of gender and disability
- Development of training guides and tools for life-skill development and creating a conducive learning, recreational and communicative school environment
- Establishment of a robust monitoring, operation and maintenance, learning and knowledge exchange mechanism

1.1. Rationale

The overarching objective of SWASH is to ensure that all children are healthy and have access to clean and safe water, proper sanitation facilities, ventilation systems and a conducive learning environment that would ensure their maximum performance in schools. Thus, the availability and proper use of WASH facilities, in particular the management of human faeces and solid and liquid waste including hazardous wastes can help prevent disease.

Children who avoid environmental sanitation problems such as soil transmitted parasites; diarrhea and WASH related diseases have an increased chance of being well nourished and healthy. Levels of school absenteeism would decrease and students learning potential can be maximized.

1.2. Purpose

The main purpose of this strategy is:

- a. To establish a system that would automatically organize all stakeholders at all levels to undertake a strategic action in creating child and WASH friendly schools
- b. To motivate and assure SWASH partners that any investments made will be used efficiently and effectively
- c. To identify and address the primary target audience of politicians, government officials, and administrators to increase substantive awareness of improved WASH in schools
- d. To sensitize the public on the importance and benefits of SWASH
- e. To involve the national and regional media outlets as essential partners in SWASH and enhance the dissemination of useful information that would support community mobilization
- f. Support the school community to realize and internalize the importance of SWASH; build their capacity through training to pass on the responsibility for them to be part of the SWASH implementation
- g. To identify and reach school water supply, sanitation and hygiene targets
- h. To advocate for the need of including WASH related subjects in the school curriculum to foster rapid behavior change
- i. To help partners to make necessary intervention in strengthening WASH program in schools
- j. To use the strategic document as resource and tool in creating awareness to the target audiences

1.3. Scope

The school WASH strategy is cognizant to the role of a diverse set of actors. It will advocate for a well-coordinated and holistic approach that will ensure that quality WASH services in schools is delivered in a sustainable manner for all, regardless of age and gender.

2. Mapping the Context of WASH in Schools

Schools with poor WASH facilities signal a sense of gloom within their communities. Schools all around the world tend to lack safe drinking water, clean toilets/urinals, unsanitary or at times non-existing hand washing facilities. Schools in Ethiopia are no different, accommodating students with poor hygiene habits and practices.

A study conducted by the Federal Ministry of Health in partnership with UNICEF revealed that 76% of schools in Ethiopia have latrines; 77% of toilets are traditional pits; 93% are functional of which only 35.5% are considered clean at the time of the visit. This same study further reported that only 4.4% of toilets had access to hand washing facilities; 14% of schools have adequate water source of which 83.7% where functional at the time of the survey (MoH and UNICEF, 2013)

Common WASH related health conditions include parasitic infections, malaria, trachoma and skin diseases which are easily acquired in schools. A comparative cross sectional study conducted in 369 school children and soil samples from school compounds in Jimma showed that the overall prevalence rate of soil transmitted helminthes infections in private and government schools was 20.9% and 53.5% respectively. T. trichiura was the most common soil transmitted helminthes in both schools while hookworm infection was identified in government school students only (See Annex II for detailed studies).

Helminthic and other infections exposing children to malnutrition is well documented. Children infected with worms are 3.7 times more likely to be underweight and are typically anemic and less physically fit². Malnutrition is a major public health concern affecting a significant number of school children; influencing their health, growth, development, and academic performance. A background paper for the design of a National Health and Nutrition Strategy conducted in 2008 indicated that 25% of school-age children in Ethiopia are stunted and similarly 25% exhibit wasting (MoE, 2008)³. According to the 2012 Fogera study, the prevalence of malnutrition is high among school children aged six to fourteen years old. From a total of 790 school children who were subjected to questionnaire surveys, anthropometric measurement, observation and laboratory methods found that the overall prevalence of stunting, underweight and wasting was 30.7%, 59.7% and 37.2% respectively. The study concluded that family size, infection and latrine availability were significantly associated with malnutrition⁴.

² IRC (2007), Technical paper series 48, International water and sanitation center, Delft, the Netherlands

³MoE (2008), Health and nutrition in schools. Project paper, unpublished

⁴(Hunegnaw M, Takele T., and Tefra Kisis (2012), Malnutrition and its correlates among rural primary school children of Fogera distrfict, North West Ethiopia. Journal of Nutritional disorders and Therapy

All the above evidence alludes to the importance of providing safe and adequate water supply, improved sanitation facilities and safe hygiene practices in schools. Schools without adequate water, excreta disposal and hygiene services create high-risk environments for children and staff, and increase the risk of attracting environmental health hazards. Inadequate sanitation and hygiene affects children's ability to learn in several ways. These include helminthes infections and diarrheal diseases, all of which force many school children to be absent from school.⁵

2.1. Enabling Environments and Existing Situation

Enabling conditions are pertinent for the successful implementation of the SWASH program. Research documents and key informant discussions with sector actors has revealed the lack of a clear-cut SWASH policy, and in response the Ministry of Education has demonstrated its intention to improve the school conditions in the nation. As such, the Ministry has established School Improvement Program Directorate to provide institutional support and in addition an MOU has been signed between sector ministries and the OWNP.

Proper implementation of SWASH activities further calls for the availability of a program management unit that is equipped with full time project staffs from the government side. Presently, institutional support for SWASH is only provided at the federal and regional levels, via project staffs that have been recruited to manage only CWA projects. WASH specialists/ project staffs at the woreda and zonal level are non-existent. This means that WASH in Schools does not fall within a specific department or section with project staff present at all government levels. In addition to the government effort and commitment, there are national and international non-governmental organizations who are working on School WASH across the regions and at grass root level. As there is no as such strong implementation of school WASH program in harmonized and aligned system, there is capacity gap at zonal and woreda level, because actors such as school teachers, Health Extension Workers and other sector staffs need to be trained on SLTSH, and CHAST etc to be able lead an effective behavior change program at schools.

Schools are not using available WASH program promotion methodologies such as CHAST, SLTSH or other methods unless external actors visit the school and provide these services. School curriculums also pose another challenge. Whilst hygiene and sanitation and other related diseases are included in the curriculum under environmental sciences, there are no well-designed life skill training tools available to instill a lasting behavior change for school children.

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⁵National SHN Strategy. (NHN Strategy, 2012)

2.2. Demand for School WASH

The ideal place to teach students life skills and WASH behaviors are schools. Schools teach students how to cope with the demands and challenges life throws their way. Over the years, the numbers of schools have increased substantially (See Figure 1). According to the MoE educational statistics annual abstract, there was 3.5 % increase in schools between 2014 and 2015; and an 11.7% increase between 2015 and 2013. Primary schools grew from 30,495 during 2013 to 33,373 in 2015 (a 9.4% increase over the last three years), whereas secondary schools grew from 1,912 in 2013 to 2,830 in 2015 (a 48% increase over the last three years).

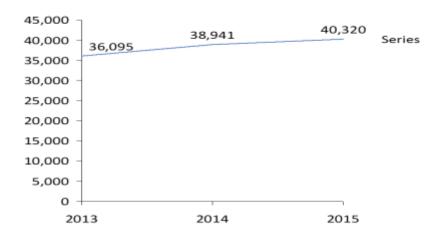


Figure 2. Trend of expansion of schools 2013-2015

School communities constitute significant percentage of the Ethiopia's population. In the year 2013, 21.3 out of 33.8 million school age population were enrolled in schools (Aboma, et al., 2015:11); and as reported in the 2014/15 education statistics annual abstract, this figure has grown to 23.8 million. Similarly the number of teachers in all schools has reached 497,737 creating high demand for WASH in Schools (See Figure 3).

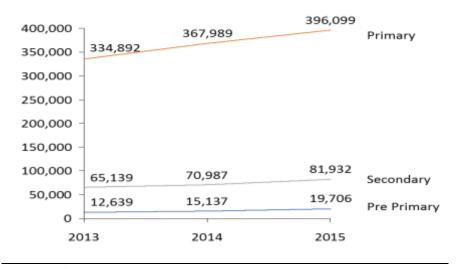


Figure 3. Trend in number of teachers

Both teachers and students spend much of their time in schools, thus raising the demand to access WASH facilities to ensure continued health and wellbeing. Schools are densely populated which can serve to speed up the transmission of communicable diseases associated with poor WASH facilities. In schools where there are no menstrual hygiene management friendly latrine facilities, girls are greatly affected both in terms of their physical hygiene and ability to attend and perform in school. Therefore, due to a myriad of factors it is crucial that children in school's access WASH facilities as this will also enable the provision and scalability of the national school meal program.

2.3. Supply Side: A Status Overview on School WASH Service

WASH in Schools involves far comprehensive features than mere construction of facilities. In addition to making available child friendly designs, an effective WASH in Schools program requires adequate planning, management, training, capacity building and coordination among stakeholders. WASH in Schools requires a strong focus on operation, use and maintenance of WASH facilities in the school while also reaching out to the communities and homes. It is also crucial to make SWASH resilient to the impact of climate change and environmental degradation and make it free from contamination source. This can be achieved through appropriate site selection, technology selection, design, construction and protection of the source from climate and environmental risk and contamination.

2.3.1. The availability of WASH at Primary Schools

The 2015/16 MoE education statistics annual abstract report developed by the Ministry of Education indicates the following:

Availability of water

- Nearly 38.4% of primary schools have water supply; with low availability reported from Tigray, Ethiopia Somalia, Afar, Amhara, Oromia and SNNP regions
- 80.4% of schools reported that their main sources of drinking water were from improved/protected sources; whereas the remaining 19.6% was from unimproved/unprotected sources
- Roughly 69%, 19.7% and 13.4% of primary schools reported that water is available in within the school premises for 5-7 days, 2-4 days and less than 2 days per week respectively
- 59.6% of the water facilities were accessible to children with physical disability and 68.5% of the water facilities were accessible to younger children
- 79.9% of school water facilities are functional whereas the remaining 20.1% of the facilities are non-functional necessitating a need for scrutiny and maintenance cost

Availability of hand washing facility

- 20.8% of the schools have hand washing facilities. Of this, 88.9% of them have functional and 11.1% of the schools remained to have non-functional facilities.
- 29% of the hand washing facilities were accompanied with soap or another substitute
- 49.2% of the hand washing facilities were accessible to children with different physical disabilities and 43.4% of the hand washing facilities were accessible to younger children

Availability of sanitation facility

- 86% of primary schools had latrine facilities. Out of this, 54.9% of them were traditional pit latrines that fail to meet the national standard; whereas 45.1% of the schools have access to improved latrines
- In relation to inclusiveness to WASH facilities, the report revealed that 35.9% of the school latrines were accessible to children irrespective of their physical disabilities and 53% of the school latrines were accessible to younger children

Existing latrine blocks in primary schools are not sufficient. According to the WHO⁶, the recommended student - toilet stance ratio is 25:1 for girls and 50:1 for boys (with urinals); whereas in accordance with the MoE, the standard student – latrine stance ratio is 75:1 for boys and 50:1 for girls. Furthermore, per the 2005 sanitation protocol (MoH), student-latrine ratio is 150:1 for boys and 100:1 for girls with physical separation for girls and boys⁷. The upcoming national WASH in Schools implementation guideline will harmonize all these standards so that the education sector will have one comprehensive standard for WASH in Schools. The upcoming National WASH in Schools guideline will shed more light on the standards that the country would like to set for WASH in Schools. This will help to implement the plans articulated in the fifth-round education sector development program.

2.3.2. The availability of WASH at Secondary Schools

The 2015/16 education statistics annual abstract report developed by the Ministry of Education indicates the following:

Availability of water

 62.6% of secondary schools have water supply facilities, with low availability reported from Ethiopia Somalia, Afar and SNNP regions

⁶ WHO, recommended standards of toilets for schools.

⁷Federal Ministry of Health, Sanitation protocol 2005.

- 90.3% of the water facilities were functional whereas the remaining 9.7% of the school
 water facilities were non-functional demanding simple maintenance
- For 95.2% of secondary schools their main source of drinking water were improved/protected sources; whereas the remaining 4.8% of the schools obtained water from unimproved/unprotected sources
- Roughly 58%, 18.6% and 9.8% of secondary schools reported that water is available within the school premises for 5-7 days, 2-4 days and less than 2 days per week respectively
- 77.4% of the water facilities were available to students with physical disability

Availability of hand washing facility

- 40% of the schools have hand washing facilities. Of this, 84% of them were functional
 and the remaining 16% were non-functional
- 17.5% of the hand washing facilities were accompanied with soap or a substitute
- 17.5% of the hand washing facilities was accessible to children with different physical disabilities

Availability of sanitation facility

- 87.4% of the schools have latrine facilities, for which 37.9% of them were traditional pit latrines that fail to meet the national standard
- Only 62.1% of the schools have improved latrines
- Latrine stance to student ratio for secondary students at a national level is estimated as 1 stance to 109 students. There is a discrepancy across the regions in this matter, with 1 stance to 53 students in Addis Ababa and 1 stance to 533 students in the Afar region. Taking into consideration the standard set by WHO and MoH; the stance student ratio at secondary school level is by far better in comparison to the stance to student ratio for primary schools

2.4. SWOT Analysis

The core strength, weaknesses, opportunities and threats for SWASH are identified below (See table 1). This SWOT analysis is used to guide the development of the strategy and strategic action and implementation plan.

Table 1: SWOT analysis for SWASH

Strength	Weakness			
 MoE is a well-organized institution MoE has well defined educational policy, curricula etc Well qualified teachers and supervisors up to school level MoE has a well-defined supervisory arrangements MoE has a strong national Education Management Information system (EMIS) MoE has established school improvement program directorate Federal MoE has deployed qualified WASH project specialists 	 Available teachers are not well trained on WASH The EMIS did not adequately include WASH indicators until recently. WASH in its totality is not adequately reflected in the school curriculum WASH assessment/inspection identification of challenges is not explicitly indicated as part of the supervisory activities The institutional arrangement is more developed at higher level than at the lower level where WASH implemented. Lack of governmental structure for WASH at all levels 			
Opportunities	Threat			
 Capitalizing on the organization at all levels, educational system, Availability of Supportive international and bilateral organizations An educational policy Health and nutrition policy Supportive health mother and child policy of MoH Availability of local human power, pedagogical skills of teachers material resources, skill and knowledge Availability of school improvement program guideline Availability of POM for OWNP 	 Lack of understanding by teaching and administrative staff at all level that WASH is essential for child development Lack of adequate funds for construction, operation and maintenance of WASH services. Investment for sustained and efficient WASH services in all schools at all level. 			

2.5. Stakeholders Analysis

Stakeholders comprised of Government actors, developmental partners, religious actors, the private sector and communities have the potential to provide, advocate and participate for WASH in Schools (See table 2)

Table 2: Stakeholder analysis and their contribution to SWASH

Stakeholders	Stakeholders contribution for SWASH
WASH implementing sectors at all levels (Including federal, region, zonal, woreda and kebele administration / Woreda and Kebele cabinets)	 Ministry of education, health, water, finance and ministry of agriculture and natural resources from federal to the grass root level could include SWASH focused programs along with their main WASH related activities. Advocate at all public events to mobilize people and government support in favor of SWASH Include WASH in Schools curricula and teacher training (including in-service) programs so that SWASH will have more focus at the school level Promote life skills-based approaches to behavior change in schools and in communities Advocate for separate toilets for girls and boys and MHM in
Teachers/students	 School teachers should lead and support the hygiene and sanitation behavior change process Manage the sustainability and functionality of water supply system Advocate for inclusion of needs of students / teachers with disabilities Take active part in involving school children in promoting improved sanitation in their households and surrounding communities Enhance and support the construction of improved latrines and support efforts for ODF achievement in their communities Create a positive public image by transforming the school environment
Media	 Media outlets can focus on schools and school WASH problems, challenges success stories or exemplary achievements. Interviews held with parents, teachers and students can serve as SWASH promoting programs
Private sector	 Business people constituting parents and community members could support the school program through participating in SWASH improvement or intervention program. They could contribute to the installation of safe water and child-friendly sanitation facilities and hand washing stands with soap Provision of quality and affordable sanitary /menstrual pads

Micro and small enterprise development agencies, micro finances at federal, regional and woreda levels, Private sectors (TVETs, WASH related material producers)	 Schools can serve as potential WASH business opportunities especially for sanitation marketing WASH in schools requires concrete, ceramic, plastic products and water treatment chemicals and filters; items that can be provided by businesses Participate in demand creation for sanitation and water quality improvement through behavior change and other interventions
Faith based/religious organizations	 Religious leaders who are highly respected and trusted can use their religious sermons to advocate for children's welfare using the scriptures and their moral authority to preach and guide on the benefits of clean water, sanitation and hygiene Guide their followers to support school WASH program by organizing the communities towards achieving a clean and healthy school environment
Community level organizations such as Idir/ development partners	 Participate and mobilize communities belonging to their association to support SWASH programs Collaborate with other community action groups to stimulate action in improving school WASH programs
NGOs	 NGOs especially those who have WASH programs in a community can play a vital role in including and prioritizing School WASH programs NGOS can advocate on the importance of SWASH and support communities in their endeavor to improve conditions in schools NGOS can use children to be part of their program and act as change agents for WASH programs in communities
PTSAs	PTSA members can contribute money, their time, skill to change conditions of WASH in schools and especially help with the management WASH facilities for long-term sustainability
Teachers/ school directors/supervisors/ administrator staff	 Teachers can serve as role models to school children so that children will learn to use the latrine, wash their hands properly after visiting latrines, stop abusing water taps or water wastages, and maintain school WASH facilities including pipes, pumps, latrine doors, walls and roof, diversion ditch etc.

2. 6. SWASH Strategic Framework and Focus

This SWASH strategy is designed to equip WASH in Schools programmers with tools to plan and execute effective and efficient WASH services and life skill programs; and the creation of a conducive and comfortable teaching and learning environment in schools (See Figure 4).

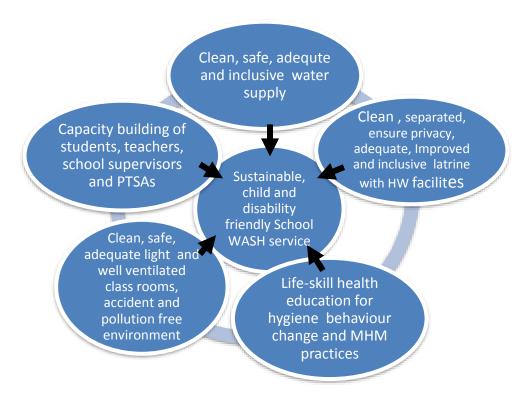


Figure 4: Strategic Framework

2.6.1 SWASH Strategic Focus

The development and provision of adequate, safe and inclusive water supply

Schools obtain their water from various sources. These include: piped water, public standpipe, borehole, hand dug wells, protected springs, and rain water harvested from school roofs and stored in appropriately designed water storage. Worst case scenario and there is no supply of water, water tankers can be used and equitable water utilization system among boy and girl students and men and women teachers should be in place in case of distributing water from water tankers. In some cases, students bring water from their homes that they can use in schools. Further to improving access to water supply, schools require operational and maintenance support. This includes regular water quality testing and periodical treatment to ensure safe, sustainable and uninterrupted service in schools.

The development of clean, child friendly, inclusive, gender specific, adequate and improved latrine, hand washing and urinal facilities

Different options will be assessed to align with the geo-hydrological conditions of the specific schools. The criteria for technology selection will be safety, ease of maintenance, durability, clean-ability and appropriateness. The design should consider gender, children's height and students with disability. Sustainable waste evacuation methods such as vacuum truck

arrangement at the zonal level and recycling mechanisms, (using alternate pits) and introducing the use of urine for subsurface irrigation system in the garden will be incorporated. Manual desludging of the pits in rural areas is not practical. Therefore "alternate" systems are to be used in rural areas. Once the pit is full the superstructure is to be moved to a new place.

The development of a life-skill hygiene education program

Having water and proper sanitation facilities alone is not sufficient to bring the intended behavioral changes among the school communities Therefore, the SWASH program will also emphasize on appropriate hygiene behavior by all school community members' to maintain health and wellbeing in schools and the surrounding communities. Life skill training on hygiene and sanitation behavior change for students can be provided using the available training manuals and guidelines. Teachers can use these tools not only to train students but parents as well.

The development of clean, safe, adequate light, well ventilated class rooms and play grounds includes the introduction of:

- Classroom cleanliness regardless of the flooring material type. The floor should not necessarily be constructed with cement or ceramics for ease of cleaning. Appropriate techniques will be introduced to keep the class room clean at all times regardless of the number of the students.
- Class room ventilation and light is very important especially in crowded conditions. Many communicable diseases such as the common cold, influenza, TB, polio, scabies and mumps can be easily transmitted through contacts, droplets and airborne routes. Class room lighting is very essential for school students to make the smooth teaching and learning process and keep the health and well being of students.
- Clean and safe play ground to avoid cuts, falls, burns, etc in the play and recreational ground. This will require the cleaning and removal of broken bottles, slippery items, solid waste, exposed electrical wires, stones, open wells, ditches or ponds.
- Beautifying and creating public images to make schools attractive and set an example for environments can be maintained. This can be done through the engagement of students and teachers on extracurricular activities such as vegetable gardening (a competition exercise among classes) and planting of permanent type flowers, fruit trees and shrubs.
- Solid and liquid waste management includes proper sweeping of classroom sweeping materials (paper, chalks, broken dusters etc), weeds, waste grass, waste water from drinking fountains and hand washing stations. In addition, scouting for open defecators in the school compound, near school latrines or outside the school compound is part of this program.

Capacity building on SWASH

Students, teachers and the PTSA is an important focus area to promote proper hygiene and sanitation in schools. Unless teachers and students are adequately informed and properly trained, they cannot serve as change agents for their communities.

The capacity building program for teachers, supervisors and community members will include aspects of community mobilization methods such as CLTSH, SLTSH, PHAST, CHAST, appropriate methods of latrine construction and hand washing facilities, water safety measures and food protection which would equip teachers to lead the WASH program within and outside the school communities.

Addressing cross cutting issues

This will include:

- Schools will provide WASH services considering the need of children (boys and girls with disability) and teachers with respect to easy access and operability, etc.
- Arrangement for separate latrines, urinals and hand washing facilities for boys and girls located at opposite directions in different blocks, ensuring safety and privacy
- Proper sanitary arrangement for solid and liquid wastes, in addition to waste generated from locations such as hand washing, drinking fountain, MHM facilities, incinerators, classrooms and including hazardous wastes from laboratories and infectious wastes from school health centers
- Arranging for MHM facilities for adolescent girls with complete washing facilities including soap, cloth lines, sanitary disposal and a room for resting
- Arrangement of first aid station with basic provisions such as alcohol, cotton, gauze, plaster and ointments for scabies.

Enhancing collaborated and integrated activities

Children are part of a larger community and require a system of collaborative action. The following would need to be encouraged:

- NGOs working in this sector could include SWASH in their programs
- Schools support community development program through mobilizing students and their families to support the program.
- Schools collaborate with health institutions to promote effective prevention to youth / school age children on health problems caused by alcoholism, drug addiction, and others depending on the localities and in some cases treatment of diseases such as HIV/AIDS, sexually transmitted diseases, trachoma, scabies and family planning.
- Schools enhance the collaborative action of civic organizations on aspects of school improvement, resource mobilization and actions

Schools should collaborate with agriculture and natural resource institution, and environmental protection authorities to make the SWASH facilities resilient to the impact of climate change and environmental degradation. And also schools collaborate with water sector institutions on aspects of appropriate site selection, technology selection, design, construction and operation of school water schemes.

Organizing SWASH learning and knowledge exchange platforms

The overall objectives of establishing a SWASH learning and knowledge exchange platform are:

- To bring the SWASH problem and challenges into focus by creating School WASH forum at all levels
- To stimulate new and innovative ideas with respect to student development as means to look into the future
- Existing forums like the annual WASH Multi-Stakeholders Forum can also be used for SWASH learning and knowledge exchange platforms
- To strengthen and be part of the national WASH coordination structure
- To stimulate system wide preparedness and technical capacity for SWASH intervention
- To learn and exchange information on development trends on school WASH, curriculum applicability and challenges

A platform that promotes School WASH coordination, learning and exchange of ideas is an ideal advocacy mechanism. It ensures that local conditions are considered in engaging in program planning, strategizing, implementation and monitoring. It will also harmonize working relationships, sharpen the tools used and serve as learning and sharing hub.

The SWASH platform organized at national, regional and woreda levels will also serve as an extension and supporter of the National WASH coordination structure.

Therefore, the SWASH coordination platform will have the following responsibilities:

- Provide a platform that would ensure that the priorities and designs of the SWASH strategy are applied
- Use agreed standards, guidelines, manuals and tools to the extent possible and if necessary modify or improve tools or design better and contextual guidelines
- Design appropriate and effective messages, print and distribute to stimulate behavior change communication efforts
- Prepare the school community to be part of emergency planning in the unfortunate case of a disaster
- Serve as learning and sharing of information platform; highlighting needs, identifying gaps and developing plans to fill gaps.

SWASH in Emergencies

There are different emergencies that countries may experience at an unpredictable time. Emergencies may lead to mass migration among other things, disrupting the health and

educational systems of its locality. Emergency situations require the construction of shelter, clinics, and teaching facilities, supply of clean and safe water, proper human excreta disposal, solid waste disposal, and hygiene services.

According to a review made on emergencies the number of children affected by emergency situations in Ethiopia from 2010-2014 averaged 250,000 annually (ESDP V). Emergency interventions include the provision of safe water supply, sanitation and hygiene (WASH). These services are the highest priority. In addition, the MoE has worked closely with donors to foster education during emergency situations.

> Water

According to the WHO, a minimum of at least 15 liters of safe water for drinking, personal hygiene and washing of clothes is needed per student per day. Water supply in emergencies may be accessed from pipes, tankers, or drilled boreholes. In cases where water sources arise from unprotected sources, they would need to be treated prior to consumption.

For all practical purposes treatment at the point of use is more effective. This is done by treating water stored in jerry cans or larger ROTO tanks in school. In such cases, even surface water which is fairly clean or clear can be treated to make the water safe for drinking. Chemical disinfection such as chlorine tablets, aqua tabs, *water guard* solution prepared with different strength can similarly be used for this purpose.

> Excreta disposal

According to the WHO, in emergency situations- a latrine hole should be dug for every 50 students and within 50-meter distance from the camp. Students with disability and the privacy and safety of girls must be taken into consideration during this design. Separate trench latrines for male and female students can be dug. The dug-out earth should be used to cover the excreta after defecation to discourage fly propagation. The above interventions are a short term solution that should be used only during emergency situations.

➤ Hand washing

Hand washing using water saving devices (tippy tap) and soap should be placed near the latrine. The waste water from hand washing should be disposed in soak pit. (WHO, field manual, WEDC, Loughborough University, UK.)

3. National SWASH Program Strategy

Based on the enabling environment, existing WASH services, reports and documents reviewed, the following organizational directions are proposed.

3.1. Vision and Mission

The Federal Ministry of Education has a well-defined vision and mission for school development in Ethiopia (See Figure 3). It is also understood that specific programs may have their own vision and missions to follow.

> Vision

To see that all schools are clean, safe and child friendly with the ability to nurture positive images and support the MoE vision more broadly i.e "to ensure all school age boys and girls access quality primary education that can contribute to their development and productivity".

> Mission

Ensure equitable, sustainable and adequate WASH services at a convenient location for all school children, including those with special needs. This will help produce healthy and intelligent citizens who properly respect and enforce others to respect their rights; citizens who can solve problems and actively participate in development and building a brighter future.



Figure 5: Core Values for SWASH

3.2. Guiding Principles in the Implementation of SWASH Strategy

The action to be carried out for SWASH will follow the following principles:

- I. Political commitment: Engage political leaders from the federal, regional, zonal, woreda and local levels, including influential people such as religious leaders, community leaders, women groups and youth during a multi stakeholder planning process. This will ensure buy in from key stakeholders and generate political will.
- **II. Partnership and networking:** establish strong link with all government and non-governmental and private WASH actors
- **III. Harmonization and alignment:** school WASH should be considered as part of the overall school development program. It should be harmonized with plans, align with policies and strategies and integrated with developmental plans.
- IV. Integration of SWASH with other development programs such as Climate Resilient Water Safety Plan (WSP); urban and small town hygiene and sanitation program; national nutrition program; Neglected Tropical Disease (NTD), climate change etc
- V. The SWASH strategy will use existing resources such as CLTSH, SLTSH and MHM guideline, ODF verification protocol, sanitation marketing guideline, water and sanitation construction manuals and procedures. Additional guidelines, manuals, technology options and other communication tools are designed to expedite changes at schools and communities. Hence, the school will be in the position to support community level CLTSH and SLTSH processing and community mobilization, ODF verification, nutrition and water quality improvement. This indicates that other agencies operating in the locality can support the school WASH program and viseversa.

3.3. Goal:

The ultimate Goal of this strategy is ensure equitable, sustainable and adequate WASH services at convenient location suitable for all school children including those with special needs.

3.4. Strategic objectives:

The strategic objectives are designed inconsideration of global and national targets. The strategic objectives are listed below.

Strategic objective 1: By 2020, achieve the provision of safe and adequate improved school water supply for all

Strategic Target:

1. Increase proportion of primary schools using drinking water from improved water sources available at the school from the baseline 38.4% to 80%

- 2. Increase proportion of secondary schools using drinking water from improved water sources available at the school from the baseline 63% to 100%
- 3. Increase proportion of schools that conduct bacteriological water quality test from the baseline to 50%
- 4. Decrease proportion of non functionality rate of water supply system in primary schools from the baseline 19% to 5%
- 5. Decrease proportion of non functionality rate of water supply system in secondary schools from the baseline 10% to 0%

Strategic objective 2: By 2020, achieve access to adequate and equitable improved school sanitation for all which are safe, child, disability and gender sensitive

Strategic Target

- 1. Increase proportion of primary schools with access to improved latrines from 38.6% to 80%.
- 2. Increase proportion of secondary schools with access to improved latrines from 54.3% to 100%
- 3. Increase proportion of open defecation free schools from the baseline 18% to 82%
- 4. Increase proportion of schools with proper waste management service (solid and hazardous, etc) from the baseline to 80%
- 5. Increase proportion of schools with proper liquid waste management service from the baseline to 80%
- 6. Increase proportion of schools latrines emptied and properly disposed from the baseline to 50%.

Strategic objective 3: By 2020, achieve access to hygiene services and promote basic hygiene behavior/practice.

Strategic Target

- 1. Increase proportion of schools with hand washing facilities with soap and water available from the baseline 20.8% to 80%
- 2. Increase proportion of schools with menstrual hygiene management facilities with soap and water from the baseline to 100%
- 3. Increase proportion of students practicing hand washing with soap/substitute at all critical times from the baseline to 85%.
- 4. Increase the proportion of adolescent students practicing proper menstrual hygiene management from the baseline to 100%.

Strategic Objective 4: By 2020, create enabling environment for school WASH program

Strategic Target

- 1. Establish school WASH structure from federal to school level.
- 2. Develop school WASH implementation guidelines, design and construction and training manuals
- 3. Human resource development and capacity building
- 4. Strengthen monitoring and evaluation, learning and research.

4. SCHOOL WATER. SANITATION AND HYGIENE STRATEGIC ACTION PLAN

4.1. Introduction

The national SWASH situational analysis report exposes the need to design a practical strategy that would help coordinate and harmonize stakeholder's efforts to provide and promote SWASH services. Schools represent the fundamental entity to produce leaders and build nations. In Ethiopia, access to WASH is limited, and School WASH Strategy is a step in the direct direction.

To this end, efforts to expand access to WASH starts with a series of services and programs that must be established and reflected amongst school children and their wider community. These include:

- a) Water, sanitation and hygiene provision in schools
- b) Hygiene promotion in schools
- c) Capacity development at all levels (federal, regions, zones, woredas, kebeles, schools, teachers, PTSA, cluster supervisor, health extension workers, guards, directors)
- d) Resource mobilization
- e) Creating an enabling environment
- f) School policies
- g) Ensure community participation and ownership through linking schools and community
- h) Ensure the incorporation of WASH facilities in new school design and construction monitoring, evaluation, learning, exchange knowledge and experience

4.2. SWASH Action Planning Component

The SWASH action plan component will help create access to sustainable SWASH services, strengthen partnership and coordination, create implementation capacity building, enhance financial and material resources, monitor programs and facilitate experiential learning (See

Fig.6)



Figure 6: SWASH Action Planning Components

4.3. Institutional Development

Establish School WASH case teams or units at federal/regional levels, education bureaus, city administrations, zonal and woreda/town levels with appropriate professional composition and supported with earmarked resources.

Core tasks include:

- 1. Development of appropriate structure from federal to woreda/town level
- 2. Assign appropriate structure at kebeles, clusters and schools
- 3. Allocate essential resources for functioning of the structures

4.4. Implementation of Capacity Building

Based on the capacity gaps identified in SWASH assessments, the capacities of schools are to be enhanced to enable them to plan, implement, monitor, evaluate and report on SWASH programs. The capacity building element will focus on improving attitude, knowledge, practice and building skills through tailored trainings. These trainings will involve the following:

- Training of master trainers at federal, regional and higher institutions
- Training of trainers (ToT) at zone, woreda/town and clusters
- Utilize the ToTs for teachers, students, Alternate Basic Education (ABE) facilitators, guards, health extension workers and parents

4.5. Access to Basic SWASH Services

Creating the enabling environment for basic access to equitable water, sanitation and hygiene services to schools so that students use the services and develop good hygiene behavior at an early age to guarantee lifelong behavior change and hygienic practices. Core tasks assumed include:

- 1. To develop simple, applicable and affordable technology options manual for WASH facilities
- 2. To prepare a guideline for proper implementation of the school WASH activities at grass root level
- 3. Establish a system to ensure school WASH sustainability (O&M training, supply chain for O&M, climate resilience-water safety plan and resource mobilization and allocation)
- 4. Mobilize the boys and girls student and teachers to support changes in their respective communities
- 5. Multi-level advocacy for federal, regional and local authorities will be targeted to promote Hygiene and Sanitation Improvement, understand the role they can play in achieving the national strategic goals

4.6. Curriculums for life skill based health education

Although the educational curriculum includes environmental training which also includes sanitation; it is not a standalone training package. The objective is therefore to incorporate and strengthen the existing syllabus to be more elaborated with a scope of life skill development and community outreach. Core tasks include:

- 1. To assess the existing curriculums to see if SWASH is adequately addressed
- 2. To revise the existing curriculum to adequately incorporate SWASH
- 3. To train teachers and teach students as part and parcel of the subject matters

4.7. Partnership, coordination and networking

SWASH is a multi-dimensional and multi sectoral undertaking. Activities for SWASH would need to be aligned and integrated with the efforts of NGOs and other implementing partners. Core tasks include:

- 1. To develop appropriate coordination mechanism that would motivate all actors to work together for one common end-SWASH.
- To establish School WASH forum with relevant non- governmental organizations and other school WASH actors
- 3. To map organizational, human and material resources available to strengthen SWASH at all levels

- 4. To organize an advocacy meeting and reach consensus to enhance and mobilize coordination among sectors, NGOS and other partners
- 5. To ensure the incorporation of school WASH plan and budgeting within the school development plan
- 6. To ensure vertical and horizontal coordination through joint planning, implementation, monitoring and reporting

4.8. Finance and other resources

All strategies developed including the SWASH strategy are very much dependent on financial resources and other forms of support such as trained trainers for implementation. School WASH financing is more of a capital investment than a recurrent expense, where it primarily would need to obtain from the Government and/or donor organizations and later by the school community. Schools may also be able to generate their own income through events and resource mobilization efforts. Core tasks include:

- 1. To assess the SWASH life cycle cost and determine the required cost per student
- 2. To allocate the required budget for school WASH from the public treasury
- 3. To map non-governmental organizations and donors that provide financial and technical support for school WASH program
- 4. To identify additional specific financial sources for implementation of school WASH interventions
- 5. To identify the required human and material resources

4.9. Monitoring, evaluation, learning and sharing

Ministry of Education has an EMIS which is a robust national monitoring system. It is commendable that they have enhanced the tool with SWASH indicators. However, more work needs to be done to strengthen the reporting and feedback mechanism, monitoring result for quarterly review, planning and learning. Core tasks include:

- 1. To ensure the cascading of customized SWASH indicators with EMIS to schools
- 2. To develop self-monitoring and supportive supervision checklist with clear schedules
- 3. To train human resources on school WASH monitoring and reporting
- 4. To conduct quarterly, bi-annual and annual review meetings
- 5. To prepare simple learning notes or WASH periodicals every year to reflect on innovative ideas used, events organized, resource generated, community involvements for school development as a means to expand learning and sharing among schools
- 6. Establish /strengthen school WASH learning and sharing platforms at all levels

Table 3: School WASH Strategic objectives and Action Plan Implementation Period

gic tive	Target	Major activities	Indicators	Implementation Period					
Strategic Objective				2016/17 (%)	2017/18 (%)	2018/19 (%)	2019/20 (%)	2020/21 (%)	
provision of safe and adequate improved	Increase proportion of primary schools using drinking water from improved water sources available at the school from the baseline 38.4% to 80% Increase proportion of secondary schools using drinking water from improved water sources available at the school from the baseline 63% to	 Sorting by region, woreda and locality and categorizing schools according to need Prioritizing per feasibility Estimating and allocating budget Signing contract Supervising 	% of primary schools with access to improved water source % of secondary schools with access to improved water source	63	70	80	90	100	
By 2020, achieve the ol water supply for all	Increase proportion of schools that conduct bacteriological water quality test from the baseline to 50%	 Coordinating and aligning the water testing with MoH Preparing estimated budget for the test Conduct the necessary action based on the result 	% of schools conducted bacteriological water quality test	0	5	15	30	50	
SO1.	Decrease proportion of non functionality rate of	Sorting by region, woreda and locality of	% of non-functional water supply facilities in primary	19	17	14	10	5	

	water supply system in primary schools from the baseline 19% to 5% Decrease proportion of non functionality rate of water supply system in secondary schools from the baseline 10% to 0%	nonfunctional and repairable water systems Estimating and allocating budget Signing contract Supervising	schools % of non-functional water supply facilities in secondary schools	9.7	7	5	2	0
equitable I, disability	Increase proportion of primary schools with access to improved latrines from 38.6% to 80%	 Sorting by region, woreda and locality and categorizing schools according to need 	% of primary schools with access to improved latrine	38.6	49	60	70	80
achieve access to adequate and equitable sanitation for all which are safe, child, disability tive	Increase proportion of secondary schools with access to improved latrines from 54.3% to 100%.	 Prioritizing per feasibility Estimating and allocating budget Signing contract Supervising 	% of secondary schools with access to improved latrine	54.3	64	74	87	100
access to on for all wh	Increase proportion of open defecation free schools from the baseline 18% to 82%	 Develop SLTSH manual and create awareness Scale-up and sustain ODF schools 	% of open defection free schools	18	34	50	66	82
SO2. By 2020, achieve improved school sanitatio and gender sensitive	Increase proportion of schools with proper waste management service (solid and hazardous, etc) from the baseline to 80%	 Crate a waste segregation and storage system to separate the organic, inorganic and hazardous waste Organize students to burn compost and dispose waste safely in school compound 	% of schools with proper waste management (% of schools with functional barrel incinerators and composting plant)					75

	Increase proportion of schools with proper liquid waste management service from the baseline to 80%	 Grey water waste from bathing (MHM generated liquid waste), hand washing and urine waste is safely disposed under soil in school compound Transform existing grey and urine waste problem to the new method 	% of schools with proper liquid waste management (% of schools that safely disposed grey water and urine waste)					75
	Increase proportion of schools latrines emptied and properly disposed from the baseline to 50%.	 Assess and identify latrines that needs to be empting Create public awareness on empting and managing latrines Work with relevant stakeholders/sectors on the matter 	% of schools latrines emptied and properly disposed					50
0, achieve access services and basic hygiene	Increase proportion of schools access with hand washing facilities with soap and water available from the baseline 20.8% to 80%	 Facilitate Installation of hand washing facilities with soap around latrines 	% of schools access to hand washing facilities with soap and water	20.8	35	50	65	80
SO3. By 2020, to hygiene promote ba	Increase proportion of schools with menstrual hygiene management facilities with soap and water from the baseline to	 Construction of MHM friendly facilities 	% of schools with menstrual hygiene management facilities					100

	100%					
	Increase proportion of students practicing hand washing with soap/substitute at all critical times from the baseline to 85%.	 Awareness creation on benefits and utilization of hand washing facilities Facilitate Installation of hand washing facilities with soap around latrines 	% of students practicing hand washing with soap/substitute at critical moments			85
	Increase the proportion of adolescent students practicing proper menstrual hygiene management from the baseline to 100%.	 Facilitate construction of MHM facilities with soap around latrines Avail sanitary pads at schools Awareness creation on menstrual hygiene 	% of adolescent students practiced proper menstrual hygiene			100
e enabling lool WASH	Establish school WASH structure from federal to school level.	 Establish School WASH case team/unit from federal to Woreda Draft the necessary human capacity needed for the structure 			X	
SO4: By 2020, create enabling environment for school WASH program	Develop school WASH implementation guidelines, design and construction and training manuals	 Develop SWASH guideline, design and construction and training manuals Print and distribute guideline and manuals 	Number of distributed copies of strategy, guideline and manuals	8,500		

Human res developme building	ent and capacity	Identifying trainees, invitation and scheduling Preparing training	Number of Master trained on SWASH stra guideline		50			
	-	materials, logistics and budget Arrange venue	Number of imple trained on SWASH	ementers		22,500 0	22,500 0	
	n monitoring and , learning and	Establish school WASH forum at all level Create platform for			X	X	X	X
		knowledge sharing, learning and reporting Undertake different operational studies						

Table 4: Indicative Cost estimation for the Strategic Action Plan

		Five-	Budget required	Yearly task distribution				
Cost Description	Unit	year Plan	(Birr)	2016/17	2017/18	2018/19	2019/20	2020/21
Print and distribute school WASH guideline and strategy	No. of copies	2,500	250,000		2,500			
Print and distribute manuals, technology options etc to regions, zones and woredas	No. of copies	6,000	600,000			6,000		
Master trainers training (per diem, transport, refreshment)	No. of trainees	50	325,500		50			
Training of woreda level implementers (per diem, transport, refreshment)	No. of trainees	45,000	122,500,000			22,500	22,500	
Construct safe water in 80% of primary schools and 100% of secondary schools	No. of water systems	18,411	2,192,400,00 @152,200.00 / water system (OWNP estimate)** 152,200@18,411= 2,802,154,000		4,103	4,657	4,658	4,993
Rehabilitate 95% and 100% of nonfunctioning water systems in primary and secondary schools	No. of rehabilitated water systems	10,260	76,734,000 @20,000.00/water system rehabilitated (OWNP estimate) ** 20,000@10,260= 205,200,000		2,565	2,565	2,565	2,565
Conduct bacteriological water quality test to 50% of water schemes every year	No. of tested water schemes	14,500	2,175,000 @30 birr/test/5 times ** Br.3,500.00/water point/one test, 14,500@3500 = 50,750,000		3,625	3,625	3,625	3,625
Construction of new and Rehabilitation of existing latrines with safe, adequate, male/female separated, with urinals, MHM and hand washing facilities	No. of latrines	10,236	1,809,600,000@250,000/latrine block complete (OWNP-CWA estimate) ** 199,250@17,772= 2,559,000,000		2,558	2,558	2,560	2,560
Upgrading/rehabilitation of existing unimproved latrines to improved age, gender inclusive latrine	No. of latrines	9,976	50,000*9,976 = 598, 560,000		2494	2494	2494	2494
Total Budget required			5,740,779,500.00					
10% inflation			574, 077, 950.00					
Grand Total Budget Required			6,314,857,450.00					

Note:

- No. of woredas in Ethiopia, WASH sector ministries and WASH actors used for the estimation...... 1000
- No. of zones in Ethiopia used for the estimation 71
- No of school used for the estimation....... 36,203 primary and secondary schools.
- ** Ref. OWNP project appraisal document
- Trainees considered for master trainers and implementers are: SWASH focal persons at all level, universities, NGOs. school directors, woreda supervisors, environmental health professionals, parents, HEW
- Master trainers training is calculated at the rate of 50 participants for participants from federal level and regional levels and for 50 participants for each woreda.

4.10. Resources

Financial Requirement: Funding need for school WASH program is essentially for hardware and software activities. The major cost however is the hardware or construction cost. The cost centers for the hardware projects include:

A. Capital Investment

- The construction of safe, equitable and adequate water supply systems
- The construction an equitable, adequate, child and disability friendly improved latrine systems for male and female students and teachers
- Construction of an equitable, adequate, child and disability friendly urinals for male and female students and teachers
- Construction of a safe, adequate, disability friendly and comfortable MHM units

B. Recurrent Cost

- Organize an operation and maintenance units at woreda level
- Printing of teaching and mobilization IEC products

Sources of Fund: The principal sources of budget for schools include:

- Government allocation, partner's contribution in the consolidated WASH account
- Partner organizations who supports the program but who are not directly contributing to the consolidated WASH fund (CWA)
- School generated income
- Community contribution

Table 3: Funding sources

Funding Source	Amount (million dollars)	Purpose
Government	80,000,000	Water supply construction
		Water supply maintenance and rehabilitation
		Improved latrine construction
		Urinal construction
		MHM facilities construction
		Hand washing facilities construction
		Water quality monitoring

National WASH	847, 550,610	Water supply construction
program indicative		Water supply maintenance and rehabilitation
budget allocation for		Improved latrine construction
regional hygiene/school		Urinal construction
facilities (2014-2018)**		MHM facilities construction
		Hand washing facilities construction
	11,415,542	Water quality monitoring
Local NGOs,	?????	Water supply construction
international NGOs, bi-		Water supply maintenance and rehabilitation
lateral and multi-lateral		Improved latrine construction
organizations and other		Urinal construction
WASH actors.		MHM facilities construction
		Hand washing facilities construction
		Water quality monitoring

^{**} Ministry of Finance and Economic Development consolidated national WASH program 2014 action plan.

Annex I: Important WASH policies, documents and major milestones

Name	Acronym	Year	Description
Memorandum of Understanding	MOU	2006 and 2012	Signed between MoH, MoWE, MoFED and MoE to improve inter-ministerial cooperation with respect to WASH
Menstrual Hygiene Management Guideline	МНМ	2017	Focused on community and institutional menstrual hygiene management
Plan for Accelerated and Sustained Development to End Poverty in Ethiopia	PASDEP	2005	National plan for guiding all development activities for 5 years
Universal Access Plan	UAP	2005	National plan for water supply and sanitation services. Sets out 100% coverage for water and sanitation by 2012. Revised down to <100% by 2015. Currently undergoing 2 nd revision
National Hygiene and Sanitation Strategy	NHSS	2005	Developed to complement the water sector strategy. Built around 3 pillars: enabling environment; promotion and mobilization; improved access to supplies and services
Growth and Transformation Plan	GTP II	2015/16	Builds on the PASDEP. Goals will lead to launch of a National WASH program
National WASH Implementation Framework	W IF	2011	Provides guidelines for implementing National WASH program
School Health and Nutrition Strategy	SHN	2012	Focus is on school health nutrition for school children
National Hygiene and Sanitation Strategic Action Plan	NHSSAP	2011	5-year action plan that focuses onrural and urban, domestic and institutional "on site sanitation", hand washing and safe drinking water handling in the home

Annex II: Research Conducted in Schools

Research Title	Result	Reference
Soil transmitted helminths and	Out of 319 study subjects, 263 (82.4%) are	© Alemu et al;
schistosomamansoni infections	infected with Ascarislumbricoides (22%)	licensee BioMed
among school children in zarima	followed by Hookworms (19%) and	Central Ltd. 2011
town, northwest Ethiopia	Trichuristrichiura (2.5%).	51461 6 11
	Schistosomamansoni 37.9% of the study	BMC Infectious
		diseases open,
		inclusive and
		trusted2011 11 :189
Prevalence of intestinal parasitic	Out of 304 study subjects, 104 (34.2%)	Gelaw et al.; licensee
infections and risk factors among	were infected with. The predominant	BioMed Central
schoolchildren at the University of	intestinal parasite was Hymenolepis nana,	Ltd. 2013BMC Public
Gondar Community School,	followed by Entamoebahistolytica/dispar	Health, BMC series
Northwest Ethiopia: a cross-sectional	and Ascarislumbricoides with 42 (13.8%),	open, inclusive and
study	28 (9.2%), 18 (5.9%), respectively	trusted2013 13 :304©
Prevalence and determinant factors	The overall prevalence	Desyessa et al (2014)
	of intestinal parasites was 27.7%, with	American Journal of
of intestinal parasites among school children in Arba Minch town,	predominant parasite being	Health Research. Vol.
Southern Ethiopia	was <i>E.histolytica/dispar</i> 64(12.9%) followed	2, No. 5, 2014, pp.
30dthern Ethiopia	by <i>A.lumboricoids</i> 53(10.6%), <i>H.nana</i> 21	247-254.
	(4.2%) and <i>G.lamblia</i> 21 (4.2%).	247-234.
Malnutrition and intestinal parasitic	The prevalence of underweight, stunting,	Worku N , et al
infections in school children of	wasting and intestinal parasitoses was	Ethiopian Medical
Gondar, North West Ethiopia	34.8%, 27%, 50% and 55.6%, respectively.	Journal[2009, 47(1):9-
Contain, Noter West Earnopia	Parasites identified are	16]
	Ascarislumbricoides (17.8%),	,
	Trichuiris <u>trichiura</u> (3.4%), hookworm	
	(4.3%), The prevalence of multiple	
	parasitoses was 10.9%	
Malnutrition and its correlation	Out of the 790 school-age students the	Hunegnaw M, et al
among rural primary school children	overall prevalence of stunting,	(2013)
of Fogera District, Northwest	underweight and thinness were 243	(2013)
Ethiopia	(30.7%), 96 (59.7%) and 294 (37.2%).	Journal of Nutritional
	Those children who were found to be	Disorders &Therapy
	both stunted and underweight were only	
	1.01% (8)., latrine availability were	
	significantly associated with malnutrition	
Research Title	Result	Reference
Knowledge, Attitudes, and Practices	The overall prevalence of intestinal	Alyssa Vivas,
(KAP) of Hygiene among School	parasitosis was high (81.0%). Soil-	<u>BizuGelaye</u> , _{et al} , Prev

	1	T
Children in Angolela, Ethiopia	transmitted helminths (STHs) infections	Med Hyg. 2010 Jun;
	(63.0%) were more prevalent than	51(2): 73–79.
	protozoa infections (23.5%). The	
	predominant parasites were	
	A.lumbricoides (60.5%),	
	E.histolytica/dispar (16.25%), Giardia	
	lamblia (11.7%) and T.trichuria (9.7%). The	
	presence of Intestinal Parasitic Infections	
	(IPIs) have statistically significant	
	association with the educational status of	
	the household heads, absence of washing	
	facility, home cleanness condition and	
	type of latrine used with (p < 0.05	
Soil transmitted helminths and	The overall prevalence rate of soil	Serkadis D. et al
associated factors among school	transmitted helminth infections in private	(2013), Ethiop J Health
children in government and private	and government schools was 20.9% and	Sci. 2013 Nov; 23(3):
primary school in Jimma town,	53.5% respectively. Soil contamination	237–244.
southwest ethiopia	rate of the school compounds was 11.25%	
	with predominant parasites of A.	
	lumbricoides	

Annex III: Roles & Responsibilities of Government & Partner Organizations for SWASH

All governmental, international and bilateral organizations have the responsibility to support the SWASH program, and in doing so foster a nation that develops a new generation of intellectuals with appropriate behavior and attitude. To this end, all educational sectors and stakeholders are expected to play a leadership role in coordinating the program, identifying partners coordinating all efforts.

Role and Responsibilities of Ministry of Education (MoE)

- Create awareness, enhance knowledge and create the enabling environment for the advancement of School WASH program
- Utilize principles of the National SWASH strategy to develop any materials such as print/electronic, tools, strategies and IEC needed to support the action plans
- Ensure the proper utilization of the strategy by all stake holders who are engaged in school WASH interventions programs
- Support Regional Education Bureaus and other sector offices to establish a viable SWASH platform, adopt the strategy and avail the necessary resources (human, material, financial)
- Establish and follow a robust SWASH monitoring and evaluation system both the hard ware and software activities of SWASH in collaboration with key stakeholders
- Provide special support for emerging regions to implement the strategy in the context of pastoralist and agro-pastoralists that is suitable and friendly to the culture and environmental

Role and Responsibilities of Regional Education Bureaus

- Create awareness on how to utilize the strategy in collaboration with regional partners using available communication strategies
- Employ the strategy to develop any materials such as print/electronic, tools, strategies,
 IEC, job aids, etc that is useful for the advancement of SWASH
- Ensure proper utilization of the strategies by all stakeholders who have engaged in SWASH program in their respective regions
- Support zonal/woreda education department/ offices and other sector offices who work in the school program to adopt/adapt the strategy in availing resources including human power and financial support

Role and Responsibilities of Zonal/ Woreda Education Department/ Offices

- Organize SWASH platforms at local levels to familiarize the SWASH strategy with partners such as health, water, agriculture, women's and youth offices programmers
- Collaborate with local partners to develop culturally-relevant SWASH interventions

- Stimulate coordinated efforts and guide utilization of the SWASH strategy by stakeholders such as Woreda Health Offices, PHCU and other sector offices to adopt and adapt the strategy and avail resources
- Collaborate with all WASH actors to make the program more successful both in achieving the intended targets effectively and efficiently

Role and Responsibility of School institutes/communities

a. Schools

- Ensure the school curriculum fully adheres to and encompasses SWASH principles and services
- Establish SWASH clubs and support their activities with materials and other resources
- Ensure students organize and support community actions
- Initiate and involve local NGOS, other sectors and community members on SWASH program development and school improvement actions

b. PTSA and Community Members

- Elected PTSA members support school development and improvement initiatives
- Elected PTSA act as a bridge between the school and the communities so that communities become part of the school program and provide the necessary support

Role and Responsibilities of Primary Health Care Units

All actors in primary health care units, such as health centers, Health Extension Posts (with HEWs) and Health Development Army (HDA) and kebele health committees would use the SWASH strategy to conduct sanitation and hygiene transformation not only in schools but also use the school to stimulate and process sustainable behavior change in the communities. Their role would involve:

- Make use of the strategy to follow and develop culturally-relevant promotional materials
- Provide support in understanding and implementing the strategy
- Ensure that the strategy links and guides HEWs in their day to day sanitation and hygiene promotion efforts
- Work with schools to bring about sustainable changes in the schools and communities

Role and Responsibilities of Partners

In this context, partners refer to UN agencies, civil society organizations including faith based and community based organizations and NGOs. The key roles and responsibilities of partners include:

- Support MoE and its structural offices at all levels to implement the strategy to the optimal level
- Adopt the strategy to develop promotional materials including tools, learning aids etc.
- Provide support to MoE in familiarization, dissemination and implementation of the strategy
- Collaborate with MoE in evaluating the effectiveness of the strategy

Role and Responsibilities of Media Outlets

Media outlet includes both print and electronic media outlets that work on health education and communication. Key responsibilities of media outlets include:

- Employ innovative strategies and develop appropriate locally acceptable communication materials and utilize few minutes of their airtime for the benefits of school WASH transformation, behavior and attitude change
- Support MoE and REBs in creating awareness for the public and amplify community health concerns identified through community dialogue forums and other communication strategies like advocacy, social and/or community mobilization
- Prepare programs and create competition among schools by exposing negative or positive profiles of schools and their behavior, attitudinal and public imaging status.

Roles and responsibilities of Sector Ministerial Offices

Sector offices refers to line offices including Ministry of Health at all levels and health institutions at all levels, Ministry of Agriculture and Natural Resource at all levels, Ministry of Water, Irrigation and Electricity, Ministry of Information and Communication and others in their respective sector networks that can contribute to the improvement of SWASH

The Sector Ministerial Offices' key roles and responsibilities include:

- Mainstream school health promotion in addressing factors and mitigate health risks and effects
- Employ the strategy to develop promotionalmaterials at their respective end
- Support implementation process of the strategy at all levels
- Implement measures to ensure safe and healthy learning environment

Annex IV: Enabling environments considered essential for SWASH development

Enabling Environments	Federal Level	Regional and Woreda Level
Policy, directives, guidelines	 There is a specific policy designed to create school improvement where a new directorate has been newly established to carry the task The ministry also has divided the schools into four levels so that intervention and standards will be designed based on these levels All sector plans like ESDP 5 are now designed to include SWASH as a cross cutting issue in the education sector The MoE will have only one plan for the nations and all sector partners will be expected to follow only this plan There is no lack of commitment. The proof is the school improvement program where WASH is included 	 Although there are sector policies belonging to all WASH signatories none have explicitly addressed WASH in schools The School Health and Nutrition Strategy which is recently developed by MoE indicated WASH as its component, but with limited details The Fourth Education Sector Development Program acknowledges the problems of WASH but not on 'how' to alleviate the problem The most important document for WASH in Ethiopia is the OWNP (2013) with its WIF and POM There is no guideline or strategy for School WASH except MoE's expression in various documents of educational quality and school improvement to create a conducive learning and teaching environment Other than the inclusion of hygiene in environmental science for elementary school there is no mention of drinking water safety measures, sanitation and hygiene in the curriculum
Institutional Arrangement	 A new directorate who would overlook school improvement including SWASH program is established at the federal level At the federal level, there are SWASH focal persons who are responsible for WASH There are WASH Program 	 There are WASH focal persons in regional educational bureaus and woreda offices but not in zones except zonal education supervisors Other sector bureaus such as health and water have good arrangement for SWASH at local levels There is PMU members at the regional level located under planning EMIS and resource mobilization process owner WASH specialists, engineers and CFTs

	Management Units organized at federal and	are employed in regions to support OWNP-CWA Targeted woredas
	regional levels located	Strin Strin Largettea Worldas
	under Planning and	
	Resource Mobilization	
	Directorate in the MoE	
Budget for WASH	 Out of the 80-billion-birr annual budget, the Government has already allocated 80% of the needed budget to support all schools in the country. The gap is 20% and the ministry intends to get it from partners. There is no budget problem but when budget is sent down to the woredas the woredas may use it for their other priorities Effective utilization and using the allocated budget for the planned activities is 	 There is no SWASH funding plan as such. WASH in Schools is dependent on external financing Woredas covered under OWNP have plans for SWASH. Government is also allocating a matching fund CWA targeting woredas There is no public budget line allocated for WASH in Schools
	a concern	
Implementation Capacity	 The federal level SWASH staffs are professionals in the field 	 Low level of awareness and knowledge of school staff on the importance of SWASH
	Their involvement in	 Teachers, school WASH focal persons
	designing SWASH program	or head masters are not trained in
	and participating in	SWASH
	workshops is also	Refresher training is not offered to
	considered a capacity building opportunity	teachers in all regions on regular basis except in those regions who are
	building opportunity	supported by NGOs. There is no
		standard training manual designed nor
		a guide to initiate a behavior change
		program to teachers, students and
		school communities
Program	 MoE recognizes the 	 No specific SWASH methodology as
Methodology	availability of The National	such but use of national WASH
	WASH Implementation	program methodology is observed
	Guidelines developed by MoH as a useful resource	 different organizations use different program methodologies in
	for SWASH as it has	programming WASH in Schools; and
	TOT SVVASIT as It Itas	programming was in in schools, and

	included institutional WASH promotion methodologies	NGOs follow their own program methodology The National CLTSH guideline which has also emphasis on schools is not readily used by sectors
Available products and tools	■ There is a national sanitation marketing guideline developed by MoH and partners which could be instrumental for private sector involvement in school WASH program in the future	 Consultations reveal that there is no WASH in School products and its outlets to consumers both in urban and rural areas Some regions reported that there is sanitary pad outlets to urban and rural schools Private sector involvement such as the establishment of sanitation marketing with all its marketing principles is still at its infancy In Tigray, private sectors are engaged in the production of local sanitary pads with no sufficient market linkages Some regions demonstrated some progress to develop private sectors for sanitation marketing through training and introducing the business to few micro and small scale enterprises
WASH Curriculum	 School WASH Education is included under integrated science and biology subjects. Students in elementary schools are taught about hygiene and hygiene related diseases and parasite There are WASH clubs, mini-medias that can be used to promote proper sanitation and hygiene practices in schools 	 Regions and woredas mentioned that hygiene is included in environmental studies There is no comprehensive tool for promotion of WASH in schools Tools such as SLTSH or CLTSH are not universally used to promote sanitation and hygiene and MHM practices in schools The poor sanitary conditions in schools are attributed by the lack of a comprehensive and universal guideline for the establishment school WASH clubs
SWASH Monitoring and Evaluation	 MoE has a robust data base with adequate indicators on SWASH at the federal level since 2013/14 	 Some Regions disclosed that they have no M&E mechanisms with adequate number of indicators for SWASH