Water, Sanitation and Hygiene (WASH) In Schools

Guidelines for Timor-Leste





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Preface

The development of water, sanitation and hygiene (WASH) in schools guidelines for Timor-Leste is a landmark moment in our quest to make every school child-friendly – a place where every child can learn, play and grow with pride and dignity. The guidelines have been developed following a long process of intensive consultation with a wide range of stakeholders. The overarching goal is to improve health, boost education achievement and promote gender equity in our schools.

The guidelines set clear levels of acceptable standards for water supply, provision of sanitation facilities and hygiene promotion in schools and provide a common framework and policy direction for all sub-sector actors. Therefore, all implementing agencies, managers, planners, architects, water and sanitation technicians, teaching staff, school directors, school boards, district WASH committees, local authorities and other relevant bodies should consult these guidelines, when making implementation plans.

On behalf of the Ministry of Education and the Government of Timor-Leste, I would like to thank all people and organisations who dedicated time, money and thoughts to making these guidelines a reality. In particular, I express gratitude to UNICEF, Timor-Leste Country Office, for providing financial and technical resources. It is now upon each of us to turn these guidelines into reality for the benefit our children and the future of the nation.

Signature

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Acronyms

CHAST	Child Hygiene and Sanitation Training
CSO	Community Services Officer
CtC	Child to Child
EMIS	Education Management Information System
EIC	Education, Information and Communication
IFU	Infrastructure and Facility Unit
KAP	Knowledge, Attitude and Practices
MoAS	Ministry of State Administration
MoE	Ministry of Education
MoH	Ministry of Health
MoPW	Ministry of Public Works
NTU	Nephelometric Turbidity Units
NGO	Non-Governmental Organization
O & M	Operation and Maintenance
PTA	Parent-Teacher Association
TWG	Technical Working Group
VIP	Ventilation Improved Pit
WASH	Water, Sanitation and Hygiene
WinS	WASH in Schools
WHO	World Health Organisation

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1 Introduction

1.1 What is WASH in schools?

WASH in Schools' is concerned with water supply, provision of sanitation and washing facilities along with hygiene education and promotion in schools. A school with adequate WASH services has a functional and reliable water system that provides safe, sufficient water for all needs of the school, especially for toilet use, hand-washing and drinking. It has a sufficient number of toilets for students and teachers and the toilets are private, safe, accessible, clean and separate for boys and girls. In addition, the school has several hand-washing stations, some located close to toilets to facilitate hand-washing after defecation, and others close to where food is prepared and eaten to facilitate hand-washing before handling food and before eating. Adequate WASH in schools service caters for the needs of the entire school population, including small children, girls of menstruation age, children with disabilities and staff. Further, it includes hygiene education in the school curriculum to impart basic knowledge. Finally, a complete WASH in schools package includes supplementary activities that aid translation of knowledge into lifelong practices, promote responsible use of facilities and pass on sound behaviours to families and communities. The overriding principle is that WASH in schools must be sustainable.

Box 1: Key concerns of WASH in schools

Key concerns of WASH in schools

- 1. Functional and reliable source of safe and sufficient water
- 2. Sufficient and gender segregated toilets
- 3. Functional and strategically located hand-washing stations
- **4.** Facilities that cater for the entire school, including students with disabilities and special needs of menstruating girls
- 5. Inclusion of hygiene education in the school curriculum
- 6. Provision of supplementary activities on hygiene promotion

1.2 Value of WASH in school

There is strong international consensus, backed by scientific evidence, that provision of WASH in schools has major impacts on health status, education achievement and reduction of disparities among students. Investments made in this sub-sector therefore result in tangible economic and social gains. The gains can be grouped into 5 main categories:

1. Disease	WASH in schools is primarily a means of preventing spread of
Prevention	diseases and promoting health. The objectives of WASH in schools
	are in line with Timor-Leste National Strategic Development Plan (2011-2030), which envisages a nation where all citizens will be "healthy and live long, productive lives."

	The World Health Organisation (WHO) estimated that 88% of diarrhoeal disease is caused by unsafe water supply, and inadequate sanitation and hygiene. Many schools in Timor-Leste serve communities that have a high prevalence of diseases related to inadequate water supply, sanitation and hygiene (particularly lack of hand-washing), and where child malnutrition and other underlying health problems are common. According to the Water Supply and Sanitation Collaborative Council, an effective WASH intervention can reduce the burden of diarrhoeal and other enteric diseases by between 30% and 50%.
2. Educational achievement	Poor WASH in schools affects children's ability to learn in several ways. Worm (helminth) infections, which affect some school-age children, impair children's physical development and reduce their cognitive development, through pain and discomfort, competition for nutrients, anaemia, and damage to tissues and organs. Diarrhoeal diseases, malaria and helminth infections force many schoolchildren to be absent from school. Poor environmental conditions in the classroom also make both teaching and learning difficult. The effect of disease in teachers – impairing performance and increasing absenteeism – also has a direct impact on learning, and teachers' work is made harder by the learning difficulties faced by schoolchildren. Dehydration caused by failure to drink sufficient amounts of water and increased physical activity, such as walking to school, reduces a child's ability to learn. Recent studies provide evidence that students drink more water, and therefore remain healthier, when access to water is readily available.
3. Gender and disability	Girls and boys, including those with disabilities, are affected in different ways by inadequate water, sanitation and hygiene conditions in schools and this contributes to unequal learning opportunities. For example, lack of adequate, separate private and secure toilets and washing facilities may discourage some parents from sending girls to school. In addition, a lack of adequate facilities for menstrual hygiene contributes to girls missing days at school and may even lead to girls dropping out of education altogether at puberty. A girl can miss 10% to 20% of her school days due to menses (Cooke, 2005). Many disabled children in Timor-lest are not sent to school for fear that they will not cope with the school environment, particularly the toilets. Provision of carefully designed WASH facilities gives a window of opportunity for such disadvantaged children so that they are not further marginalised. Additionally, toilets that are inaccessible often mean that a disabled child does not eat or drink all day to avoid needing the toilet, leading to health problems and eventually to their dropping out of school

	altogether.
<i>4. The wider community</i>	Children who have adequate water, sanitation and hygiene conditions at school are more able to integrate hygiene education into their daily lives, and are effective messengers and agents of change within their families and the wider community. Conversely, communities in which schoolchildren are exposed to disease risk because of inadequate water supply, sanitation and hygiene at school are themselves more at risk. Families bear the burden of their children's illness due to bad conditions at school.
5. Life-long skills	The hygiene behaviours that children learn at school – made possible through a combination of hygiene education and suitable water, sanitation and hygiene-enabling facilities – are skills that they are likely to maintain as adults and pass on to their own children. What children learn and practice today in schools will be a norm in the society when these children become adults.

Box 2: Why action must be taken on WASH in schools

Why action must be taken

- Provision of safe water, toilets and improvement of hygiene practices is the most effective known method of preventing diarrhoeal diseases
- Worm infection, diarrhoeas and dehydration significantly affect a child's ability to learn
- For lack of WASH facilities, a girl can miss 10% to 20% of her school days due to menses
 Many disabled children in Timor-Leste are not sent to school for fear that they will not cope with the school environment, particularly the toilets
- The best approach to changing a society for the better is to inculcate desirable values in its children, when they are still tender and most receptive

1.3 WASH challenges in Timorese schools

Almost all basic schools¹ (approximately 1,300) in Timor-Leste face various challenges regarding WASH service provision. Some schools are served with a complete WASH in schools package. Some have fair to poor levels of services, and yet others are completely marginalised with no service at all.

¹ A basic school includes grades 1 to 9

1. Low coverage	The 2012 EMIS data shows that only 38% of the schools had uninterrupted water supply throughout the year. The survey found that 30% of the schools had no toilets. Of the 70% of schools with toilets, only 50% of the toilets were functional. Of those schools with toilets, 94% of them used pour-flush latrines, however only 9% of them had a reliable water supply. In terms of actual toilet cabins, the 2012 National Stock-take of School Facilities and Equipment Report shows that out of 4,472 toilet cabins built so far, only 2,839 cabins (63.5%) were in good condition. Out of the required 11,000 school toilet stalls, 4,472 had been built, leaving a gap of 6,520 stalls. According to the 2011 survey, hand washing facilities were available in 39% of the schools. Therefore, while hygiene promotion is part of the curriculum and schools sponsor related extra-curriculum activities, the infrastructure (hand washing facilities and/or availability of water) were not in place to provide an enabling environment for hand washing in more than 60% of schools
2. Poor	more than 60% of schools. Lack of reliable and sufficient water supply to keep the facilities
sustainability 3. Lack of shared national standards	working is one of the main reasons for poor WASH conditions in schools. The 2011 survey shows that poor maintenance of the hand washing facilities was a common problem. Approximately 62% of water and sanitation systems built since 1999 are not functioning due to poor management and lack of ownership by students and parents combined with limited investments in school WASH ² . Sustainability of WASH facilities, especially operation and maintenance (O & M), remains a challenge. This is attributed to unclear responsibility for maintaining school water supply system, lack of funds to procure spare parts (e.g. water taps) for repair and consumables for maintaining sanitation and hygiene facilities. Timor-Leste has not had common guidelines and standards for WASH in schools. In the past each organization has been introducing its own types of sanitation and water facilities. Some of the facilities do not meet basic standards such as availability of functional hand washing stands, separate toilets for girls and boys and access for learners with disabilities. National standards are required to uphold the rights of children to access safe and secure facilities that promote their health
	and dignity and also guarantee their safety and security.
4. Inadequate sub-	The capacity to promote, sustain and entrench sound hygiene
sector capacity	practices and to sustain physical WASH facilities is very low in the

2 PBA/SCH/2011/0285, UNICEF, 2012

level, orientation is required to head-teachers, teachers, school guards, PTAs and students to understand, plan, and run O&M of the facilities. A gap also exists for specialised teacher training on WASH i schools. Lack of trained teachers, appropriate Information, Education and Communication (IEC) materials for hygiene promotion and shortage of consumables (e.g. soap for handwashing and toile cleaning materials) are also the limiting factors.
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1.4 WASH in school guidelines

These WASH in school guidelines aim to contribute to an enabling environment for improving health, boosting educational achievements and promoting gender equity in all Timor-Leste basic schools. The guidelines have been written to harmonize the approaches to WASH in school interventions, enhance sustainability and maximise benefits for the pupils. The guidelines include policies, standards and norms for guiding all actors in providing sustainable access to safe and child-friendly facilities along with hygiene education and promotion in schools. The guidelines are based on local context but pay due attention to internationally accepted standards and best practices. The guidelines have been derived following a long process of intensive consultation with a wide range of stakeholders and are therefore binding to all actors. The guidelines set clear levels of acceptability and standards, and give practical guidance on how to achieve them. Every agency intending to intervene in WASH in schools must therefore study these guidelines thoroughly and be familiar with the national standards and norms.

These guidelines are designed to help strengthen water supply, sanitation and hygiene interventions in schools, while recognizing the importance of, and links with, other areas of environmental health, such as air quality and physical safety.

1.5 Target of the guidelines

These guidelines are developed for use by all actors and stakeholders in the WASH in schools sub-sector in Timor-Leste. They will be particularly useful for implementing agencies, managers, planners, architects, water and sanitation technicians, teaching staff, school boards, district WASH committees, local authorities and similar bodies. These groups are encouraged to work together to set relevant, achievable and sustainable targets for water, sanitation and hygiene in schools.

2 Policy and Strategic Framework

2.1 Guiding policy statements

The government of Timor-Leste places much emphasis on provision of safe water, sanitation facilities and hygiene promotion among its citizens, including schoolchildren. The emphasis is backed with the government's strong commitments to action. WASH in schools hinges on the following policy statements and commitments.

"Ministry of Education is prioritizing the provision of water and appropriate sanitation facilities at all schools. The Ministry's policies require that all primary schools will have access to water (as clean as is practically possible) and all school children will have access to appropriate, gender specific, sanitation facilities" *Timor-Leste Ministry of Education.*

"Our objective is to provide clean piped water to all government schools by 2020" National Strategic Development Plan (2011-2030).

"Particular attention will be given to developing strategies and actions to assist girls and boys with disabilities to ensure that they are not disadvantaged in enrolment or in the successful attainment of education at all levels."

National Strategic Development Plan (2011-2030).

"It shall be incumbent upon the State to ensure the existence and availability of universal water distribution service."

Water Decree, Law 2004/04.

"A high priority of this government is for Timor-Leste to have a healthy population and environment. Sustainable improved access to sanitation, environmental health and hygiene behaviour are among the most important ways to achieve this."

National Basic Sanitation policy.

"The minimum level of service of every household, institution, and public place shall be improved sanitation including a hygienic toilet, hand-washing facility, and safe solid and liquid waste management."

National Basic Sanitation policy.

"No construction of public sanitation facilities (including schools) shall begin until sustainable and effective arrangements for operation and maintenance are agreed with the owners and managers of the facilities."

National Basic Sanitation policy.

2.2 Vision

WASH in schools in Timor-Leste is guided by the international WASH in schools vision, which states:

"Every child goes to a school where there is safe water, good sanitation and hygiene education and where children can learn, play and grow with pride and dignity."

The international vision for WASH in schools harmonises with the child-friendly (Eskola Foun) vision statement, which is: "Quality education is education that works for every child and enables all children to achieve their full potential," and the vision and long term direction of the Ministry of Education on School Health Programme, which states: "Healthy school supports good education which leads to building of strong nation."

2.3 Strategic framework

WASH in schools is guided by a framework built on five pillars:

- 1. Enabling environment
- 2. Provision of water supply and sanitation facilities
- 3. Operation and maintenance for sustainability of facilities
- 4. Behavioural change
- 5. Linking with community

Table 1: Pillars and strategies of WASH in schools

Pil	lar	Strategies	Responsible
1.	Enabling environment	 Strategies for creating positive environment for implementation cover: Evidence-based planning for services Integration of WASH in schools with inter-sectoral development plans Design for standard facilities with options Policy-formulation Coordination and collaboration Capacity development Funding and resource mobilization Awareness and advocacy Monitoring, evaluation and compliance 	Policy makers
2.	Provision of water supply and sanitation facilities	 Provision of quality physical facilities for WASH in schools include: A reliable source that supplies sufficient water Adequate toilets and urinals that are sensitive for special needs of menstruating girls and disabled children Sufficient, functional and strategically located hand washing Facilities for proper and safe disposal of solid wastes 	Implementing agencies and district BESI committee

		 Increasing coverage by scaling-up successful models and promoting approaches that enhance sustainability of WASH services Development of clear operation and maintenance plan/agreement with facility owners 	
3.	Operation and maintenance for sustainability of facilities	 Operation and maintenance for sustainability of facilities covers: Clear plans for facility maintenance Budget for minor and major repairs Availability of skills for repairs at local level Availability of tools and materials for repairs Daily toilet cleaning plans Toilet use training plan and codes Toilet cleaning materials Plans for provision of soap for hand washing Daily procedure for operating and maintaining hand-washing facilities 	Parents, staff and students
4.	Behavioural change	 The strategies for student behaviour change for better hygiene include: Inclusion of WASH in school messages in the school curriculum Child-centred and participatory hygiene promotion through extra curricula activities Hygiene promotion programme supported by informed and motivated teachers Availability of stimulating IEC materials on behaviour change Standardized hygiene messages that are locally adapted to the context of Timor Leste Teacher training at pre-service level and through short courses includes WASH in schools and also child-to-child approach. Hygiene is factored in the design of facilities 	Policy makers, implementers, teachers and students, district BESI committee
5.	Connection with community	 The strategies for connecting school WASH with the community include: Parents participate in school WASH events Students have outreach programme to the community Both school and home provide facilities that support students' good hygiene behaviour Community operation and maintenance workers involve school WASH in their work schedules 	Students, teacher, parents and Water Users Committee (GMF)

3 Institutional Structure and Roles

3.1 National level structure

The WASH in Schools Technical Working Group (WinS TWG), coordinated by the National Directorate of School Social Action in the Ministry of Education, has the overall responsibility of WASH in schools. The technical group falls within the School Health Department (SHD) that will have a national WASH in school focal point to lead WASH in school activities. The WASH in schools focal point will liaise with relevant state and non-state agencies at the national level and coordinate the activities of the district WASH in schools focal points. The overall WASH in School work of SHD will be guided by the WinS TWG that will have the following organogram:



Fig. 1: Core members of the WASH in schools technical working group

The roles of the WASH in schools TWG cover policy formulation and implementation, coordination, standards setting and compliance, planning, resource mobilisation and advocacy, capacity building and monitoring. As an overseer of WASH in schools, the Group maintains strategic and active connections with the key partners and agencies, particularly the EMIS unit, the Infrastructure and Facility Unit (IFU), Ministry of Health, Ministry of Public Works (NDSA), Ministry of Administration for State (Decentralization Development Programme and Local Development Programme), development partners, the school health department and district WASH Committee and district WASH in school focal points. The unit works with these agencies and partners through formal and informal interactions.

3.2 Strategies of the WASH in Schools Technical Working Group

In order to perform its functions, national WinS TWG employs the strategies detailed in table 2.

	Function	Strategies
1	Policy formulation and implementation	1. Ensuring inclusion of WASH in school components in the national policy framework, particularly in the following:
		 National water and sanitation policy and strategies National education policy and strategies National health policy and strategies National environment policy and strategies.
		2. Formulating national WASH in school policies to respond to emerging needs and challenges.
		 Ensuring the policy components of WASH in schools are broadly consistent with international norms as embodied in the 2009 WHO/UNICEF standards.
		4. Ensuring that sub-sector agencies comply with national guidelines and standards.
2	Coordination	 Serving as the secretariat of the inter-ministerial and inter-sectorial WASH in school working group.
		2. Coordinating all WASH in school activities through the district's WASH committees (BESI).
		3. Liaising and fostering harmony among sub-sector actors, including

Table 2: Strategies of the national WinS TWG

		development partners, implementing agencies and policy makers.
		 Serving as the focal point for collation and dissemination of nat WASH in schools information.
3	Standards setting and enforcement	 Coordinates revision and updating of WASH in school guidelines standards to respond to national development needs and char international trends.
		2. Develops national regulatory framework that supports encourages compliance.
		3. Promotes conformity with national and international WASH in so guidelines and standards in school construction.
4	Planning	1. Setting realistic, evidence-based WASH in schools targets
		2. development of national WASH in schools development plans clear targets
		3. Ensure that the Ministry of Education planning process incl plans, targets and funding for WASH in Schools
		4. Ensure that CSO and NGOs are included in the WASH in Sch planning process
5	Resource mobilisation and advocacy	 Providing an analysis at the national level on the funding require WASH in Schools and the existing gaps.
		2. Ensuring that the national WASH in Schools development includes detailed funding requirements.
		3. Advocating for inclusion of WASH in schools in the education fur proposals and in the national budget.
		 Ensuring that agencies working school construction include budge provision for WASH in schools development.
6	Capacity building	 Ensuring WASH in schools short-courses are developed delivered to target school teachers, heads, PTAs and kitchen staf
		2. Ensuring that the national teacher training programmes include components of WASH in schools.
7	Monitoring	 Repackaging, publishing and disseminating WASH in sch information obtained from the annual EMIS survey and from periodic national surveys.

2.	Updating the WASH in Schools component in the EMIS to keep pace with changes in the sub-sector.
3.	Coordinating the scheduled, periodic and in-depth WASH in schools national survey.

3.3 Roles of national level stakeholders

Table 3: National level roles and responsibilities

Sta	keholder	Roles
1	WinS National TWG	 Policy formulation and implementation Coordination Standards setting and compliance Planning Resource mobilisation and advocacy Capacity building Monitoring
2	EMIS	 Administration of annual EMIS process, including a section on WASH in schools Production of synthesised EMIS report, offering evidence-base for interventions
3	IFU	Design of appropriate WASH in school facilities according to national guidelines and standards
4	MoH (EHD)	Hygiene promotion
5	MoPW	 Provision of water supply to schools Support in major repairs of water supply to school
6	Academia (University)	 Inclusion of WASH in schools in the pre-service teacher curriculum Support relevant research, studies and surveys
7	WinS Development Agencies	 Construction of facilities Hygiene promotion Capacity building Improvement of water supply
8	School Health Department (EHD) /MoE	Linking school health activities to WASH

3.4 Roles and responsibilities at the operational level

WASH in school roles and responsibilities at the operational level are outlined in table 1. The core activities include construction of toilets (financing, procurement etc), extension of water to school or facility or compound, hygiene education and promotion, facility operation and maintenance, facility use and care, fencing of the school compound and solid waste management.

Responsible	Construction of toilets (Financing, procurement etc)	Hygiene education and promotion	Extension of water to school or facility	Facility maintenance (minor and major repairs)	Facility operation , use and care	Fencing and solid waste management facilities
MoF / MoE	√ *	✓		✓		
МоН		✓*				
MoPW (DNSA)			√ *	~		
MoSA	~					~
PTAs				✓ (labour)		✓*
School director	~	~	~	✓*	~	~
Teachers		✓				
Students		✓			✓	
WASH or hygiene club		~			∕*	
Development agencies (Gap filling)	✓	~	~			

Table 4: Operational Level Roles and Responsibilities. Asterisk (*) indicates the functional lead

3.5 District structure, functions and strategies

The district education office has the overall responsibility of WASH in schools in the district. The office discharges this responsibility through the WASH in schools focal point and in close liaison with the district WASH committee, BESI, of which it is a core member. It liaises with the WASH in Schools Unit at the national level to ensure that sub-sector developments in the district are in line with the national plans, policies and strategies. The office coordinates district activities and check compliance with national guidelines and standards. The WASH in schools focal point in

the district education office is directly responsible for WASH in schools. The functions of the WASH in schools focal point are detailed in the table below.

	Function	Strategies
1	Coordination	 Liaising with national WASH in schools unit on policy, planning, and resources
		2. Serving as the WASH in school representative in the inter- ministerial district WASH committee (BESI).
		3. Coordinating all WASH in school activities in the district through the head-teachers
		4. Liaising and fostering harmony among sub-sector partners, among implementing agencies and in the district.
		5. Being responsible for WASH in school annual monitoring exercises (EMIS) in the district.
		6. Serving as the focal point for collation and dissemination of district WASH in schools information.
2	Policy guidance	 Providing technical guidelines and standards to implementers Promoting adherence to national guidelines and standards Approving any deviation from the national norms
3	Advocacy	1. Ensure WASH in schools is included in district planning and budgets
		2. Ensuring that agencies include plans for O & M in their WASH in schools projects
5	Capacity building	 Plan for district-wide capacity building of school directors on WASH in schools, with special emphasis on their role in operation and maintenance

Table 5: Functions and strategies of the WASH in Schools Focal Point

4 Capacity Building

Capacity building is a long-term development process that involves all stakeholders – ministries, local authorities, non-governmental organizations, professionals, community members, academics and schoolchildren. Training is a main component of capacity building, but it is not the only one. Capacity building advances human, scientific, technological, organizational and institutional resources and harnesses these resources to solve the problems that the society faces. Sustainability of projects and programmes depends very much on the quality of available resources. Capacity development aims to develop three things:³

- Skills: it should help people to perform their work more effectively
- Motivation: it should help motivate people to carry out their work better
- Enabling environment: the people involved need a supportive and enabling environment so that they can optimize the use of their skills

Funds must be allocated for successful capacity building exercises. Individual projects or larger programmes intending to implement WASH in school activities must allocate sufficient funds for capacity development. In addition, capacity development should not be a one-off event but a continuous and programmed process that links what has been achieved in the past with future plans. It should involve the whole establishment, targeting two levels:

- Individual level Capacity-building on an individual level will assist an individual to build and improve existing knowledge and skills. It will also establish conditions that allow individuals to put their knowledge into practice and to adopt new behaviours.
- Institutional level Capacity building on an institutional level involves aiding pre-existing institutions to fulfil their mandate. It should not involve creating new institutions, rather modernizing existing institutions and supporting them in forming sound policies, organizational structures and effective methods of management.

³ Rajiv Gandhi Drinking Water Mission India and IRC, 2002

4.1 Capacity requirements

Capacity building for WASH in schools shall target the national, district and school levels, either focusing on individuals or institutions. The key capacity gaps that need to be filled at each level and the recommended strategies for filling the gaps are as follows:

Capacity-building strategy	Capacity needs	Level
 Strengthening the WASH in schools national unit in the Ministry of Education through: Sufficient staffing Provision of specialised and relevant trainings for the personnel Provision of necessary equipment, tools and materials Administrative support 	 Sufficient number of staff with the right skills to fulfil WASH in schools mandates at the national level, namely: Policy formulation and implementation Coordination Standards setting and compliance Planning Resource mobilisation and advocacy Capacity building Monitoring 	National
 Strengthening the district WASH in schools focal point through: Provision of specialised and relevant trainings for the personnel Provision of necessary equipment, tools and materials Administrative support and political goodwill 	 Sufficient number of staff with capacity to fulfil WASH in schools mandate at the district level, namely: Coordination of district stakeholders Monitoring and compliance Depository of district WASH in schools information Support school directors to develop and implement WASH facility operation and maintenance plan 	District
Strengthening the capacity of PTAs for playing a more active role in school WASH service delivery. Strengthening the capacity of school directors for effective management of WASH in school facilities and sustaining behaviour changes: Direct trainings Exchange visits		School PTAs School directors
WAS beha	 Awareness of the importance of operation and maintenance of school WASH facilities 	

Table 6: Capacity needs and capacity-building strategies

Teachers	 Hygiene education and promotion skills using didactic and participatory approaches Monitor for effective use of school WASH facilities 	Strengthening the capacity of teachersfor effective hygiene education andpromotion in schools:• Short term trainings• Exchange visits• Pre-service training• Joint (district/sub-district) planning
Students	 Awareness of proper use and care of facilities Awareness of sound hygiene behaviours and their practice Ability to pass information on good hygiene and sanitation to communities and the society Capacity to use peer influence to improve hygiene behaviours 	 Strengthening capacity of school children to practice sound hygiene and to care for the WASH in school facilities: Formation of student-led WASH or hygiene clubs Involvement in child to child exercises Short trainings for WASH or hygiene club members Information in the school curriculum Short trainings and demonstrations in the school

4.2 Trainings

The quality of training must be good or the WASH in schools programme will suffer. Effective training methods which could be used are: participatory methods, field insights, presentation and analysis of practical methods and examples, and group planning activities which are of use after the workshop. Trainings at the school level should be carefully planned and executed, and should be tailored for each of the following groups.

a) Teachers

Water supply, sanitation and hygiene should be given a central place in the training and supervision of all teachers, because teachers provide role models for schoolchildren and are largely responsible for encouraging the participation of schoolchildren in maintaining a healthy school environment. In particular, teachers shall be conversant with life skills-based hygiene education approach.

Life skills-based hygiene education seeks to combine the teaching of hygiene principles with children's developing experience of life at home, at school and in the community. It aims, through participatory learning, to help children acquire knowledge, develop positive attitudes, and, critically, gain skills that enable them to improve their own lives and those of their families and communities. The emphasis on life-skills hygiene education is meant to go beyond traditional styles of teaching that emphasize memorization, so that children develop and practice new behaviours.

School teachers need to be trained before they can implement life skills-based hygiene education. This training should enable teachers to:

- Implement life skills-based education so that children develop new knowledge and healthy practices.
- Use/maintain facilities: manage activities and children in the school so that all children use and maintain their water and sanitation facilities.
- Organise outreach into the community by working directly with adults, such as the school management committee, and by helping children to motivate their families and community to practice hygienic behaviours.

Teachers need support to learn to use methods that engage students and parents in the education process and that require active participation. It takes time for most teachers and children to get used to this new education method.

b) Directors

Head teachers or school directors have an important role to play through their work with teachers and other staff, schoolchildren, parents and local authorities. They should be made aware of the importance of water, sanitation and hygiene in schools, and given guidance and support so that they can promote the development and maintenance of a healthy school environment.

c) Other staff

In some schools there may be other staff, such as cleaners, guards and kitchen staff, who are specifically responsible for maintaining healthy conditions. In their training and management, they should be made strongly aware of the importance of their role and should have the ability to apply basic principles of hygiene to their daily work.

d) WASH or hygiene club members. Children are an important agent for behaviour change in school in the community. Members of the hygiene or WASH club require the capacity to spread messages on how diseases are spread and how they can be prevented. In addition, club members need to know the purpose, functions of the club and how to use it creatively to bring about positive change.

4.3 Other capacity-building activities

If 'capacity development' means only a single training for one teacher per school, then the WASH in schools programme will probably fail because of teacher transfers and the need to involve the whole education establishment. While training is very important in the WASH in schools programme, there is a need to go beyond the training and to include other activities. For example, senior personnel will probably benefit more from a study visit to another district or county that has been active in WASH in schools, than from a training course. Experimenting with new ideas or the implementation of pilot projects can be very useful to help people gain new skills and experience that can later be applied on a large scale. Therefore, capacity

development can be accomplished not only through training courses, but also through study visits, group planning, through research and studies, and implementation of experiments and pilot programmes.

5 Hygiene Education and Promotion

Many children learn the most important hygiene skills at school, and for many this is where they are introduced to hygiene practices that may not be promoted or possible at home. Teachers can be effective advocates for hygiene, through hygiene education, promotion and through acting as role models for schoolchildren. Contact between the school and homes – for example, through parent-teacher meetings – should be used to link hygiene promotion at school and in the home.

Effective hygiene education and promotion must be support by appropriate water supply, sanitation and hand-washing facilities. Teachers cannot credibly convey the importance of hand-washing, for example if there is no water or soap in the school, or promote proper use of toilets if they avoid using toilets because the toilets are dirty or unsafe.

For WASH in schools to succeed, all students and school staff must practise proper hygiene and sanitation behaviours. Therefore, hygienic and sanitation practices must be built into the school curriculum as a permanent feature and promoted through extra- and co-curricula activities.

5.1 Definition of terms

The terms 'hygiene education' and 'hygiene promotion' as used in these guidelines connote two distinct but related activities. The purpose of both is to impart knowledge about good hygiene, create positive attitude and ultimately lead to sound hygiene practices. For the purpose of these guidelines, the two terms and the word 'hygiene' are defined as follows:

1. Hygiene is the practice of keeping oneself and one's surroundings clean, especially in order to prevent illness or the spread of disease.

2. Hygiene education covers teaching and learning the facts about hygiene and it is a didactic, classroom-based approach. But this knowledge alone, though profoundly important, does not automatically lead to changed behaviour.

3. Hygiene promotion is a planned approach to preventing diarrhoea and related diseases through widespread adoption of safe hygiene practices. In the school, it begins

with, and is built on, what schoolchildren know, do and want. Hygiene promotion involves students in practical or participatory hygiene actions.

5.2 The 5 domains of hygiene

Hygiene education and promotion in schools shall cover all five domains of hygiene as listed in table 7. However, emphasis shall be placed on the key messages of each domain. Overwhelming evidence shows that adoption of these key messages has high impacts in disease prevention, particularly with regard to diarrhoea and other enteric disease as well as skin and eye infections.

Ну	giene domain	Associated key message
1	Personal hygiene	Wash hands with flowing water and soap after defecation, before
		preparing food, before eating and after playing.
2	Safe disposal of	Always use the toilet to urinate and defecate and keep the toilet in good
	human excreta	condition.
3	Water hygiene	Drink water from a safe source, and have it treated if the source is unsafe
4	Environmental	Safely and regularly dispose solid and liquid wastes to control disease
	and school	vectors
	hygiene	
5	Food hygiene	Food preparation, storage, serving and eating must be done with uttermost cleanness, ensuring that raw food, especially meat, and cooked food do not mix and that food is not exposed to dust, insects or animals. Any foods eaten uncooked, such as fruits and vegetables, must be cleaned thoroughly with safe water. Utensils used for food preparation, serving and storage must also be cleaned prior to use and stored carefully.

Table 7: Hygiene domain and key messages

Box 3: Key Hygiene messages

Key hygiene messages

- 1. Wash hands with flowing water and soap after defecating, before eating and after playing.
- 2. Always use toilet to urinate and defecate and keep the toilet in good condition.
- 3. Drink water from a protected source, and have it treated if there is any doubt about the quality of water, especially microbiological quality.

olo I ramework of nygiene caacation and promotion

Hygiene education and promotion shall be based on the framework of the F-diagram, which summarises the faecal oral transmission routes (which lead to diarrhoeal and several other enteric disease transmission) and how they can be prevented (blocking the routes of

transmission). The diarrhoeal and enteric diseases are transmitted when faecal matter from one person is ingested by another person. This can happen in several ways (routes), but involves one or several of the following means: fingers, flies, fluids, food and field (Fig. 2). The transmission routes can be effectively blocked in three simple methods:

- Sanitation
- Hand-washing
- Water quality



Fig. 2: The F-diagram showing disease transmission routes and how the routes can be blocked.

1. Hand-washing

Hand-washing is effective if it is done with soap/ash and prioritised at all critical times.

a) Proper hand washing involves:

- Flowing or running water (not dipping hands in a bowl or basin)
- Sufficient quantity of flowing water, at least one-quarter of a litre per person
- Soap⁴ or ash
- Thorough rubbing of both hands, including the spaces between fingers
- Rinsing with clean water⁵

⁴ Soaps come in bar, powder or liquid forms

⁵ Use of communal towel for drying hands at school is NOT encouraged as it is likely to reintroduce contamination.

b) Critical times for hand washing are:

- After defecating
- Before eating
- Before preparing food
- After handling a baby's faeces
- After playing or working in the field

2. Sanitation

Children should be encouraged to always use a toilet. Open defecation (in bushes, rivers or in flood water) spreads diseases. When children understand this fact and are using a toilet at school, they should encourage their parents to construct toilets. In addition to stopping the spread of faecal-oral diseases, school and household toilets have other advantages and children also need to understand these. Toilets provide:

- Privacy and dignity: you do not have to worry that someone is watching while you defecate
- Security: you do not have to move to the bush at night where you may encounter people with evil motives, dangerous wildlife or environmental hazards such as holes etc.
- Comfort: you do not have to move very far in the dewy vegetation or in the rain or wade in floods in order to defecate
- Prestige: presence of a toilet in the household shows that the owners are informed and understand its value

3. Water quality

A number of diseases come from drinking unsafe water. Pupils should be taught to drink water only from improved sources. If a child has to drink by hand, he or she must make sure that the hands are properly washed before drinking. The containers used to draw, transport, and store water must be kept clean and covered at all times.

Box 4: Facts about diarrhoeal diseases

Facts about diarrhoeal and other enteric diseases

- 4. Diarrhoeas and other enteric diseases, such as typhoid, can be prevented by simple hygiene
- 5. The most dangerous pollutant around the school is human faeces and most diseases are spread by faeces
- 6. One gram of human faeces contains:
 - 10 million viruses
 1 million bacteria
 11 1,000 parasite cysts
 12 100 parasite eggs

5.4 Approaches to hygiene education and promotion

Hygiene education and promotion involves a variety of approaches, all propagating the same 'standardised messages' to avoid confusing students. Five principle approaches shall be used:

- 1. Teacher training
- 2. Hygiene education
- 3. Child-to-child
- 4. Mass media
- 5. Other approaches e.g. CHAST

1. Teacher training

WASH in schools content and methodology shall be included in the pre-service teacher training curriculum. The purpose is to make teachers aware of the value of WASH in schools and to provide them with skills and positive attitude toward promotion of hygiene among schoolchildren. Every basic school teacher will be conversant with:

- Basics of WASH in schools
- Operation and maintenance of WASH in schools facilities.
- Hygiene and disease prevention
- Hygiene education and hygiene promotion
- Child to child approach to hygiene promotion

In addition, teachers may receive short refresher courses on hygiene promotion through individual agencies or government ministries of health and education. Such courses may be tailor-made to address a particular situation or target group, but the core hygiene messages shall remain the same nationally.

2. Hygiene education

The national basic school curriculum contains information on hygiene and sanitation and it is taught countrywide. The curriculum shall be reviewed periodically to ensure that it's WASH in schools content reflects national needs and international trends.

3. Child-to-child approach

Child-to-Child (CtC) is an approach to health promotion and community development that is led by children. It is based on the belief that children can be actively involved in their communities and in solving community problems. CtC projects involve children in activities that interest, challenge and empower them. In doing so, the approach "encourages and enables children to play an active and responsible role in their own health and development, other children's, their families and communities. Every schoolchild shall be involved at least once a year in the child to child activities.

6 Operation and Maintenance for Sustainability

One of the greatest challenges facing WASH in schools is sustainability. Sustainability means that the benefits of WASH in schools continue a long time after programme implementation in the school. Approximately 62% of water and sanitation systems built since 1999 in Timor-Leste were not functioning 13 years later⁶. This situation is explained by poor management and lack of ownership by students and parents, combined with limited budgetary allocation for operation and maintenance.

However, sustainability covers more than keeping the physical facilities working. The aspects of WASH in schools that must be sustained are:

- Well-used and maintained WASH in schools facilities
- Regular teaching of life skills-based hygiene education in all classes
- Well-trained and committed teachers and personnel
- The adopted good hygiene practices by all including children, teachers and preferably parents and community members
- Active involvement of the parents and other community representatives in continued WASH in schools activities in all schools

6.1 The concept of sustainability

A WASH in schools programme shall not end when the water and sanitation facilities have been constructed. Construction should mark a new beginning as children participate in water/sanitation-related educational activities and start to use the facilities. The period following construction usually receives too little attention from programme planners and implementers, and continuous inputs are needed to ensure use and maintenance of facilities and the implementation of life skills-based hygiene education. The problems that appear in many schools include: rapid run-down of facilities, irrelevant curriculum, poor organisation of the operation and maintenance of facilities so that maintenance does not take place, and lack of interest by the school community.

Box 5: Benefits of sustaining WASH in school facilities

Benefits of sustaining facilities

- Students continue to benefit
- It is more cost effective
- Investments do not get wasted
- Releases resources to meet other needs
- Supports continuity of acquired behaviours
- Strengthens links between school and community

6.2 Operation, monitoring and maintenance

1. Operation

The activities that fall under operation are:

- Using the facilities as intended
- Regularly cleaning the latrine floor and bowl with water and detergent or soap
- Opening and closing doors with care
- Provision of cleaning materials and tools
- Ensuring that unsuitable materials do not get into the toilet system
- Handling water facilities with care

2. Monitoring facilities

WASH facilities in school should be monitored to ensure they are working as intended and are used properly. Any functional failure or misuse should be reported promptly to the school authority. The school authority should, in turn, take the necessary corrective action. Monitoring is done by students, teachers and janitors if a school has them.

- Toilet is used as intended without unnecessary soiling
- The doors are functioning properly
- There is no blockage in the system

- Water is available for sanitation and hand washing
- The hand washing facilities are functioning and used as intended

3. Maintenance

Maintenance covers both minor and major repairs. Minor repairs should be done in the shortest possible time to ensure that the situation does not get worse and that the students do not suffer for lack of facilities. Typically, minor damages should be fixed within 1 - 2 hours. Minor repairs should be done using school resources and without consulting the PTA. Major repairs require consultation with the head-teacher and the PTA. While the major repairs are being done, alternative facilities should be identified for students, such as use of home facilities if repairs can be done over the weekend or during the school holiday. The head-teacher or school director is responsible for both minor and major repairs. He or she must make sure the work is done speedily and at the highest possible standard of workmanship.



Fig. 3: Sustainability cycle for WASH in school facilities

4.3 Policies on sustainability

1. Operation and maintenance of school WASH facilities, along with continued hygiene education and promotion, is the responsibility of the school.

2. Funds for operation and maintenance of school WASH facilities shall be provided by the government, but may be supplemented by implementing partners or the PTA.

3. "No construction of public sanitation facilities (including schools) shall begin until sustainable and effective arrangements for operation and maintenance are agreed with the owners and managers of the facilities." (National Sanitation Policy)

6.4. 0 & M roles and responsibilities

Table 7: Roles and responsibilities for O & M

Role	Responsible
Development of O & M plans as well as plans for sustaining	Implementing agency
behavioural change	
Proper and careful use of facility	Students
Daily monitoring and reporting on abuse or malfunctions	Students
Cleaning	Students/janitor/teachers
Training on facility use, care and monitoring	Teachers
Frequent monitoring of toilet performance	Teachers/janitor
Provision of soap/ash for hand washing and any other toiletries	PTA
Provision of cleaning materials, such as brooms and buckets	PTA
Minor repairs	Head-teacher
Major repairs	PTA

6.5 Planning for 0 & M of facilities

Clear plans for operation and maintenance of facilities covers:

- Development of contingent budget for minor and major repairs
- Identification and engagement of locally available skills for both minor and major repairs
- Identification of tools, spare parts and other materials required for repairs
- Development of daily toilet cleaning plan
- Development of toilet use training material and user code
- Identification of sustainable source of toilet cleaning materials
- Plans for provision of soap for hand washing
- Develop plans for operating and maintaining hand-washing facilities

6.6 Plans for sustaining behavioural change

- Life skills-based hygiene education is part of the curriculum of primary and secondary schools and teacher education
- Life skills-based hygiene education materials for the different age groups of primary schools and lower secondary schools have been developed and distributed, are replaced as needed, and are used
- Teachers and district education officers have been trained in the use of life skills-based hygiene education materials and the life skills-based hygiene education curriculum
- Life skills-based hygiene education is taught at schools on a regular basis, at least once a week per class
- Positive changes in the hygiene behaviour of the students and the teachers are achieved and sustained over time

7. Monitoring

The purpose of monitoring WASH in schools is to obtain information that shall be used for planning and for making decisions on resource allocation. Monitoring information is critical for the government and for the support agencies alike. The data will highlight the scale of the problem and it is useful for building evidence-based advocacy, assessing progress and evaluating interventions. Monitoring data is also used to ensure accountability and to evaluate progress.

Monitoring is far more than collecting information to 'see how things are going'. It is meant to improve programmes and activities over the long term. Monitoring involves checking, understanding the results of checking and then acting to improve a situation. The action should, of course, be taken at the lowest possible level, with cross-checks to make sure that the situation has in fact improved.

7.1 Monitoring indicators

Indicators are 'signals' that show whether the guidelines have been followed and standards attained in a WASH in schools project or programme. An indicator is 'a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect changes connected to an intervention, or to help assess the performance of a development actor.⁷ Without indicators, the guidelines would be little more than statements of good intent, difficult to put into practice. The following indicators will be applied in monitoring of WASH in schools in Timor-Leste.

⁷DAC Glossary of Key Terms in Evaluation, May 2002

Table 8: Water quality indicators

1	Microbiological quality
2	Chemical qualities
3	Acceptability/physical qualities
4	Treatment

Table 9: Water quantity indicators

1	Quantities of water for drinking
2	Quantities of water for sanitation
3	Quantities of water for hand washing
4	Quantities of water for other purposes

Table 10: Water facilities and access indicators

1	Functionality of water point
2	Reliability of water point
3	Location of water points
4	Shower for boarding schools
5	Laundry facilities, with soap or detergents

Table 11: Toilet indicators

1	Number of toilets / stalls
2	Access to toilets
3	Toilet privacy and security
4	Toilet hygiene
5	Cultural and social sensitivity
6	Hand washing facilities
7	Cleaning routine

Table 12: Hygiene promotion indicators

1	Hygiene education in school curriculum
2	Promotion of hygiene through extra-curricula activities
3	Soap for hand washing

Table 13: Waste disposal indicators

1	General cleanliness of the school environment
2	Solid waste management
3	Waste water management

Table 14: Food storage and preparation indicators

1	Food handling and preparation
2	Contact between raw and cooked food
3	Level of food cooking
4	Food storage temperature
5	Safety of water and other food ingredients

7.2 Approaches to monitoring

Monitoring of WASH in schools shall employ the following 3 approaches:

- Annual EMIS
- Scheduled (5 yearly) WASH in schools national survey
- Ad hoc surveys and studies

1. The EMIS

A set of basic monitoring questions shall be incorporated into the national Education Monitoring Information System (EMIS) questionnaire, which is administered annually by the Ministry of Education. The most attractive features of EMIS are that it covers all schools and it is relatively inexpensive. EMIS questionnaires are filled by head-teachers with coordination from the district education offices. This means that the data is highly reliable. However, EMIS collects many types of school data and can accommodate only a small selection of WASH in schools questions. In addition EMIS collects only quantitative data at a very macroscopic level. Data analysis is done at the national level and compiled into 'Annual National Stock-take of School Facilities and Equipment's' report. To fill the information gaps left by EMIS, a second national monitoring procedure shall be followed.

2. Scheduled WASH in schools national survey

Scheduled WASH in schools national survey shall be carried out once every 5 years. This survey event shall comprise of a comprehensive study, well designed and statistically impeccable, covering all aspects of WASH in schools. The survey will be participatory and will employ a variety of tools, including questionnaires for school heads and for children, focus group discussions, key informant interviews and observation checklists to reveal the entire national spectrum of WASH knowledge, attitudes and practices (KAP) in schools. It will analyse the policy environment at the national and district levels and the operational environment at the agency and school levels. The quantitative information will cover at least all WASH in schools indicators categorised in these guidelines (section 7.1). In-depth studies (focus group discussions and key informant interviews) shall provide qualitative information that triangulate quantitative data and ensure validity. All data shall be desegregated by district, sub-district and by gender to reveal any disparities. In addition, the survey will obtain secondary data, particularly with regard to water quality. The first survey will provide national baseline data. This scheduled WASH in schools survey will be conducted by a team of experts and coordinated by the MoE at the national level.

3. Ad hoc surveys and studies

Ad hoc WASH in schools surveys shall be done by any agency in need of specific information about a particular area, aspect or district. All ad hoc WASH in school surveys, assessments, evaluations and studies shall be approved by the ministry through a written permit. The ministry shall be the custodian of the results from such studies. It is therefore mandatory for the agency
conducting ad hoc WASH in school studies to involve MoE from the beginning, and to provide copies of the final results to the Ministry's data bank.

7.3 EMIS questions

1. Does the school have a toilet facility?

Yes	[1]
No	[2]

2. Does the school have a hand washing facility?

Yes	[1]
No	[2]

3. Is sufficient soap (or ash) available for hand-washing?

Yes, everyday	[1]
Yes, but only sometimes	[2]
No	[3]
4. Does the school have improve	d water supply?
Yes	[1]
No	[2]

5. Does the source provide enough water for drinking, hand-washing, toilet use and food preparation?

Yes	[1]
No	[2]

6. What is the school's main source of water?

Table 15: Main sources of water for a school

Piped into school building	1	Protected dug well	6	River
Piped into school compound/yard	2	Unprotected spring	7	No water available
Public tap	3	Protected spring	8	Other (state)
Tube-well/borehole	4	Rain water		
Unprotected dug-well	5	Cart with small tank/drum		

7. How often is the water source functioning?

Everyday	[1]
One day per week	[2]
2 – 4 days in a week	[3]
Not functioning	[4]

8. Are toilets for boys and girls built in separate parts of the school compound?

	•	
Yes		[1]
No		[2]

9. Number and condition of facilities

Table 16 [.]	Tools for	monitorina	school toilets
Tuble 10.	10010101	mornioring	

Facility	Total	Level of func	tionality		
	number	Number	Number	Number	not
		functioning	functioning	functioning	
		normally	but with		
			defects		
1. Toilet stalls for female students					
2. Toilet stalls for male students					
3. Urinal for boys					
4. Urinal for girls					
5. Toilet stalls for female teachers					
6. Toilet stalls for male teachers					
7. Toilet stalls for physically challenged children					
8. Hand washing stations/points					

10. Is water treated in any way to make it safer before children drink it?

Yes	[1]
No	[2]

11. Does the school have a student-led health or hygiene organization? Yes [1]

Yes	[1]
No	[2]

12. Is hygiene promoted through extra-curricula activities in the school?

Yes	[1]
No	[2]

13. Are there waste disposal baskets in the classrooms?

Yes in all classrooms	[1]
Yes in some classrooms	[2]
No	[3]
14. Is solid waste in the school dis	posed of weekly or more frequently?
Yes	[1]
No	[2]

15. Is the sludge (sewage) from the school toilet or septic tank always emptied and removed before they are full?

Yes	[1]
No	[2]

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7.4 Data analysis and dissemination

EMIS data is analysed and reported in the annual '*National Stock-take of School Facilities and Equipment*.' The report is circulated to stakeholders. It is the mandate of the WASH in Schools Unit in the Ministry of Education to extract the 'WASH in schools information' component, where necessary, repackage it and disseminate it to for strategic purposes. Data from the 5 yearly survey shall be desegregated by district, sub-district and by gender to reveal any disparities. The WASH in Schools Unit shall make all available WASH in schools data readily available to users, in easily accessible formats, both electronic and print, and actively create awareness on the implications of the data.

8. Guidelines and Standards

This chapter presents the technical guidelines and standards, which must be followed in providing WASH in school services in Timor-Leste. Guiding notes are provided for each set of standards, and should be consulted carefully, as they elaborate on the practical implications of each standard. The guidelines and standards are derived from the international practice, particularly WHO-UNICEF recommendations, and adopted by Timor-Leste stakeholders to reflect the specific country conditions. The guidelines deal specifically with water supply (water quality, quantity and access), hygiene promotion, sanitation (quality and access), cleaning and waste disposal, and food storage and preparation. The terms 'guidelines,' 'standards' and 'guiding notes' as used in this document are defined as follows:

Guidelines

Guidelines are brief statements that describe the WASH in schools results that agencies should aim at achieving and maintaining. The guidelines are based on the principle that every child has the right to go to school where there is safe water for drinking, good sanitation and hygiene facilities to safeguard children's health and where children can learn, play and grow with pride and dignity.

Standards

Standards are the accepted criteria or benchmarks for determining to what level these results should be achieved. Each of the WASH in schools guidelines has been quantified into a set of standards that are easy to verify objectively.

Guiding notes

Guiding notes are provided for each standard. The notes provide additional information, including justification and practical application of the set standards.

8.1 Types of standards

Many schools in Timor-Leste are currently far from achieving acceptable standards of water, sanitation and hygiene, and may have no suitable facilities at all, because they lack resources, skills or adequate institutional support. Achieving appropriate standards will often not be possible in the short term. Therefore, it is necessary to both prioritize required improvements and work in a phased way so that the most urgent problems (or those that can be addressed rapidly) are identified and targeted immediately, and other changes can subsequently be made in a phased manner. To facilitate this model of development, three sets of WASH in schools standards are provided.

1 Essential short-term standards

Essential standards are the most basic WASH in schools requirements that every school, no matter how disadvantaged, must achieve. The essential short-term standards should be achieved at the school level using locally available resources. The head-teachers, school directors and PTAs in schools that are not receiving donor- or

government-funded WASH in school interventions must be aware of and comply with the essential short-term standards (See box 1).

2 Minimum standards

The minimum standards describe the quantities and qualities expected from donor- or government-funded WASH in schools interventions. All agencies working in the subsector must be aware of and comply with these standards. Non-compliance with the minimum standards will have to be justified and approved by the District WASH Committee (BESI).

3 Recommended standards (or National standards)

The recommended WASH in National schools standards, set the benchmarks for optimal service level. Agencies are encouraged to aim at the national standards wherever resources are available. Where national standards are not provided, the minimum standards must be met or exceeded.

8.2 Essential short term standards

Through an incremental development process, the service level in a school can be upgraded from 'essential' to 'minimum' and finally to the 'National' standards. Planning and implementation of WASH in schools interventions at lower standards should anticipate upgrading to the next level. Following are the essential short term standards that each school should have:

Box: 6 Essential short-term standards

- 1. The essential short-term standards provide basic sanitation facilities (with separate facilities for boys and girls) that enable schoolchildren and staff to avoid open defecation. This may entail measures as basic as digging temporary pit latrines.
- 2. Provide water and soap (or ash) for hand-washing after going to the toilet and before handling food. This may be achieved using simple and economical equipment, such as a pitcher of water and a basin or 'tippy-tap'.
- 3. Provide safe drinking-water from a protected groundwater source (spring, well or borehole), or from a treated supply, and keep it safe until consumed. Untreated water from unprotected sources must be made safer by simple means such as boiling or filtering, or by using simple water treatment methods, such as chlorination. Schoolchildren and staff may have to bring water from home if the school does not have access to a safe water source. Alternatively, the school must have water storage facilities (big jars or buckets with lid) for clean water and water-scoops provided for safe handling.
- 4. Fenced school grounds so that a clean environment can be maintained. Fencing may be made cheaply with local materials.
- 5. Promote hygiene, along with hygiene education, to increase children's understanding of the importance of hygiene and a clean school environment.

6. Plan and implement improvements in order to achieve desired standard for services as soon as possible.

8.3 Toilet Facilities

E.

Guideline 1: Toilet Facilities

Sufficient, accessible, private, secure, clean and culturally appropriate toilets are provided for schoolchildren and staff. Separate toilets provided for boys and girls and children with disability.

Aspects	Minimum standard	National standard	
Number and Location	Separate facilities for girls and boys including additional cubicle for teachers. Min numbers of cubicles/ stalls:	Separate facilities for girls and boys including additional cubicle for teachers. Min numbers of cubicles/ stalls:	
	Girls• 1 toilet stall for 40 girls• 1 additional stall for girls menstruating and/or with disability.	 <u>Girls</u> 1 toilet stall for 20 girls 1 additional stall for menstruating girls 1 stall fitted specially for use by disabled girls 	
	 Boys 1 toilet stall for 40 boys without urinal 1 toilet stall + 1 urinal for 50 boys 1 toilet stall fitted for use by disabled boys 	 Boys 1 toilet stall for 20 boys without urinal 1 toilet stall + 1 urinal for 30 boys 1 toilet stall fitted for use by disabled boys 	
	 Staff 1 toilet stall for female staff (fitted with menstruation facilities) 1 toilet stall for male staff 	 Staff (separate block) 1 toilet stall for female staff (fitted with menstruation facilities) 1 toilet stall for male staff 	
Access	 Toilets must be easily accessible to all, including staff and children with disabilities. To achieve this standard: Toilets should be no more than 30 m from all users At least 2 toilet stalls, one for boys and one for girls, must have special fixtures such as an extra wide door, handrails, and a large handle for the latch, for use by disabled students. 	 Toilets must be easily accessible to all, including staff and children with disabilities. To achieve this standard: Toilets should be no more than 30 m from all users At least 1 toilet stall should have steps and extra-lid with small hole for use by small children At least 2 toilet stalls, one for boys and one for girls, must have special fixtures such as an extra wide door, handrails, and a large handle for the latch suitable for use by disabled students. 	
Privacy and security	• Male and female toilets must be completely separated with adequate visual, noise and odour barrier.	Male and female toilets must be completely separated with adequate visual, noise and odour barrier.	

	 The toilets must have doors that are lockable from inside and not from outside. Toilets should not be located in secluded parts of the school compound where sexual harassment is likely to occur. 	 The toilets must have doors that are lockable from inside and not from outside. Toilets should not be located in secluded parts of the school compound where sexual harassment is likely to occur.
Hygienic design	 The latrine slab surfaces should be waterproof and made of durable material that can be washed and is resistant to cleaning products The design of the toilet should include measures to minimize odours and control the breeding of flies and mosquitoes 	 The latrine slab and lower wall surfaces should be finished in ceramic tiles to facilitate easy cleaning. Floor tiles should be non-slippery. The design of the toilet should include measures to minimize odours and control the breeding of flies and mosquitoes
Cleaning and maintenance routine	 A cleaning and maintenance routine must be in operation, and ensures that clean and functioning toilets are available at all times. Sufficient number of materials required for toilet cleaning, such as brooms, buckets detergents, gloves must be provided. 	 Cleaning and maintenance routine must be in operation and ensures that clean and functioning toilets are available at all times. Sufficient number of materials required for toilet cleaning, such as brooms, buckets, detergents, gloves must be provided.

Guiding notes on toilets

1. Toilet sufficiency

The number of toilets and urinals required for each school depends on the number of children and staff but also on when the schoolchildren and staff have access to the toilets. If access to toilets is restricted to break times, then peak demand could be high, particularly if all the classes have breaks at the same time. Urinals (for boys and girls) have been used with success in some countries. They are quicker and cheaper to build than toilets, reduce smell in toilets and they are easy for young children to use.

2. Toilet separation

Boys' and girls' (and male and female teachers') facilities should be in separate toilet blocks, or toilet areas separated by solid walls (not lightweight partitions) and should have separate entrances. Doors should reach down to floor level.

3. Access for children with disabilities

At least one toilet stall should be accessible for children with disabilities, separate for boys and girls. This includes level or ramped access, a wide door and sufficient space inside for a wheelchair user or helper to manoeuvre, and the provision of support structures such as handrails and a special toilet seat.

4. Facilities for menstrual hygiene

Appropriate facilities should be provided for menstrual hygiene for female teachers and older girls. Depending on the type of sanitary protection used and the prevailing cultural practices, facilities could include such things as a private place to wash and dry cloth, waste baskets to throw away sanitary pads, and water inside toilet stall for cleaning. Provision of such facilities encourages teachers and older girls to attend school even when they are menstruating. Toilets should be separate and provide total privacy.

5. Toilets location

In principle, toilets should be as close as possible to classrooms and playing areas, to ensure that they can be used conveniently and safely. Entrances should be positioned to provide maximum privacy in entering and leaving a toilet block. The location of toilets should also take into account the need to minimize odours (taking account of prevailing winds) and avoid contamination of water supplies and food. Particular care should be taken when locating latrines and septic tanks with soak-away pits or infiltration trenches. All latrines and infiltration systems should be located at least 30m from any groundwater source, and at least 1.5m above the groundwater table.

5. Privacy and security

To minimize the risk of violence, including sexual violence, and to ensure sufficient privacy, toilets should be carefully located, and they and their access routes should be lit if they are used at night. They should be lockable from the inside (to protect people while using them) but should be left unlocked when not in use, to ensure they are always accessible.

6. Appropriateness to local cultural and social conditions

The cultural and social conditions prevalent in the community to which the schoolchildren belong should be taken into account in the design and location of toilets. Segregation of boys' and girls' toilets is something that parents often require. Younger children may require toilets of different dimensions than the older children and adults, and specific features need to be taken into account to make the toilets easy and comfortable to use. For example, the squatting hole in a pit latrine may need to be smaller, and footrests may need to be closer together for younger children. Toilets should be safe and secure for use by children. Care must be taken to ensure that slabs are properly constructed and fitted, and that squat holes are not too large and there is no risk to children in using them.

7. Hygienic to use and easy to clean

Toilets should be designed and built so that they are hygienic to use and do not become centres for disease transmission. Surfaces that may be soiled should be of smooth, waterproof and hardwearing material that can be cleaned with water and is resistant to cleaning products. In terms of cleaning, the slab is the most important part of a toilet; it should be made of concrete or some other hardwearing and smooth material. Other parts of the toilet, such as the superstructure, can be made with cheaper local materials. The design of the toilet should include measures to minimize odours, and control the breeding of flies and mosquitoes.

8. Hand-washing facilities

A toilet is not complete without a hand-washing stand with soap, water and adequate drainage. All toilet designs should include convenient hand-washing facilities so that hand-washing after using the toilet becomes a routine activity for schoolchildren and teachers. Effective handwashing facilities may be built at little cost, with locally available materials (See 8.4 below).

9. Cleaning and maintenance routine

Toilets should be cleaned whenever they are dirty or at least once per day, with a disinfectant being used on all exposed surfaces. Strong disinfectants should not be used in large quantities, because this is unnecessary, expensive, potentially dangerous, and may damage the sanitation system. If no disinfectant is available, plain water should be used with a brush to remove visible soiling. Cleaning toilets should not be viewed as a form of punishment.

One important decision that has to be made about maintenance of facilities is whether or not schoolchildren should be responsible for cleaning toilets and other sanitary facilities. The benefits of involving schoolchildren include cost saving, encouraging schoolchildren to use facilities cleanly and demonstrating important hygiene skills. However, great care must be taken to ensure that such an arrangement works effectively in practice, without exposing schoolchildren to disease risk, placing an unfair burden on one group of children in particular, or having the task viewed as a punishment, which will cause negativity.

8.4 Hand Washing Facilities

Guideline 2: Handwashing Facilities

Sufficient, accessible, strategically located to enable hand washing to be practiced at all critical times.

Aspects	Minimum standard		National standard	
Number and Location	 Hand washing facilities must be provided at each toilet block to facilitate hand washing after going to the toilet. Hand washing facilities should be provided where children queue to collect their school meal, allowing them to wash hands before eating. 		 Hand washing facilitie at each toilet block to washing after going t Hand washing facilitie provided where child their school meal, alle hands before eating. An additional Hand w should be provided a school playground/fie students to wash har playing/sport and bef classroom 	o facilitate hand o the toilet. es should be ren queue to collect owing them to wash vashing facilities t the exit of the eld, allowing nds after
Water Quality (handwasing)	Water from an 'Improved' source. (JMP definition)		 Water from an improved additional treatment for the second second	
Water	Half day 1 litre		Half day	1.5 litre
Quantity	Full day	1.5 litre	Full day	2.5 litre
Access	Hand washing facilities should be constructed at the appropriate height for the students they serve. If there is		 Hand washing facilitie constructed at the ap the students they ser 	propriate height for

Table 18: Standards for Hand Washing Facilities (HWFs)

Hygiene	 a large age range in the school multiple facilities should be provided at different heights. Hand washing facilities should be easily accessible by disabled students Soap or ash must be provided at all handwashing facilities HWFs should enable handwashing under running water. Waste water must be managed appropriately. Drainage to a buried soakaway, or diverted to water plants/crops is recommended. 	 large age range in the school multiple facilities should be provided at different heights. Hand washing facilities should be easily accessible by disabled students Soap must be provided at each HWF. HWFs should enable handwashing under running water. Solid surfaces should have a smooth waterproof finish such as ceramic tiles/basin to facilitate easy cleaning. Waste water must be managed appropriately. Drainage to a buried soakaway, or diverted to water
Cleaning and maintenance routine.	 A cleaning and maintenance routine must be in operation, and ensures that clean and functioning handwashing facilities are available at all times. Sufficient number of materials required for cleaning, such as buckets, detergents, gloves must be provided. 	 plants/crops is recommended. A cleaning and maintenance routine must be in operation, and ensures that clean and functioning handwashing facilities are available at all times. Sufficient number of materials required for cleaning, such as buckets, detergents, gloves must be provided.

3 Guiding notes on hand washing facilities and access

1. Reliability of water points

Basic hygiene measures taken by staff and schoolchildren, handwashing in particular, should not be compromised by lack of water or lack of access to handwashing basins or suitable alternatives. If soap is not available, then schoolchildren should be encouraged to wash their hands with water and a small amount of wood ash (although this should be avoided if it is likely to block the drainage system).

2. Location of water points

Water points should be sufficiently close and at a suitable height for users to encourage them to use water comfortably and as often as required. Hand-washing points should be located next to the staff and schoolchildren's toilets and should have adequate drainage. Children should also be encouraged to wash their faces to help to prevent eye infections. A water point close to the classrooms may be useful for this.

3. Low-cost hand washing points

Simple and low-cost hand-washing points can be made in various ways, including the following:

- a. a pitcher of water and a basin (one person can pour the water for another to wash their hands; the wastewater falls into the basin);
- b. a small tank (e.g. an oil drum) fitted with a tap, set on a stand and filled using a bucket, with a small soak-away or a basin under the tap to catch the wastewater;

c. a "tippy-tap" made from a hollow gourd or plastic bottle that is hung on a rope and that pours a small stream of water when it is tipped.

These options will be suitable for the essential and minimum standards.

8.5 Drinking Water

Aspects	rds for Drinking Water Minimum standard	National standard
Quality	 Provide safe drinking-water and keep it safe until consumed. All water must be made safe by simple means such as boiling or membrane filtration, or by using simple water treatment methods, such as chlorination. Escherichia coli (E. coli) or thermotolerant coliform bacteria are not detectable in any 100ml sample at point of consumption. Once made safe the water should be stored in a suitable container with a tight fitting lid. Water should be distributed through a tap on the container. 	 Provide safe drinking-water and keep it safe until consumed. Escherichia coli (E. coli) or thermotolerant coliform bacteria are not detectable in any 100ml sample taken from a water point. The preferred means of water disinfection should be chlorination, in which case the residual chlorine should maintain from 0.2 to 0.5 mg/l to avoid recontamination. Water meets WHO guidelines for drinking-water quality for chemical and radiological parameters in drinking water. Drinking water should be free from arsenic, fluoride, nitrite/nitrate and heavy metals unless in concentrations allowable by WHO guidelines for drinking water.
Quantity	 Minimum 1 Litre safe water per student per half day. If students stay for more than 3 hours an additional 0.5 litres should be provided. 	 Two (2) litres safe water for drinking per student per day.

8.5.1 Guiding notes on drinking water quality

1. Water quality surveillance

Water quality can only be reliably determined through laboratory tests. National and local water surveillance and control systems should therefore include sampling and testing of school water supplies. In cases where the school water supply is not connected with the community water supply, separate arrangements should be made to test water samples for the vital parameters of drinking water quality. In particular, the biological quality of drinking water at school must be assessed once every year and more frequently if there is an outbreak of infectious disease.

2. Microbiological quality of drinking-water

Microbiological quality of drinking water is of overriding importance. The water supplied for drinking must be free of pathogens and protected from contamination inside the school itself. Drinking-water supplied to schools should meet standards spelt out in these guidelines and if possible the WHO drinking-water quality guidelines (Recommended Standard). In practice, this means that the water for drinking should be from a protected groundwater source and should be disinfected if it is from a surface water source. The local environmental health authority should be involved in monitoring the microbiological quality of water in the school, as part of a routine surveillance and control programme.

3. Treatment of drinking water

Disinfection with chlorine is the most appropriate way of ensuring microbiological safety of drinking water. Bleaching powder, liquid bleach, chlorine tablets and other sources of chlorine may be used, depending on local availability. To avoid over- or under-dosing, training must be given to those who chlorinate drinking water in schools. At least 30 minutes' contact time should be allowed after the chlorine is added to the water before the water is consumed, to ensure adequate disinfection. The residual chlorine (i.e. the free form of chlorine remaining in the water after the contact time) should be between 0.2 and 0.5 mg/l. Effective disinfection requires that the water has a low turbidity. Ideally, median turbidity should be below 1 nephelometric turbidity unit (NTU). Boiling is effective in killing pathogens but is environmentally unfriendly as it depletes biomass and therefore not recommended for use in schools.

4. Accessibility of drinking water

If possible, all water provided to the school should be of drinking-water quality (recommended standard). Drinking-water should be provided at clearly marked points, separately from water provided for hand-washing and other purposes, even if it is from the same supply. Drinking-water may be provided from a piped water system or via a covered container with a tap where there is no piped supply.

5. Basic quantities of drinking water required

Drinking-water should be available throughout the school day, and children encouraged to drink it, because even minor dehydration reduces children's ability to concentrate, and may damage their health in the long term. Many children walk long distances to school, often after having carried out household chores, and they may arrive at school thirsty. In schools without a safe drinking-water supply, children and staff may have to carry their drinking-water with them to school.

8.6 Water for Purposes other than Drinking

Guideline 4: Water for purposes other than drinking Water is available in sufficient quantity and appropriate quality.

Table 20: Standards for water for purposes other than drinking					
		Minimum Standard		Recommended Standard	
Availability	/	Water available through day (6-8 hrs)	out the school	Water available 24hrs/day	
Quality	Hand washing	Water from an 'Improved' source. (JMP definition)		Water from an improved additional treatment as f water.	
	Dish washing	Water from an 'Improved' source. (JMP definition)		Water from an improved additional treatment as f water.	
	Toilets	Any clean water source (improved or unimproved)		Water from an improved	Isource
	Cleaning floors	Just about any available water can be used to clean the floors. Where there is shortage of water – schools should consider re-using waste water from HWFs.		Just about any available used to clean the floors. shortage of water – scho consider re-using waste HWFs.	Where there is ools should
Quantity (litres/	Toilets	Conventional flushing toilet	10 litres	Conventional flushing toilet	20
student/		Pour-flush toilets	2.5 litres	Pour-flush toilets	5
day)		Anal washing	1.5 litres	Anal washing	3
	HWFs	Half day	1 litre	Half day	2.0 litre
		Full day/lunch at school	1.5 litre	Full day/lunch at school	2.5 litre
	Showers	20 litres		25 litres each for 20% of	f students

Table 20: Standards for water for purposes other than drinking

3 Guiding notes on water for other purposes

The guideline figures given above should be used for planning and design of water-supply systems. The actual quantities of water required will depend on a number of factors, such as weather, availability and type of water-use facilities, and local water-use practices.

Water used for laundry and cleaning floors and other surfaces need not be of such high quality as drinking-water. However, water for hand-washing, bathing and dishwashing should be of drinking-water quality, particularly if there are no specific drinking-water points. All water used for food preparation and washing utensils should be of drinking-water quality. If water below drinking-water quality is used for certain purposes, it should be in separate, clearly marked containers or distribution systems, and necessary measures should be taken to ensure that the drinking-water supply cannot be contaminated by the lower-quality supply.

6. Water for showers (optional for national standard)

The provision of showers at a school should be an option decided upon following consultation with the students, principle and PTA. It may depend on activities carried out at school and on the situation and availability of water in the surrounding communities. The recommended national standard would be to provide a minimum of one shower for girls, one for boys and one for the Teachers. Showers may be simple cubicles made from local materials, with stone or brick on the floor to provide a clean and draining surface. Users bring water to the cubicle in a bucket and use a large cup to pour it over themselves (or over the small child they are washing).

8.6 Hygiene Promotion

Guideline 5: Hygiene promotion

Correct use and maintenance of water and sanitation facilities is ensured through sustained hygiene promotion. Water and sanitation facilities are used as resources for improved hygiene behaviours.

	Minimum Standard	Recommended Standard
Curriculum	• The principles and practices of basic hygiene must be included and taught through the formal school curriculum.	• The principles and practices of basic hygiene must be included and taught through the formal school curriculum.
	• The key aspects of WASH in schools should be included in the national teacher training curriculum.	• The key aspects of WASH in schools should be included in the national teacher training curriculum.
	• Every school must have at least 2 teachers with additional training in WASH in schools and with special skills on participatory, extra-curricula hygiene promotion.	• Every school must have at least 2 teachers with additional training in WASH in schools and with special skills on participatory, extra-curricula hygiene promotion.
Health Club / Group	 Must have a child-centred club / group, such as hygiene or WASH club, dedicated to promote hygiene by acting as role models and peer educators. 	 Must have a child-centred club/ group, such as hygiene or WASH club, dedicated to promote hygiene by acting as role models and peer educators.
Participation	 Every child must participate at least once per year in child-to-child process of hygiene promotion. 	• Health club meets monthly has an evolving hygiene promotion strategy and activities plan that is fully inclusive of all the children of the school and involves activities in the surrounding communities.
		• Each child participates in at least 4 hygiene promotion activities organised by the Health club/group in the year.

Resources	• Facilities that support sound hygiene practice - including toilets, functional hand-washing stations (with soap and water), and cleaning and maintenance materials - must be available and accessible to all pupils all the time.	• Facilities that support sound hygiene practice - including toilets, functional hand-washing stations (with soap and water), and cleaning and maintenance materials - must be available and accessible to all pupils all the time.
	• Every school must receive and use at least one set of education, information and communication (EIC) materials containing key hygiene messages per year.	• Every school must receive and use at least one set of education, information and communication (EIC) materials containing key hygiene messages per year.

Guiding notes on hygiene promotion

1. Hygiene education and promotion

Hygiene education and promotion should be a core part of teacher training; refresher training should be carried out regularly to sustain knowledge and awareness. Hygiene promotion, using a variety of participatory and other learning methods, should enable schoolchildren to develop the knowledge, attitudes and life skills they need for adopting and maintaining healthy lifestyles, particularly with respect to water, sanitation and hygiene.

2. Proper use of facilities

A healthy school environment and appropriate use of water supply, sanitation and hygiene facilities should be promoted systematically through the application of clear regulations and the participation of staff, schoolchildren and parents in planning and managing facilities and the school environment.

One of the most important hygiene behaviours to promote among schoolchildren is handwashing with water and soap (or ash) – at least before eating and after using the toilet. As with other hygiene behaviours, such as correct use of toilets, this often requires helping younger schoolchildren and monitoring older ones to ensure that they perform the activity correctly and consistently.

3. Child participation

In many situations, schoolchildren may be required to carry out activities such as cleaning toilets, carrying water to or within the school, and collecting solid waste. These activities should be organized fairly and transparently (e.g. with a publicly-displayed roster that does not discriminate between boys and girls, or between schoolchildren from particular social or ethnic groups), within the limits of schoolchildren's age and ability. These activities should not be used as a punishment.

4. Role models

Peer education is one of the most effective means of changing behaviour. Children believe and practice what they hear and see from their peers. For this reason, every school should have a small group of specially trained children to influence the behaviours of others. In addition,

schoolchildren are heavily influenced by the example set by school staff – their teachers in particular – who should provide positive role models by consistently demonstrating appropriate hygiene behaviours.

5. Facilities for menstrual hygiene

Appropriate facilities should be provided for menstrual hygiene for female teachers and older girls. Depending on the type of sanitary protection used and the prevailing cultural practices, facilities could include such things as a private place to wash and dry cloth, waste baskets to throw away sanitary pads, and water inside toilet stall for cleaning. Provision of such facilities encourages teachers and older girls to attend school even when they are menstruating. Toilets should be separate and provide total privacy.

2 Standards of hygiene promotion

- 1. The principles and practices of basic hygiene must be included and taught through the formal school curriculum.
- 2. The key aspects of WASH in schools should be included in the national teacher training curriculum.
- 3. Every school must have a child-centred group, such as hygiene or WASH club, dedicated to promote hygiene by acting as role models and peer educators
- 4. Every child must participate at least once per year in child-to-child process of hygiene promotion
- 5. Every school must have at least 2 teachers with additional training in WASH in schools and with special skills on participatory, extra-curricula hygiene promotion.
- 6. Every school must receive and use at least one set of education, information and communication (EIC) materials containing key hygiene messages per year.
- 7. Facilities that support sound hygiene practice, including toilets, functional hand-washing stations (with soap and water) must be available and accessible to all pupils all the time.

8.7 Cleaning and Waste Disposal

Guideline 6: Cleaning and waste disposal The school environment is kept clean and safe

Aspects	Minimum Standard	Recommended Standard
Cleaning and Waste disposal	• WASH facilities are cleaned and inspected regularly according to an agreed schedule.	 School has a separate fund allocation for WASH facility operation and maintenance.
	 Monitoring system is in place to check condition and functionality of 	 WASH facilities are cleaned and inspected regularly according to an agreed schedule.
	the WASH facilities.	Monitoring system is in place to check condition and functionality of the WASH
	• The environment outside and inside of the school buildings are maintained free of solid waste, sharp objects and other physical hazards.	 facilities. The environment outside and inside of the school buildings are maintained free of solid waste, sharp objects and other physical hazards.
	• Solid waste is collected from classrooms, latrines, kitchens and offices daily and is disposed of safely. Soiled menstruation napkins should be burnt in an incinerator.	 Solid waste is collected from classrooms, latrines, kitchens and offices daily and is disposed of safely. Soiled menstruation napkins should be burnt in an incinerator.
	 Wastewater is disposed of quickly and safely. 	 Wastewater is disposed of quickly and safely.

Notes on cleaning and waste disposal

1. General cleaning

Classrooms and other teaching areas should be regularly cleaned to reduce dust and moulds, which contribute to infectious respiratory disease such as asthma and allergies. For cleaning of floors and walls, wet mopping with water and detergent, if available, is recommended, rather than sweeping. Floors and other washable surfaces should be made of a suitable nonporous material that is resistant to repeated washing with water and detergents. If this is not possible, then daily sweeping should be carried out.

Schoolchildren and staff should not be exposed to unnecessary risk of injury during the time they spend in the school. Injuries can be avoided by promoting proper disposal of solid waste in the school, regularly cleaning all inside and outside areas of the school, and monitoring and reporting on broken furniture, window glass and so on.

2. Solid waste management

Most solid waste produced in schools is non-hazardous and can be collected, stored if needed and then either disposed of in the communal waste-collection system, or burned or buried in a suitable location onsite. If waste is burned in or near the school grounds, this should only be undertaken when the schoolchildren are absent. Children should be taught the importance of recycling and reusing any materials that can be safely recycled or reused.

3. Wastewater disposal

Schools may produce wastewater from one or more of the following: hand-washing points, flushing toilets, showers, kitchens and laundries. If the school is connected to a properly built and functioning sewer system, this is the most appropriate wastewater disposal option. In other situations, soakaway pits or infiltration trenches should be used. These should be equipped with grease traps, which should be checked weekly, and cleaned (if necessary) to ensure that the systems operate correctly. All systems that infiltrate wastewater into the ground must be sited so as to avoid contaminating groundwater. There must be at least 1.5 m between the bottom of the infiltration system and the groundwater table, and the system should be at least 30 m from any groundwater source.

All wastewater drainage systems should be covered, to avoid the risks of disease-vector breeding and direct contamination. Wastewater (excluding grey-water from toilets) may be used to water a school garden, provided it is done in a way that does not create health risks. Local environmental health staff should be asked for advice on use of wastewater.

8.8 Food Storage and Preparation

Guideline 7: Food storage and preparation

Food for schoolchildren and staff is stored and prepared in ways that minimize the risk of disease transmission.

2 Standards of food storage and preparation

- 1. Food must be handled and prepared with utmost cleanliness, including proper hand washing before preparing food
- 2. All staff handling food in school must receive training on basic hygiene
- 3. Contact between raw foodstuffs and cooked food must be avoided
- 4. Food should be cooked thoroughly
- 5. Food must be kept at safe temperatures
- 6. Safe water and safe raw ingredients must be used in food preparation

3 Notes on food storage and preparation

1. Food handling and preparation

Food handlers and especially school cooks must wash their hands after using the toilet and whenever they start kitchen work, change tasks, or return after an interruption. Soap and water should be available at all times, close to the cooking place and the toilets, to ensure that handwashing is done conveniently by all staff working in the kitchen.

2. Food handlers training

Food handlers should be trained in basic hygiene, including the principles of WASH in school and food safety. In addition, they should be supplied with the basic items required for maintaining high standards of school food hygiene. The staff charged with food preparation and serving of food at school can be used effectively to help children observe and adapt good hygiene. Their training should therefore cover aspects of hygiene promotion among schoolchildren.

3. Kitchen staff and infectious diseases

If kitchen staff and carers have colds, influenza, throat or skin infections, diarrhoea, vomiting (or have suffered from diarrhoea and vomiting within the last 48 hours), they should not handle food. All infections should be reported promptly.

4. Food utensils

Eating utensils should be washed with hot water and detergent immediately after each use, and then air dried. The sooner utensils are cleaned the easier they are to wash. Drying cloths should not be used on utensils, as they can spread contamination. If utensil racks are required, they should be positioned where they are least likely to get contaminated. Cups, plates and pans must be stored on the racks in inverted positions.

5. Food preparation premises

Food-preparation premises should be kept very clean. Surfaces used for food preparation should be washed with detergent and safe water and then rinsed, or wiped with a clean cloth that is washed frequently. Scraps of food should be disposed of rapidly, because they are potential reservoirs for bacteria, and can attract insects and rodents. Refuse should be kept in covered bins and disposed of quickly and safely.

6. Insects and rodents

Food should be protected from insects, rodents and other animals, which frequently carry pathogenic organisms and are a potential source of contamination of food. Food must be, in particular, protected from flies by covering it properly.

7. Non-school sources of food

In many situations, schoolchildren bring food with them from home to school. In these cases, the school hygiene committee or equivalent should work with the families of the schoolchildren to ensure that food is prepared hygienically and that foods that carry a high risk if stored at ambient temperature are avoided.

Food sold to children by street vendors or in cafes may be unsafe. School authorities should seek local solutions to protect schoolchildren from disease from this source. Measures may include: discouraging children from buying from such vendors; and prohibiting vendors from selling food near schools, or encouraging and monitoring improvements in vendors' food hygiene.

8. Separating raw and cooked food

Separate equipment and utensils (e.g. knives and cutting boards) should be used for handling raw foods or they should be washed and sanitized in between use. Food should be stored in containers to avoid contact between raw and prepared foods. It is particularly important to separate raw meat, poultry and seafood from other foods.

9. Levels of cooking

All parts of foods cooked must reach 70 °C to kill dangerous micro-organisms. To ensure, soups and stews should be brought to boiling, and meat should be heated until juices are clear and there is no pink portion in the centre part of the piece. Cooked food must be reheated thoroughly to steaming hot all the way through.

10. Storage of cooked food

Cooked food should be kept hot (more than 60 $^{\circ}$ C) before serving. Cooked food and perishable food should not be left at room temperature for more than 2 hours. Cooked food should be prepared or supplied fresh each day. Cooked food should be kept covered to protect it from flies and dust.

11. Water for cooking and washing

Only safe water should be used for food preparation, hand-washing and cleaning. (For specification of safe water, see guideline 1). Fruits and vegetables should be washed with safe water. If there is any doubt about the cleanliness of raw fruit and vegetables, they should be peeled (or cooked) just before serving.

12. Non-perishable foods

Non-perishable foods should be stored safely in closed, dry, well-ventilated store, and protected from rodents and insects. They should not be stored in the same room as pesticides, disinfectants or any other toxic chemicals. Containers that have previously held toxic chemicals should not be used for storing foodstuffs. Packed food should not be used beyond its expiry date.

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9. Toilet Design Criteria and Technology Options

There are many toilet technologies and options, offering a range of advantages, but some have inherent disadvantages. Implementers must therefore make careful selection of the most appropriate technologies for school toilets. Timor-Leste shall endeavour to construct high quality school toilets that are durable, cost effective, hygienic and child-friendly. Child-friendly toilets are easy to operate and maintain and pleasant for all children to use, including the smallest children and children with disabilities. The toilets must provide privacy and security to the user, especially girls, and should not pollute the environment. In addition, the toilets should be sustainable, offering the intended benefits for a long time.

9.1 Toilet design criteria

Appropriateness of school toilet design shall be determined on the basis of a set of design criteria, outlined below. Designers, funding agencies, contractors and evaluators must be conversant with these criteria and use them as guide when making decisions.

1. Water supply

All toilets must be supplied with water. The water points shall be conveniently placed in or near the toilet. Water points must supply enough water for toilet flushing (if the chosen technology is pour flush or water closet), for anal washing and for hand washing in all types of toilet. Unless dry toilet technology is chosen, no school sanitation project shall be implemented if it does not adequately address water needs.

2. Hand washing facilities

Hand washing facilities shall be a standard design feature for all school toilets. Provision of enough facilities for hand washing should therefore be included in the cost of all school sanitation projects (see standards of hand washing facilities in section 8.4).

3. Accessibility

Facilities should be designed in such a way that they are easily accessible by children, including the little ones and those with disabilities. Minimum height of water point is 75 cm is recommended for children above third grade and 60 cm for children from grade 1-3. If cost is a concern a concrete (or similar) stand pad with 17-20 cm height can be fixed on the sides of the station for use by children in grades 1-3.

4. Control of odour

Measures must be taken to control odour or bad smell. Vents should be placed behind or on the sides of the toilets to ensure that outside air enters the toilet and circulates freely. If a VIP latrine is constructed, the right specifications for vent piping must be followed (>150mm). Proper latrine use and hygiene practices, such as regular cleaning with water and detergent and keeping the VIP squat-hole open will further reduce bad smell.

4. Control of flies and other insects

Fly screen, particularly for VIP latrines, should always be used. Further measures to control insects should be taken, such as increasing the amount of natural light into the toilet and avoidance of stagnant water in which mosquitoes breed. However, any light coming into the VIP should be only through the vent pipe so that any flies that enter the chamber will follow the light and get trapped by the fly screen installed at the higher end of the vent pipe. Drainage of the water used to clean toilet floors must be done carefully, such that no pools of stagnant water form in or around the toilet.

5. Prevention of land and water pollution

Toilet design must be done carefully where the water table is close to the surface. In particular, the septic tank should be secured with water tight material. Sludge pit with water tight concrete with good design of absorption pit should be considered. VIP and other dry toilet choices are appropriate only in the areas where the ground water table is deep. Any design of toilets and septic tank should be minimum 30 meters away from such ground water sources as dug wells.

6. Improvement of illumination

Natural light reduces microbial growth in the toilet and also increases safety. Measures should therefore be taken to allow as much natural light into the toilet as possible. If natural light is insufficient or if the toilets are intended for night time use, artificial lighting should be included. Internal walls should be painted with light colours to enhance the light in the toilet room. However, the norms of toilet illumination do not apply to VIP toilets (See item number 4 above).

7. Enhanced accessibility

Ideally, toilets should be under the same roof with the school building. But this should not be the case for dry pit or VIP latrines, which present the problem of odour. If the toilet block is detached from the school building, provision should be made for using such toilets during rain. A concrete pathway and roof above it will help, but this often more costly than constructing the latrine as part of school building. Where the initial design of the school building did not include toilet, modifications can be made by constructing pour flush toilets attached to the wall of the building or as close as possible to it.

8. Enhanced sustainability

a) Waste exhaustion

Regular septic tank dredging shall be required when the septic tank fills. Toilet designers should therefore plan with this in mind. In the more accessible areas, septic tanks shall be emptied by a motorised waste exhauster service provider. Manual dredging shall be done where motorised exhauster service is not available. To avoid exposing children to unnecessary odour and possible infections, toilet exhaustion shall be done during the school holidays or weekends.

b) Quality materials

All materials purchased for construction and the finishing of school toilets must be of good quality, chosen for durability. Quality should be considered in selecting such items as the door's

hardware, knobs, toilet bowls and water taps to avoid frequent replacements. The initial investment in quality items is higher than purchase of cheaper alternatives but in the long run is more cost effective.

9. Improvement of hygiene

The latrine floor or slab must be easy to wash using water and detergent. A good watertight concrete floor is considered the cheapest option. This allows for finishing with other materials, such as clay tiles, if resources are available.

10. Management of drainage and wastewater

Wastewater from the pour flush latrine and hand wash station should be drained to a soak pit/absorbing well through sufficiently sized PVC pipe. This will protect ground water and also avoid stagnant pools of wastewater water in which vermin and insects breed. Where soil conditions do not allow for absorption well, an absorption trench should be the option with perforated pipes embedded in 60 - 70 cm of trenches filled with sand and gravel. If dry pit or VIP latrine is converted to pour flush latrine, use of floor drain with water trap is more economical than a common wastewater drainage system.

11. Privacy and gender sensitivity

A child friendly toilet must offer both privacy and security to the user, especially to female users. The following criteria shall be taken into consideration for this purpose.

a) Toilets have complete visual and sound separation

When the toilets for girls and boys are in the same block, a separation wall between the two should reach the roof structure to avoid any visual contact between the two sexes, and the separating wall should prevent transmission of sound.

b) Separate entrances

If the boys and girls toilets are in the same block, the two sexes should never use the same entrance into the block. It is recommended that the boys and girls entrances be located in the opposite sides of the block and be clearly marked.

c) Doors should be lockable

Toilet doors should be lockable. Some designs allow for a main entrance door that can be locked from the outside. The purpose of this door is to prevent outsiders from misusing the toilet when the school is out of session. The doors to individual toilet stalls may or may not be lockable from the outside, but must be lockable from the inside. Door lock should be easy to close and open during the school hours. Sliding bolt with hasp for padlock is a good alternative, but this must be of good, durable quality. It is recommended that doors have both a lock and the sliding bolt for sustainability reasons. Sliding bolt with hasp for padlock is easy for school to buy a new padlock when the padlock is damaged. For internal locking a simple good quality of sliding bolt is needed.

12. Minimum design dimensions per stall

For pour flush (squatting type) toilet or VIP latrine

•	Length	=	135 cm
•	Width	=	120- 135 cm
•	Height	=	220 cm
•	Door width	=	60 cm* (80 cm for use by disabled children)

For the girls' menstrual toilet, the width and the length should be larger as it should be equipped with shelves and rubbish bin.

For flush latrine (water closet) toilet:

•	Length	=	125- 145cm
•	Width	=	80 – 90 cm
•	Door	=	60 cm width open outward

Special design for disabled (with seating type of toilet bowl):

- Length 135-145
- Width 90 cm
- Door 80 cm width open outward
- To be equipped with hand rail made of steel 70- 75 cm high from floor fixed on the wall.

9.2 Criteria for location of facilities

Apart from the geographic conditions, there are some issues that can be useful to discuss with children and teachers when selecting the location for toilets and urinals:

Security: Children must feel safe and comfortable when visiting the toilets or water points. They must not feel that they will be teased by other children or molested.

Accessibility: Children must be able to go to the toilets/urinals and taps even after heavy rains.

Privacy: Older girls in particular need privacy when entering and using facilities.

Convenience: Hand-washing facilities should be located near toilets so that children will be more likely to wash hands after defecating.

Pollution: Toilets must be located away from and downhill from drinking water facilities. A minimum of 30 metres from the water point is recommended.

Vandalism: Often outsiders use school facilities after school hours. To deal with this, one option is to lock the facilities. Another option is to involve the nearby households, who presumably are the main users and take insist they too care of the facilities.

9.3 Recommended toilet designs

Four types of school toilet designs are recommended. Detailed design specifications for each of them, along with cost estimates, are annexed to these guidelines.

- 1. School toilet block prototype designed by IFU (8-compartment pour flush toilet with a septic tank and a soak pit completed with hand washing basin)
- 2. School toilet block prototype 1 designed by UNICEF for filial schools with water availability challenges (3-compartment VIP latrine) with hand washing facilities
- 3. School toilet block prototype 2 designed by UNICEF for filial schools (3-compartment pour flush toilet with standard IFU's septic tank and hand washing basin)
- 4. School toilet block prototype 3 designed by UNICEF for filial schools (6-compartment pour flush toilet with standard IFU's septic tank and hand washing basin).

9.4 Alternate pit latrine (a backup option)

Reliability of piped water supply in schools is a critical issue in Timor Leste. It is common to have no running water in schools for several days or weeks every month. While attempts should be made to improve the reliability and sustainability of piped water in schools but there is no quick fix to this problem as school water is often linked to community water networks and there are number of challenges to O&M that needs overall system strengthening.

In order to ensure that children are not deprived from using toilets in the absence of water for flushing (or pour flush), it is recommended that, where appropriate, rural schools should have one two-cabin VIP latrine (one each for boys and girls).

References

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- Timor-Leste Water Supply Guidelines, Sections 1, Principles, Standards and Criteria, Minitério Das Infra-Estruturas, Secretário De Estado Da Electricidade Água E Ubanização Direcção Nacional De Serviços De Água E Seneamento, Revision 2010.
- 4. UNICEF water, sanitation and hygiene strategies for 2006 2015
- 5. Timor-Leste National Basic Sanitation Policy Final Draft, Oct. 2011
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- 10. Towards Effective Programming for WASH in Schools, Technical Paper Series 48 IRC-UNICEF, 2007.
- 11. Water Sanitation and Hygiene for Children in Emergencies: A guidebook for Teachers, UNICEF, November 2011.
- Joint Publication 8: The Hygiene Improvement Framework A Comprehensive Approach for Preventing Childhood Diarrhea. EHP, UNICEF/WES, USAID, World Bank/WSP, WSSCC, May 2004

ANNEX I EXAMPLE OF TOILET DESIGN Type of Toilet with three cabins (Two cabins with squat bowl type for separate girls and boys) – One sitting type for teachers and deficient)*

Minimum Guidelines for Basic School Filial cycle 1 with 50 – 100 students



* Complete design and BoQ can be obtained from National Directorate of Infrastructure Educative

Type of flush toilet with six cabins (four cabins with squat type bowl for separate girls and boys including urinal/-two type separate for teachers and deficient including menstrual facilities for girls and female teachers)*



Recommended standard for Basic School cycle 1, 2 with 250 – 300 students

* Complete design and BoQ can be obtained from National Directorate of Infrastructure Educative

Type of flush toilet with eight cabins (six cabins with squat type bowl for separate girls and boys including urinal /- two separate cabins with sitting type bowls for teacher and deficient for male and female including menstrual facilities for girls and female teacher)*

Recommended Standard for Basic School cycle 1, 2 with total students of 300-350



* Complete design and BoQ can be obtained from National Directorate of Infrastructure Educative

Type of flush toilet with eight cabins for separate girls and boys Recommended standard for Basic School cycle 1, 2 with total students of 250 (Design Layaout)*



* Complete design and BoQ can be obtained from National Directorate of Infrastructure Educative

Type of flush toilet with eight cabins separate for girls and boys Recommended standard for Basic School cycle 1, 2 with total students of 250-300 (Elevation View)*



* * Complete design and BoQ can be obtained from National Directorate of Infrastructure Educative

Example 1- Design School Building with toilet attached – with disability access



Example 2- Design School building with attached toilet – with disability access and menstrual as well as urinal facilities.





Example 3- Design school building with attached toilet – with disability access and facilities for menstrual and urinal.

Example 4- Design school building with attached toilet – with disability access and facilities for menstrual and urinal.



Example 5- Design school building with attached toilet – with disability access and facilities for menstrual and urinal.



ANNEX II

EXAMPLE OF HYGIENE PROMOTION MATERIALS

HYGIENE PROMOTION MATERIALS

Dirty Dilemma

Poor waste disposal at your school may lead to still water due to blocked drains. Still water encourages insect breeding and attracts rodents, which can help spread diseases.

Sanitary Solution

If waste in your school is mainly made up of food and animal products, then a compost heap is your best option for waste disposal.



But if trash in your school includes plastic and tin waste, you may also need a recycling system for the different types of waste.

Remember:

When you keep your school clean, you are helping to protect the environment.





For more Information, please contact: UNICEF ESARD Saik Education and Gender Equality (BEGE) Communication for Development (C4D) Webs; Sentiation and Environmental Hygens (WASH) Dit: +254-026-762-2207/2215 Email: joieng@unicef.org / jugois@unicef.org

Sara A GUIDE TO SCHOOL SANITATION

Toilet Tips

Always poop in a toilet. If you poop anywhere other than a toilet, flies can easily walk on the poop and spread invisible germs to your food and water, making you sick! It is also important to keep the toilets you use clean. If you don't, they become so dirty that they are no longer used.



Here are a few tips to make sure the toilets in your school stay clean.

•

Good sanitation is important not

just at home but

also in school!

Always urinate/poop inside the hole.
Never leave paper outside the latrine.



It is important that boys and girls have separate toilets for:







Fase liman ho sabaun:

- Antes atu han no prepara hahan
- Depois sintina no kaer foer





ITA NIA LIMAN IHA MIKROBIUS !





Hodi labele kona tee-been, matan moras, mear, ita tenki fase liman ho sabaun.

Depois

Australian

AID

Bainhira?









Oinsa?



sulin.

1. Habokon liman ho be



man no fase liman liu segundo 20. (Liman laran, kotuk, fuan leet, no fuan kukun)

3. Fase liman didiak ho



unicef 🧶

4. Hamaran liman ho tisu ka toalla.



stiker