

Developing Guidelines for Water, Sanitation and Hygiene Promotion in Schools

*Report of a Regional Consultation
Chiang Mai, Thailand, 28-30 September 2009*



SEA-EH-566
Distribution: General

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Printed in India

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1. Background

The environment in which children live invariably influences them at all stages of their lives, before birth and in their homes, schools and communities. More than 1.4 billion children (5-14 years of age) live in developing countries facing many of the biggest environmental challenges. Amongst others, environmental factors such as availability of safe water sources for drinking, bathing and washing, and sanitary facilities affect the health and wellbeing of children and adolescents. Diarrhoeal disease alone accounts for 17% of all deaths in the developing world. Nearly 94% of the burden of diarrhoeal disease is attributable to the environment, and associated with risk factors such as unsafe drinking water, lack of sanitation and poor hygiene. Helminth diseases, which are caused by intestinal worms found in soil and vegetables, are among the common health problems of school-age children in developing countries.

Unsafe schools pose risks for the health and development of children and adolescents. Some conditions, such as the lack of proper sanitary facilities or latrines for girls, discourage young women from attending school. In developing countries, lack of water often forces people, usually women and young girls to spend a lot of time fetching water, often at great distances from the home, or to extract water from alternative, unsafe sources. Lack of access to safe water and sanitation facilities has important implications for the education of children, especially girls since they bear the major burden of carrying the water home from distant sources, preventing them from attending school. In developing countries, lack of sanitation facilities is a major reason for girls dropping out of school.

The most important source of water contamination in developing countries is human faeces, due to the lack of adequate sanitation facilities. Today, about 2.4 billion people do not have access to even a simple latrine. As a result, human waste heavily pollutes many rivers and lakes in developing countries. Industries without proper waste treatment systems, non-functioning sewage treatment systems, hazardous materials from various settings such as health care, schools, homes and the excessive use of pesticides and fertilizers for agricultural and domestic purposes, all release

toxic substances into the air, food or water. Pesticides are integral to agriculture and vector-control programmes worldwide, yet children are uniquely susceptible to the health threats that they pose. Once released in the environment, pesticides can pollute rivers, groundwater, air, soil, and food.

More than 80% of the Region's population has access to an improved drinking water supply source and about 56% has access to improved sanitary facilities. However, there is no clear information on the situation of water supply and sanitation in schools in the Region. The aggregated figures from seven countries in the Region showed that 70% of schools have water supply facilities and 64% have sanitary facilities.

The school setting provides several opportunities for implementing water, sanitation and hygiene promotion. First, the school pupils are considered a captive population ready to learn as well as apply the new knowledge to promote health. The school setting has teachers and other staff who also facilitate learning and positive behaviours thereby making the school a place to shape good practices for the future. The school's infrastructure includes water and sanitary services which are an integral part of the daily life of the student. These structures should meet specific standards in order to benefit the pupils and staff. Specifically, the water quality and quantity need to be as per national standards and so should the toilets that pupils use in school.

Water, sanitation and hygiene issues in school bring together several key government ministries to deliver services. In the Region, the Ministry of Education is the custodian of school children but the Ministry of Water or infrastructure is responsible for providing water and setting toilets in schools. In a few countries the Ministry of Health is responsible for providing water and sanitation in schools. Generally, the Ministry of Health is responsible for providing information and education as well as treatment of diseases associated with water and sanitation as well as monitoring drinking water quality in schools. The provision of water, sanitation and hygiene therefore is multisectoral and inter-disciplinary and involves the community as well.

Most countries in the Region do not have comprehensive guidelines for establishing and maintaining water supply and sanitation facilities, and hygiene promotion in schools. While all 11 Member countries in the Region are implementing the seven elements of the health promoting schools,

Maldives is the only country that has established comprehensive guidelines for water, sanitation and hygiene promotion in schools which is currently being tested. There are also no standards for water quality, sanitation and hygiene education. While countries have taken the initiative to provide the education through the school health programme, the lack of clear guidance (standards) in establishing water, sanitation and hygiene promotion in schools retards the progress of implementing the school health promotion activities in most countries of the Region.

Lack of gender-friendly, child-friendly, disabled-friendly and environmental-friendly (in relation to climate change) technologies and facilities has been reported as an emerging challenge. Therefore, there is a need to share knowledge and ideas among the Member countries and within countries.

Management of water quality to ensure safety of drinking water has been identified as another challenge in schools and in other settings in the Region. Lack of capacity of teachers to promote sanitation and hygiene and low awareness among students are some of the constraints faced by a few countries. Inadequate water and sanitation facilities and poor operation and maintenance of existing infrastructure are problems faced by some other countries.

School children in the South-East Asia Region are faced with several health risks due to the problems highlighted earlier. In order to address the issues in an integrated manner it is very useful to develop guidelines for each country based on local needs. To support countries in developing such guidelines, this regional consultation was organized.

2. Objectives of the consultation

Ms. Payden, Regional Adviser, WSH, WHO/SEARO highlighted the purpose, objectives, and expected outcome of the consultation. She said that the main purpose was to set the stage for developing comprehensive guidelines for water, sanitation and hygiene in schools for all the SEAR Member countries in the Region.

Specific objectives

- (1) To review regional health status including water, sanitation and hygiene in schools.
- (2) To share country experiences and recent developments in water, sanitation and hygiene.
- (3) To identify required educational and infrastructural elements for establishing water, sanitation and hygiene in schools.
- (4) To prepare draft guidelines for water, sanitation and hygiene in schools together with clear-cut priority action points.

Expected outcomes

- (1) Shared experiences and reviewed situations of water, sanitation and hygiene activities in the Member countries.
- (2) Identified needs and priority areas of establishing and improving water, sanitation and hygiene in schools.
- (3) Developed a skeletal framework of national guidelines on water, sanitation and hygiene in schools.

3. Consultation sessions

The regional consultation took place in Chiangmai, Thailand from 28-30 September 2009. It was jointly organized by the Ministry of Public Health, Thailand and WHO/SEARO. The local organizer in Chiangmai was the Inter-country Centre for Oral Health, a WHO Collaborating Centre for Oral Health. A total of 33 participants consisting of school health programme managers, sanitary engineers, public health officers from Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste attended the consultation. It was also attended by regional representatives from UNESCO and IFRC. (Annex II-Agenda and Annex III-list of participants).

3.1 Inaugural session

The three-day consultation was inaugurated on 28 September 2009 by Dr. Suvaj Siasiriwattana, Deputy Director General, Department of Health, Ministry of Public Health, Thailand. Ms. Payden, Regional Adviser, WSH,

WHO/SEARO, welcomed participants from 10 Member countries and observers from IFRC and UNESCO, and conveyed the greetings from the Regional Director, Dr Samlee Plianbangchang. Since the Regional Director was unable to attend, Ms. Payden delivered his message.

The Regional Director emphasized the urgent need to intensify concerted efforts in promoting water, sanitation and hygiene programmes at homes, schools and communities in the Region given the enormous opportunities for improvement, and its greater impact on the health and wellbeing of the people particularly children.

Children face a higher risk of getting exposed to pathogens and pollutants and hence a greater corresponding lifetime risk. A large proportion of children living in our Region face several potential environmental risks such as unsafe water, unhygienic living conditions, lack of proper latrines etc. Diarrhoea, cholera, typhoid and dysentery are mostly associated with conditions related to water, hygiene and sanitation. Despite improved access to safe drinking water and sanitation in our Region, about 88% of deaths from diarrhoea are still due to unsafe drinking water, inadequate availability of water for hygiene and lack of access to sanitation, the Regional Director said.

The school setting provides a good opportunity for supporting water, sanitation and hygiene promotion. The students are vibrant and eager to learn new knowledge and skills, and the school has a supportive environment to inculcate good practices. The infrastructure for water and sanitary services in schools, which support the daily life of the school children, should meet international scientific standards in order to benefit both students and staff. Water, sanitation and hygiene issues in school bring together several key government ministries to deliver services. The ministries of education, health, infrastructure and others are responsible for providing clean water in schools. Thus, the provision of water, sanitation and hygiene requires a multi-sectoral and multi-disciplinary approach.

To effectively implement water, sanitation and hygiene promotion interventions in schools, there is an urgent need for a structured guideline that will recommend the implementation of uniform standards for health promotion activities, infrastructure development and provision of required water quality and quantity. So far, Maldives is the only country in the Region that has developed guidelines for water, sanitation and hygiene promotion in schools. Therefore, it is important for the rest of the Member

countries to develop the guidelines so as to collectively attain the goals of the education, health and other sectors.

Relevant government ministries and organizations involved in advancing the health and well-being of students are encouraged to adopt the guidelines to be developed at this consultation to improve the health and educational outcomes of young people.

The message from the Regional Director concluded by urging all Member countries in the South-East Asia Region to ensure the following mechanisms are in place in order to intensify the promotion of water, sanitation and hygiene in schools:

- Continuous active commitment and demonstrable support by policy makers and relevant concerned organizations to the ongoing implementation of the water, sanitation and hygiene promotion guidelines in schools including monitoring and evaluation.
- Sustainable partnerships for water, sanitation and hygiene promotion in schools exist and are maintained both within and outside the schools.
- Resource mobilization, disbursements and accountability are in place, and that, specifically with regard to human capacity and financial resources to implement the required actions identified in the guidelines are available in a timely manner.

For full text, please see Annex 1.

The Deputy Director-General, Department of Health, Ministry of Public Health, Thailand, delivered the inaugural address and conveyed the greetings and wishes of the Director-General who could not attend. He said that adequate provision of safe water, sanitation and hygiene in schools will have far-reaching effects on students and parents in particular and communities in general. In addition to the prevention of water-, sanitation- and hygiene-related diseases, it would enhance the learning abilities of children, bring about gender equity, and wider awareness and participation of members of the community in water, sanitation and hygiene promotion. The Ministry of Public Health piloted the Health Promoting School (HPS) Approach in Thailand a few years ago and now all schools are rapidly adopting this approach to reach out to, and improve health and wellbeing

of school children. Water, sanitation and hygiene promotion is an integral part of the health promoting school approach. He also said that health promoting schools are doing well, and their performances are measured against the set of 10 components of HPS. Based on the extent to which these 10 components are complied with, schools are awarded bronze, silver and gold medals. The awareness of health promotion including practices in water, sanitation and hygiene among the students has improved significantly, and would contribute towards better health and happiness of the community.

He thanked WHO/SEARO for organizing the consultation to further improve the current situation of water, sanitation and hygiene practices in schools through the development and implementation of proposed guidelines that will help the Member countries to maintain and sustain quality WSH programmes uniformly throughout the Region.

3.2 Introduction of participants

The names of participants were read out. A total of 33 participants from 10 Member countries attended the consultation.

3.3 Regional overview of health promotion in schools – Dr Neena Raina

Dr Neena Raina, Regional Adviser, Child and Adolescent Health, WHO/SEARO, presented the regional overview of educational and health status of adolescents; health promoting school approach to reach out to a wider group of children and adolescents, and the role of the health sector in promoting health in the school setting. She said that adolescents comprise nearly one fifth of the world's population, and around 350 million adolescents live in countries of the Region. While Bangladesh has the lowest literacy rate among youth, it was above 95% in Maldives, Thailand, Indonesia and Sri Lanka. Poverty, socio-economic factors, illiteracy, lack of access to health care and information, unsanitary environment etc. invariably affect the health and wellbeing of adolescents. An estimated 1.7 million adolescents die worldwide from various causes which were easily preventable or treatable. Most of the health needs of adolescents go unattended and unfulfilled. Children and adolescents also face substantial

problems related to their environment particularly with regard to water, sanitation and hygiene.

Schools can make a significant contribution to a student's health and well-being. Health promoting schools have considerable potential to improve the health of the school community through classroom or out-of-class health promotion activities. Provision of tools and knowledge to school children will not only help in promoting healthy practices among themselves but also act as change agents in the communities. The benefits may include reduced risk of diseases such as worm

IMPORTANCE OF ADEQUATE WATER, SANITATION AND HYGIENE IN SCHOOLS

- **Disease prevention** – diarrhoea, malaria, worm infestation, dengue, schistosomiasis.
- **Learning** – reduce school absentees, improved learning and better performance.
- **Gender** – reduce girls missing classes or dropping out of school.
- **Families and communities** – reduce burden of child sickness; students as change agents can help promote health in the communities.
- **Life-long skills** – knowledge and practice can lead to long-term healthy behaviour.

infestation and diarrhoea, improved school performance, increased enrolment for girls and reduction of other health-related hazards. The development partners (UNICEF/WHO/UNFPA/WB) have a big role to play in health sector response to health promotion in schools and communities through an integrated approach to resource mobilization, programme planning, implementation and monitoring.

3.4 Regional overview of water, sanitation and hygiene (WSH) in schools – Ms Payden

In her presentation, Ms. Payden, Regional Adviser, WSH/SEARO, said that though 62% of the global population has access to improved sanitation, the progress towards meeting the MDG target remained slow with a mere increase of 8% from 1990. Similarly, in the case of open defecation, it decreased from 24% in 1990 to 18% in 2006. But, in contrast to sanitation, the world is on track to meet the drinking water MDG target with 87% of the global population having access to improved drinking water sources. However, access to improved sanitation in the South-East Asia Region

remains low at 56% while access to drinking water is at 84%. It has been found that the urban populations have greater access to improved water supply and sanitation than rural populations which is an indication of inequity.

According to a rapid assessment Member countries in the Region have 15% to 32% of children attending schools. In Maldives, over 90% of schools have water and sanitation coverage while Nepal and Timor-Leste have below 50% coverage. Some common diseases among children in schools were acute respiratory infection, diarrhoeal diseases, skin infection, worm infestations, scabies and dengue. These diseases are easily preventable through increased access to safe drinking water, proper sanitation and hygiene practices. It is proven that safe water supply, adequate sanitation, and hygiene can reduce diarrhoeal disease by 391 million cases per year. WHO has estimated that 94% of diarrhoeal cases are preventable through modifications to the environment, including interventions to increase the availability of clean water, and to improve sanitation and hygiene. There is also documentary evidence that diarrhoeal episodes are reduced by 25% through improving water supply, 32% by sanitation, 45% through hand washing, 39% by household water treatment and safe storage. Therefore, promotion of WSH in schools is not only about reduction of water and environmental-related morbidities amongst school children but also a meaningful investment for future generations.

Water and sanitation issues in schools in SEAR

- Provision of safe water supply and adequate sanitary facilities to all schools.
- Sustained operation and maintenance of water and sanitation systems.
- Water quality management.
- Solid waste management.
- Poor hygiene (menstrual hygiene).
- Lack of trained teachers on hygiene promotion and sanitation especially in rural schools.
- Lack of data on water and sanitation facilities in schools.

- Lack of child-friendly, gender-friendly, disabled-friendly facilities.

Challenges in WSH in schools

- Intersectoral collaboration is an important issue where most countries have more than two ministries involved in implementing activities related to water, sanitation and hygiene in schools. It is often difficult to bring together all players or sectors for the much required synergy and collaboration because of the weak sense of ownership among them.
- Ministries have given low priority to promotion of WSH in schools which has led to inadequacy of funds to support WSH activities.
- The bigger concern is of the impact of climate change on water and sanitation systems, which, in turn, affect the quantity and quality of water consumption, and sanitation and hygiene practices in schools and at homes.
- It is difficult to get sustained commitment and comprehensible support from the key players in promoting WSH in schools. In the South-East Asia Region, the data collected through a questionnaire showed that Timor-Leste has a low commitment from government, teachers and NGOs, while Bhutan and Thailand seemed to enjoy high commitment from the key partners and players.

Country	Commitment from Govt.	Commitment of teachers	Commitment of NGOs
Bangladesh	average	average	average
Bhutan	high	high	NA
Indonesia	low	average	high
Maldives	high	low	very low
Myanmar	high	average	average
Nepal	average	high	average
Sri Lanka	average	average	average
Thailand	high	high	average
Timor-Leste	low	very low	low

3.5 Country presentations: exchange of national experiences from ministries of health, education and water

Bangladesh

Despite a high percentage of its population using safe water (>95%) and with good access to improved sanitation (>75%), Bangladesh reports high morbidity due to acute respiratory infection, diarrhoea, malaria and worm infestation among children including students. In order to reduce morbidity among students, the Ministry of Health & Family Welfare has instituted school health clinics in 20 districts to provide curative and preventive health services to students. The field health workers in communities also cover all primary schools, and provide students de-worming tablets twice a year, and hold periodic health education and promotion sessions. Both ministries of health and education distribute first-aid-kits, health cards and weighing scales to schools. Each school has at least one tubewell for drinking water and one sanitary latrine. In order to promote the personal hygiene of students, toothbrushes and toothpaste and nail cutters are supplied to primary schools. Observation of Global Hand Washing Day is taken as a priority activity in schools. Considering capacity building as a crucial element of health promotion in schools, many teachers are trained in health promotion through an initiative called "better health, better education" supported by the government, UNICEF, Save the Children, WFP and some NGOs. However, the government increasingly faces the problem of poor maintenance of water supply systems and latrines in schools due to which most of them become non-functional. Thus, ownership and sustainability is a big issue concerning the implementation of WSH programmes in schools.

Bhutan

Realizing the centrality of water and sanitation in the socio-economic development process of the country since the 1970s, Bhutan has achieved a coverage of nearly 90% for drinking water, and over 90% with regard to sanitary latrines. A recent assessment (2009) showed that water supply coverage of schools was 95.4% while sanitation coverage was 97%. Since schools are considered as the hub of health promotion activities, every school has a designated health coordinator to oversee the health and hygiene of students. The programme, "safe and supportive school environment", mandates safe drinking water and sanitation for schools.

Students observe Water and Hand Washing Days, and actively participate in health and hygiene promotion activities. Besides health promotion, other services like de-worming, vitamin A supplement, iron supplement, dental screening, visual screening, and health counseling are provided periodically through schools. The ministries of health and education are the lead agencies in WSH promotion in schools. Yet, Bhutan continues to face the challenge of achieving universal coverage for water supply and sanitation in schools. The major problem is that a large proportion of school water supply schemes and latrines are non-functional due to poor maintenance and support.

India

India presents a unique experience because of its sheer size, dense population, and extreme diversity in culture, social structure, religion, economy etc. Similarly, diversity is also apparent in school structure, health facilities, water consumption, sanitation and hygiene. Safe drinking water is a basic element of primary health care, and providing it to children is important to raise a healthy generation. So, the Ministry of Rural Development, has specifically prepared a plan for school sanitation and hygiene education (SSHE) in India with the goal to attain 100% sanitation coverage in schools, and promote the practice of good hygiene behaviour among students. Some major components of SSHE are water supply points, construction of toilet complexes emphasizing on girl's latrines, drainage systems and garbage pits. Concerted efforts by the government and collaborating partners have resulted in a visible decrease in epidemics and water-borne diseases among children in the last decade. And to further improve the health and wellbeing of children, the focus is on the inculcation of hygienic behaviour in the early years of childhood for good health, and the provision of better sanitation facilities to improve educational prospects of children, especially the girl child. Because of sheer diversity, there are several challenges in promotion of WSH in schools. These include:

- (1) Inadequate number of toilets and hand washing facilities.
- (2) Inadequate funds as well as problems with low utilization of funds.
- (3) Poor quality of design and construction and poor maintenance.

- (4) Inadequate focus on child-friendly designs, toilets for challenged children and gender-sensitive designs.
- (5) Imbalanced or inconsistent implementation and monitoring of sanitation programmes in different states/districts.

Indonesia

Indonesia has 41 million students in 33 provinces spread across 17 000 islands. The country also faces a daunting geographic challenge of increasing access of school children to drinking water and sanitation. Both the government and the private sector are involved in delivering drinking water and sanitation to the public including schools. The sanitation coverage in schools is around 90% in urban and 77% in rural areas. There is no information on drinking water coverage. Some common water supply technologies used in schools are wells, manual pump wells and rainwater harvesting. Most schools have pit latrines but students still practice open defecation.

The main strategies to promote WSH in schools are advocacy and building partnerships among stakeholders; developing guidelines on health promotion for schools; dissemination of IEC materials; capacity building and monitoring. The ministries of public works, health, education, and religion are the key sectors responsible for water and sanitation promotion, while UNICEF, USAID, ADB and the World Bank are the major partners. The major challenges are: inadequate funds; geographical difficulties; and a very large number of schools and students. However, there are many opportunities to promote WSH in schools such as: integrated environmental health curriculum; supportive government policies; and strong commitment of NGOs, development partners and the local community.

Maldives

Schools in Maldives receive drinking water mainly from two sources - rain water and desalinated water. While 97% of schools are provided with safe drinking water, coverage with regard to sanitation facilities is 95%. The ministries of education, finance and housing, transport and environment are responsible for providing water and sanitation facilities in schools, while the ministries of health and education look after school health promotion

activities. Since the top three diseases in schools are acute respiratory infections, fever and diarrhoea, the government is giving high priority and full support to promote health and hygiene in schools. Currently, there are two important WSH-related documents being piloted in schools - Guide for Water, Sanitation and Hygiene Education and the Training Manual on Water, Sanitation and Environmental Hygiene Practice in schools. These documents, once pilot testing is over, will form the basis and the major thrust for health promotion in schools. Besides, there are also a few health promoting materials being distributed to schools such as a story book on WSH practices called "Kilaa Hāndi", the Hygiene Promotion Campaign Booklet and the WSH Snake & Ladder Game for students.

Poor maintenance, limited funds, inadequate WSH facilities, poor monitoring and supervision are some of the major challenges that the government is facing in WSH promotion in schools. In addition, there is poor support and low commitment from school teachers, the community and NGOs.

Myanmar

The coverage for drinking water and sanitation in schools is 80%, and 77% respectively. The government's aim is to achieve universal coverage. The ministries of health and education are responsible for providing water and sanitation facilities to schools as well as for the promotion of hygiene among students. These ministries also support the school health programme mainly through capacity building, awareness creation, provision of health services, information dissemination, and monitoring of WSH activities. Schools are supplied with hygiene promotion kits, first aid kits, and communication materials. The primary students are de-wormed twice a year, and the school health week event is promoted in all the schools drawing attention on maintaining a clean environment and encouraging hygienic behaviour among students. The Ministry of Education also recently initiated the School Sanitation and Hygiene Education (SSHE) programme in selected schools in the country. This basically focuses on lifeskill-based education, early care and childhood development and the school environment. This programme mandates safe drinking water for every school and one sanitary latrine for every 50 students (separate for boys and girls) with water available to wash hands. The major challenge for the ministry is to expand this programme to other townships and states.

However, promotion of water, sanitation and hygiene in schools is not considered a priority issue as compared to disease control activities. That is why only limited numbers of teachers are trained on school health due to inadequate allocation of training budget, and those trained are overloaded with work and responsibilities. The geographical barriers also make monitoring of school health activities as well as distribution of IEC materials equally difficult.

Nepal

Nepal's rugged terrain has always posed an enormous challenge to government efforts in increasing access to safe water and sanitation facilities to schools. The drinking water and sanitation coverage in schools is low in Nepal. Only 40% of schools have drinking water supply, and 41% have toilet facilities. However, only two thirds of schools have sufficient facilities, while only one fourth have separate facilities for girls and boys. Undeterred by the constraints, the government recently allocated over Rs 670 million to install gender-friendly water and sanitation facilities in 75 districts. The ministries of education, physical planning & works, health and population are the major sectors supporting WSH in schools. The community-level stakeholders in maintaining the WSH facilities are the sanitation steering committees, school management committees, and parent teachers associations.

The SSHE programme supports the training of teachers, WSH-related committee members, and in organizing community-level awareness campaigns. The School-Led Total Sanitation (SLTS) programme started in 2006 declared over 300 school catchment areas as Open Defecation Free (ODF), and actively promoted advocacy, social mobilization and toilet installation at household level.

The problem of inadequate water supply and sanitation facilities in schools is compounded by limited resources to implement school-based water, hygiene and sanitation activities. This requires immediate attention of the government and stakeholders. The Ministry of Education has increased budgetary allocation to sanitation and hygiene promotion while, at the same time, joint efforts among stakeholders partnering in WSH activities in schools are growing.

Sri Lanka

About one third of Sri Lankan households have no access to sanitation, and about one quarter have no access to safe drinking water. A large percentage of Sri Lankan children suffer from diarrhoeal diseases. Students constitute around 20% of the population, and a high percentage of Sri Lanka's 10,000 schools do not have adequate water and sanitation facilities.

The ministries of education and health have jointly supported the school health programme with the aim to keep children healthy and make them capable of promoting their own health. Schools are provided with skills-based health education, counseling and basic health services. The emphasis of this programme is to maintain a safe school environment, build healthy canteens, provide water and sanitation facilities, and promote health and hygiene in schools. All health-related activities in schools including water and sanitation are managed by the school health advisory committee and the preventive health care team.

Sri Lanka has a free health and education system which makes the promotion of WSH in schools doable and achievable. Yet, there are several issues which need to be addressed such as inter-sectoral coordination, resource allocation for WSH, as well as sustainability issues.

Thailand

Thailand has 100% coverage with regard to both drinking water and sanitation for schools. The question now is on the quality of water provided to students. Data from drinking water surveillance in schools shows that only about 30% of schools meet the quality standards. The water is mainly contaminated with bacteria and heavy metals. Therefore, the challenge remains in improving the quality of drinking water that students consume. In case of sanitary latrines, the student:toilet ratio needs to be improved, and more schools should have standard designed toilets for the physically challenged.

The Ministry of Education in collaboration with the Ministry of Health has initiated a programme called "Health Promoting Schools (HPS)" where the "happy toilets school education" concept is an integral part. HP schools follow 10 components covering a wide range of healthy practices starting from policy to nutrition to health promotion for staff. Depending on the fulfillment of these components, the Director of Health Department awards

a certificate of excellence to schools at bronze, silver, gold and diamond levels.

Although there is a strong commitment and support of policy makers, the general public needs to be educated on the management of drinking water and sanitation facilities for their sustained support in promoting HP schools.

Timor-Leste

The major health problems of school-age children in Timor-Leste are acute respiratory infections, diarrhoeal diseases, malaria and dengue infection, which are directly linked to environmental factors such as water and sanitation. Timor-Leste has very low drinking water coverage (52%) and sanitation coverage (20%) in schools. However, WSH is being promoted intensely in schools through the school health programme. The provision of water and sanitation facilities is one of the four components of the school health programme, the others being school health policy, skill-based education, and provision of health services. There is a "Healthy Friday" programme in schools where five main activities are organized - health promotion, hygiene practice, environment clean up, health examination and school gardening.

Training of teachers as well as financial/technical support from UN agencies and INGOs are some of the priorities of the government to improve the situation of water supply and sanitation facilities in schools.

General observations on country presentations

The country presentations clearly showed huge variations in the coverage of school water supply and sanitation facilities in schools in the Region: Timor-Leste and Nepal have the lowest coverage in the Region whereas Thailand has 100% coverage. Schools are found to be the most suitable venues for promoting water, sanitation and hygiene mainly supported by the ministries of education and health. Most countries have a school health programme through which WSH activities are implemented while countries like India, Myanmar and Nepal have school sanitation and hygiene education (SSHE) programmes. Thailand has been successfully supporting and implementing WSH through health promoting schools. Even as countries face many constraints and challenges, the most common ones are as follows:

- Inadequate water and sanitation facilities in all countries except Thailand.
- Lack of proper operation and maintenance of water and sanitation facilities, leading to facilities becoming defunct before their expected lifespan.
- Limited funding for expansion plans.
- Lack or limited data on WSH in schools which hinders proper planning and implementation of WSH in schools.
- Challenging multi-sectoral collaboration since many other stakeholders are involved.

3.6 Field visits and observations

To add value and perspective to the consultation process, a field visit to a primary school was arranged. This school was a designated health promoting school in Bandong sub-district, Changmai. His Majesty the King of Thailand had awarded this school for complying with all 10 components of a health promoting school. The school had adequate water supply, separate for drinking and general use. There were also separate toilets for boys and girls. The solid waste management system was based on the concept of reduce, reuse and recycle. For instance, the organic waste of the school was converted into fertilizer which was then used in the school gardens while the remaining was sold to neighbouring communities. Health promotion activities were student-driven, with students taking full responsibility to organize and manage them. Students were empowered with knowledge and skills on health promotion and encouraged to follow good practices in the school and beyond. The school demonstrated excellent collaboration between students, teachers, parents and the local government.

The country participants were divided into four teams and each team was asked to note down two most positive observations, and one action point that they could initiate in their country on return. The following is a summary of team observations:

Field visit report by the country teams

Countries	Two positive observations	One action point that a country would like to initiate
Bangladesh & Bhutan	<ul style="list-style-type: none"> • Good toilet facilities with appropriate designs. • Strong student ownership over water, sanitation and hygiene activities. 	Advocate with teachers to handover the ownership of WSH activities to students.
India	<ul style="list-style-type: none"> • Adequate toilets and urinals. • Good practice of keeping footwear outside the toilet while using the toilets. • Well-managed waste disposal system. 	Adopt the practice of changing slippers before going to the toilet.
Indonesia	<ul style="list-style-type: none"> • Students have full knowledge of the right way to use toilets (change of slippers and washing hands after toilet use). • Students manage the TV programme on water, sanitation and hygiene. 	Start health programmes on TV to be managed by students.
Maldives	<ul style="list-style-type: none"> • Strong ownership by students. • Well informed students promote good practices. 	Empowerment of students through motivation.
Myanmar	<ul style="list-style-type: none"> • Adequate water supply, soap, separate toilets for male and female, good toilet: student ratio (1:30). • Good support from local Govt. in maintaining the facilities and the quality of water supply to schools. 	Integration of hardware and software.
Nepal	<ul style="list-style-type: none"> • Well-managed toilets and waste disposal, with students and teachers taking responsibility to create a healthy environment. • Supportive teachers with a positive attitude towards creating a healthy environment. 	Awareness programmes and capacity building for teachers. Improve coordination among different sectors including parents.
Sri Lanka	<ul style="list-style-type: none"> • Good solid waste management. • Good inter-sectoral collaboration. 	Strengthen hand washing practice through behaviour change.

Countries	Two positive observations	One action point that a country would like to initiate
Thailand	<ul style="list-style-type: none"> • Good student participation in water, sanitation and hygiene activities. • Strong network among local government, schools, hospital and community. 	Continue to Improve the quality of drinking water and maintain the cleanliness of all toilets in schools.
Timor-Leste	<ul style="list-style-type: none"> • Committed players at all levels including students and teachers. • Very responsible students. 	Start a pilot project in one school (model school) on health promotion programme.

Thailand was appreciated for maintaining good inter-sectoral collaboration in the areas of health promotion in schools. The participants recommended to the Thai representatives to carry out a “case study on inter-sectoral collaboration” that helped in implementing the WSH activities in schools successfully. The study results could benefit all other Member countries in strengthening this particular area which almost all Member countries accepted as a problem.

3.7 Benchmarking for water, sanitation and hygiene promotion – Ms. Payden

WHO/HQ had developed a draft document called “Guidelines for Water, Sanitation and Hygiene in Schools in low-cost settings” to guide countries in choosing and implementing some simple and affordable measures to improve the health and hygiene of children in schools within the resources available. This document contains important guidelines that recommend minimum conditions for creating a healthy environment in schools, and also has indicators that can be used as benchmarks. These guidelines can be used by governments, institutions, schools, and local authorities in developing policies, standards and procedures for water, sanitation and hygiene in schools. They can either support or complement the existing national standards or guidelines on WSH.

Ms. Payden, Regional Adviser, WSH, WHO/SEARO presented the background of this document and its importance in ensuring the adequate provision of water supply, sanitation and hygiene in schools. She said that the adaptation of such guidelines at the country level will immensely help

the governments and all agencies involved to work together to achieve WSH-related indicators and goals for schools. The promotion of WSH in schools could be reinforced through such guidelines. She reiterated the benefits of promoting water, sanitation and hygiene in schools – reduction of disease burden among children, staff and their families; effective learning in healthy environments; greater gender equity in access to education, and inculcation of positive hygiene behaviour among students. In addition, provision of water, sanitation and hygiene in schools links and contributes directly to the Millennium Development Goals on universal primary education, gender quality and child mortality.

Requirements for developing a guideline	Essential elements of a guideline
<ul style="list-style-type: none"> • Country-specific. • Based on assessments. • Review relevant national or sector policies, standards, strategies and guidelines. • Understand the roles of various sectors. 	<ul style="list-style-type: none"> • Roles and responsibilities of various stakeholders. • Technology selection. • Operation and maintenance. • WSH curriculum in schools. • Monitoring and evaluation. • Water quantity. • Water quality. • Facilities and access. • Hygiene promotion. • Water quality management (storage, treatment and monitoring). • Sanitation: <ul style="list-style-type: none"> ➤ Toilets for students and staff; ➤ Solid waste management; ➤ Wastewater management. • Control of vector-borne diseases – dengue, malaria. • Food preparation and storage. • Rainwater harvesting.

Discussion

Following the presentation on guidelines and benchmarking, participants raised concerns at the maintenance and management of water and sanitation facilities over a period of time. This was considered an area worth

highlighting in the country guidelines where issues on mobilizing resources and sharing responsibilities at various levels are concerned.

The participants raised some pertinent questions and expressed their views for consideration while preparing the country guidelines, which are as listed below:

- Maintaining the interconnectedness of elements in the guidelines is essential to avoid overlapping or duplication of activities.
- Stratification by geography, income, development status etc. may be useful in adapting the guidelines to the country or local context.
- Inclusion of innovative technology such as solar disinfection of water for water treatment could be looked into, and pilot tested if considered feasible.
- Following a scenario-based approach will prove fruitful, based on the situation of a country and the level of achievement: beginners - mid level – high-level achievers.
- Signing of a Memorandum of Understanding (MOU) between or among the ministries and agencies concerned is an important mechanism to maintain accountability and responsibility, and for sustaining inter-sectoral collaboration.
- Quality of guidelines should be given priority.
- Integrating some sense of morality into the guidelines will go a long way in preserving our scarce natural resources such as water. (How to make the best use of water or how to use water wisely)
- Making these guidelines readable and usable by all, not restricting or dedicating only to policy makers and professionals, will build a foundation for future collaboration and partnerships among the stakeholders and parties at all levels.
- Possibly creating awareness on guidelines through the media to educate the public and also advocate for political support may add plus points to its sustainability. However, providing a clear message to the media is important to prevent misinforming the public.

Group work on the draft guidelines

In order for the participants to get more familiarized with and get a better understanding of the draft HQ document that will help them in developing

a skeletal framework of a guideline for their respective countries, four groups were formed to review the draft, and provide feedback or suggestions for possible incorporation. This process would also help WHO/SEARO in refining the document, and to bring out a regional guideline on water, sanitation and hygiene practices in schools.

The groups had diverse views and provided rich feedback on the draft document. The presentations of the four groups are summarized below:

Group I	Group II
<p>1- General feedback</p> <ul style="list-style-type: none"> Useful guidelines for country adaptation. There has to be a definitive directive as to at what levels these guidelines could be used – national – district – community levels. Difference between indicators and standards is unclear since standards are often referred to as indicators. Mention global indicators/ targets for adaptation at country level. Page 21- delete “separate toilets for boys and girls may not be necessary”. <p>2- Additional points proposed</p> <ul style="list-style-type: none"> Water treatment. Monitoring water quality. Solid waste disposal and sewerage system. Oral hygiene. Role of media and religious leaders. <p>3- Sections that need strengthening</p> <ul style="list-style-type: none"> Guidance on use of toilets. Cleaning of toilet (p22) should be daily (2-3 times) and not when dirty. Section on hygiene : add personal hygiene, wearing shoes/sandals, cut nails, menstrual hygiene, student health inspection. 	<p>1-Water quality</p> <ul style="list-style-type: none"> Removal of contaminants (microbiological and chemical). Time frame. Water testing . Treatment options. <p>2-Water quantity</p> <ul style="list-style-type: none"> Country-specific. Water demand . <p>3-Facilities</p> <ul style="list-style-type: none"> Guide notes not useful. Country-specific. <p>4-Hygiene</p> <ul style="list-style-type: none"> School health club. PTA. <p>5-Toilets</p> <ul style="list-style-type: none"> Water-efficient flushes. <p>6-Vector</p> <ul style="list-style-type: none"> Health clubs as advised by the management. <p>7- Cleaning</p> <ul style="list-style-type: none"> Follow three Rs – reduce, reuse and recycle. <p>8-Food storage</p> <ul style="list-style-type: none"> Awareness programme. Change the menu.

<ul style="list-style-type: none"> Covered water storage (toilets and elsewhere). Brushing, hand washing – use of drinking water. Standard for urinals for boys – structure material and cleaning. 	<ul style="list-style-type: none"> Medical inspection. Food sample. <p>9-Additional points proposed</p> <ul style="list-style-type: none"> Water conservation. Rainwater harvesting. Operation and Maintenance.
<p>Group III</p>	<p>Group IV</p>
<p>1- Relevance</p> <ul style="list-style-type: none"> All sections relevant – good starting point. All sections are integrated. Some sections will be more relevant depending on country context/situation. Some sections will already be covered in other guidelines/policies within other ministries or sectors. However, it must be ensured that needs of schools are adequately addressed. Indicators need to be linked to existing national sector indicators. <p>2- Sections for strengthening</p> <ul style="list-style-type: none"> Glossary – improved, safe, technical definitions (e.g. adequate drainage?). Hygiene promotion - school health club, increase emphasis on PARTICIPATORY approaches. Water systems/latrines – need to address long term sustainability. Water quality – need to increase focus on risk management/environmental management/water safety/alternative treatment options. Water monitoring – need to provide specific guidance on monitoring/surveillance. Vector – needs to specify dengue. 	<p>1- Additional points proposed</p> <ul style="list-style-type: none"> Change - Title of No. 4 to “Physical quality of drinking water” <p>Page 21. Under toilets guidance notes, Paragraph 4</p> <ul style="list-style-type: none"> Change - For children up to the age of about nine, separate toilets for boys and girls <u>may not be</u> necessary....to - For children up to the age of about nine, separate toilets for boys and girls <u>are</u> necessary. <p>Page 24. Under cleaning and waste disposal, Indicators No 3</p> <ul style="list-style-type: none"> Change - the title “cleaning and waste disposal” to “cleaning and waste management” Change - No. 3 Solid waste is collected from classrooms and offices.....to - No. 3 Solid waste is collected from classrooms, <u>kitchens</u> and offices..... Add waste minimization (separate waste for reduce, reuse, and recycle) should be considered. <p>Page 25. Under food storage and preparation Guidance notes, Paragraph 4</p> <ul style="list-style-type: none"> Change - Eating utensils should be washed immediately after each use with hot water and detergent,.....to - Eating utensils should be washed immediately after each use with hot water

<p>3-Additional points proposed</p> <ul style="list-style-type: none"> Guideline section on Management (expansion of section 3.3) Consistent terminology (JMP) Need to consider Urban vs. Rural <ul style="list-style-type: none"> Different levels of service Different partnerships Different technologies Different realities Sustainability and scaling up. <p>4 - Specific comments from IFRC</p> <ul style="list-style-type: none"> Country-level guidelines need to be realistic. Need to identify role/responsibility of INGO/NGOs. Need to stress importance of technical input. Who is responsible for dissemination and then enforcement of guidelines amongst sector stakeholders? Increase focus on sanitation / behaviour change/managing risk /long term management- convert to greatest impact. 	<p>and <u>dishwashing liquid/soap</u>,.....</p> <p>Page 26. Under food storage and preparation guidance notes</p> <ul style="list-style-type: none"> No 3, add, "Food must be cooked 60 cm. above the floor". No. 4 add "Raw food and cooked food must not be placed on the floor" <p>Page 32., No. 5 toilets under design and construction</p> <ul style="list-style-type: none"> Add topic "excreta treatment and disposal method" in the checklist. <p>Page 32., No. 6 control of vector-borne disease</p> <ul style="list-style-type: none"> Add "Are there any pests and pets in schools?" <p>Page 33. No. 7. Cleaning and waste disposal, under design and construction</p> <ul style="list-style-type: none"> Add, "Surrounding and adjacent areas of canteen, food preparation, drinking water service points, and tooth brushing and hand washing areas should be kept clean and controlled by appropriate measures to prevent micro-organism and chemical contamination. Animal-borne diseases must be kept in mind and proper measures taken to control them. Evaluation must be undertaken periodically and reported.
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All the proposed changes were noted. The Regional Office (SEARO) would further review them which would be of critical help while developing the regional guidelines.

3.8 Framework for developing country guidelines on water, sanitation & hygiene

Upon the completion of both the plenary and technical sessions, the participants developed a skeletal framework of guidelines on WSH in

schools for their own countries using the WHO/HQ draft guidelines as a reference. A few countries already have guidelines and standards in some form or the other but not in an integrated manner as one document, and this fragmentation of standards was often a source of confusion among various implementers particularly ministries of health, education, housing and environment. Developing explicit guidelines on WSH in schools will help the Member countries in setting targets, prioritizing resources, garnering support, implementing programmes and sustaining WSH promotion in schools.

This draft framework will provide a strategic direction to each country as to how and what must be included or excluded in the proposed country WSH guidelines. Some countries may just need to strengthen the existing ones while others could develop a new one. Indeed, this draft framework by each Member country in itself is a nascent guideline in the making.

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
Bangladesh and Bhutan	<p>1. Water quality</p> <ul style="list-style-type: none"> • Microbiological quality of drinking water and treatment. • Chemical & radiological quality of drinking water. • Acceptability of drinking water and water source protection. • Monitoring/ surveillance. <p>2. Water quantity</p> <ul style="list-style-type: none"> • Standards based on number of students and the basic quantities. • Appropriate designs : classify for rural/ urban. • Additional quantities for flushing toilets and hand washing. <p>3. Water facilities and access</p> <ul style="list-style-type: none"> • Access to improved, safe and adequate drinking water. • Piped water supply systems. • Accessible drinking water points at all times for students and staff. <p>4. Hygiene promotion:</p> <ul style="list-style-type: none"> • Health and hygiene education. • Appropriate infrastructure (standard designs, gender sensitive, fencing). • Participatory approaches. • Hand washing as an fundamental component of hygiene

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<p>promotion.</p> <ul style="list-style-type: none"> • Appropriate IEC materials. • Establishment of school health club members. • Supervision/ monitoring. <p>5. Toilets</p> <ul style="list-style-type: none"> • Child friendly, culturally and socially acceptable toilets. • Separate toilets for boys, girls and school staff. • Hand washing facilities in/ near toilet with soap or alternative detergents. • Maintaining clean toilets (students / teachers). <p>6. Control of vector-borne disease</p> <ul style="list-style-type: none"> • Dissemination of information on prevention of vector-borne diseases. • Clear roles and responsibilities for all sectors and stakeholders. • Develop a network of peer educators. • Regular supervision and monitoring. <p>7. Cleaning and waste management</p> <ul style="list-style-type: none"> • Regular cleaning of classrooms, and school campus. • Implement three Rs (reduce, reuse, recycle) in all schools • Dispose off the waste safely through improved sewerage system. <p>8. Food storage and preparation</p> <ul style="list-style-type: none"> • Regular training for cooks in schools on food handling and cleanliness. • Monitor and change the menu for students regularly. • Regular supervision by school health coordinators and principals. <p>9. Operation and maintenance</p> <ul style="list-style-type: none"> • Training of the school water caretakers. • Sensitization on regular operation and maintenance for stakeholders. • Training of students on basic operation and maintenance. <p>10. Delineation of roles & responsibilities</p> <ul style="list-style-type: none"> • Central (MoH, MoE, Ministry of Works & Housing, and Local

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<p>Government).</p> <ul style="list-style-type: none"> • Districts (Dist.Eng, DEO, DHO, Civil Surgeon). • Community (parents, teachers, students, religious bodies, local leaders).
India	<p>1. Purpose of developing the guidelines</p> <ul style="list-style-type: none"> • Use guidelines to set targets according to available national resources. • Use global indicators to set national priorities. <p>2. What is required</p> <ul style="list-style-type: none"> • Create public awareness through newspapers, radio, television, posters etc. • Define role of media – should be comprehensible by common people. • Proper, efficient and timely implementation of policies. • Most important is regular and strict monitoring. • Involvement of NGOs, volunteers, religious leaders, student bodies etc. • Involvement of social icons and celebrities for WSH promotion.
Indonesia	<p>1. Introduction</p> <ul style="list-style-type: none"> • Background : School health problem. • Purpose and objectives. <p>2. Policy and Strategy</p> <ul style="list-style-type: none"> • Policy and strategy. <p>3. Activity</p> <ul style="list-style-type: none"> • Capacity building (advocacy, socialization, etc). • School approach (intra-curriculum, extra-curriculum, assignment) (Improving hygiene and sanitation, using healthy toilet, clean drinking water management, canteen and food safety management, hand washing with soap, adequate facilities, waste water and garbage management, replication, scaling up, monitoring/evaluation and sustainability). <p>4. Role and Responsibility</p> <p>Levels : school – sub-district- district – province – central.</p>

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<p>5. Opportunities</p> <ul style="list-style-type: none"> • School-specific data needed to strengthen advocacy-improve commitment from stakeholders. • Vector control – included in decree – needs to be included in guidelines. • Ensure guidelines are appropriate for rural schools (realistic and achievable).
Maldives	<p>1. Introduction</p> <ul style="list-style-type: none"> • Background (sanitation condition, hygiene education and hand washing, cleaning of school, water and environment and sanitation facilities, waste disposal). <p>2. Importance of adequate water supply, sanitation and hygiene in schools</p> <ul style="list-style-type: none"> • Vision, mission statement, aims, specific objectives • Disease prevention – learning, gender, wider community, lifelong skills. <p>3. Contents of guidelines</p> <ul style="list-style-type: none"> • Safe and clean drinking water. • Water quality and quantity. • Water facilities & access to water. • School sanitation and toilets. • Waste water management. • Infrastructure and sludge disposal. • Skill based health education. • Key hygiene behaviour/ conditions including hand washing. • An overview of the existing curriculum in health aspects. <p>4. Implementation of guidelines</p> <ul style="list-style-type: none"> • Guiding principles/ strategies. • Duties and responsibilities (policy makers, school heads, parents, students, health assistants, other stakeholders). • Awareness building for implementation, educational strategy to promote skill based health education in Maldivian schools and institutional arrangement.

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<ul style="list-style-type: none"> • Operation and maintenance.
Myanmar	<p>1. Objectives of having the guidelines</p> <ul style="list-style-type: none"> • Creating a healthy and safe learning environment in schools. • Helping children to develop life skills including hygiene and health. • Reaching out to the family and community. • Ensuring availability of good water and sanitation facilities. • Adoption of healthy practice. <p>2. Criteria for facilities</p> <ul style="list-style-type: none"> • Sufficient water and sanitation facilities available in schools. • Clean and well maintained WSH facilities. • WSH facilities are child-, gender- and age-friendly. <p>3. Criteria for lifeskill-based hygiene education</p> <ul style="list-style-type: none"> • Additional hygiene education. • Lifeskill-based hygiene education. • Hygiene/behavioral changes among students and teachers. <p>4. Criteria for organizational issues at school level</p> <ul style="list-style-type: none"> • A strong link between the school, the health workers and PTA. • Regular community outreach activities. • Community support activities in schools. <p>5. Water quality & quantity</p> <ul style="list-style-type: none"> • High quality drinking water. • Use national standards for chemicals, biological and physical, for drinking water. • Quantity - same as draft guideline. <p>6. Water facilities and access to water</p> <ul style="list-style-type: none"> • Indicators 1 and 2. • Indicators 3 and 4 – not accessible. <p>7. Hygiene promotion</p> <ul style="list-style-type: none"> • All indicators in the draft HQ document are fine for Myanmar. <p>8. Toilets</p> <ul style="list-style-type: none"> • Indicators in the draft HQ document are fine except for the

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<p>sufficient toilets available because the guideline for sanitary latrine already exists.</p> <p>9. Control of vector-borne disease</p> <ul style="list-style-type: none"> • Indicators 2 and 3 in the draft HQ document are fine for Myanmar. • VBD control is one of the components of health promoting schools. <p>9. Cleaning and waste disposal</p> <ul style="list-style-type: none"> • All indicators in the draft HQ document are fine for Myanmar. <p>10. Food storage and preparation:</p> <ul style="list-style-type: none"> • Already included in the health promoting school programme.
Nepal	<p>1. Water quality</p> <ul style="list-style-type: none"> • Use the indicators of the WHO draft guidelines. • Separate guidelines for urban and rural settings. • Capacity building for teachers and students on microbiological safety. • MoHP and MoE will advocate for maintenance of water quality. • Ministry of Physical Planning will be responsible for overall coordination. <p>2. Water quantity</p> <ul style="list-style-type: none"> • Availability of sufficient water at all times for drinking, personal hygiene, food preparation, cleaning and laundry. • Basic quantity and additional for boarding schools. <p>3. Water facilities and access to water</p> <ul style="list-style-type: none"> • Availability of sufficient water collection points and water use facilities. • Convenient access, use of water, water for drinking, personal hygiene. <p>4. Hygiene promotion</p> <ul style="list-style-type: none"> • Advocacy through IEC materials on healthy environment in schools. • Appropriate use of water supply, sanitation and hygiene facilities. • Hygiene and sanitation campaigns.

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<ul style="list-style-type: none"> • Innovative and creative activities in the school and community. • Construct and maintain the school facilities. <p>5. Criteria and indicator for a successful school</p> <ul style="list-style-type: none"> • School compound - school building - water supply – toilet- soaps, bucket etc. <p>6. Toilets</p> <ul style="list-style-type: none"> • Easily accessible –not more than 30 m from all users. • Culturally and socially acceptable. • Hygienic to use and easy to clean. • Have convenient hand washing facilities close by. • Regular cleaning and maintenance. <p>7. Control of vector-borne disease</p> <ul style="list-style-type: none"> • Minimum density of vectors in the school. • School children and staff are protected from vectors. <p>8. Food storage and food preparation</p> <ul style="list-style-type: none"> • Food handling and preparation including cooking properly and storing safely. • Avoidance of contact between raw food and cooked food. • Safe water and raw ingredients are used. <p>9. Institutionalization of programme</p> <ul style="list-style-type: none"> • School level (formation of students’ groups/clubs/committee, participation of all teachers and staff, involvement of school management committee, development of democratic school rules and regulation). <p>10. Control of vector-borne disease/municipality level:</p> <ul style="list-style-type: none"> • Govt. bodies, NGOs, mothers’ groups etc. • Co-ordination and local resource mobilization. <p>11. District level - DDC, DWSO, DEO, DPHO, NGO etc.</p> <p>12. Central and regional level - MOE, MOHP, MOHPP, MOLD, INGO/NGOs</p>
Sri Lanka	<p>1. Water quality</p> <ul style="list-style-type: none"> • The indicators in the HQ draft document are relevant with some additions.

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<ul style="list-style-type: none"> • Health and water supply departments should monitor water quality regularly. • Disinfection of water with chlorine is the most appropriate way. <p>2. Water quantity</p> <ul style="list-style-type: none"> • The indicators in the HQ draft document are relevant with some additions. • Follow WHO recommended quantity. <p>3. Water facilities and access to water</p> <ul style="list-style-type: none"> • High quality drinking water in schools. • Page no :18 :3 guidance is not relevant to Sri Lanka. <p>4. Hygiene promotion</p> <ul style="list-style-type: none"> • The indicators in the HQ draft document are relevant. • Health promotion through the application of clear regulations. • Promote hygienic behaviour such as correct use of toilets, hand washing etc. <p>5. Toilets</p> <ul style="list-style-type: none"> • The indicators in the HQ draft document are relevant. • Page no 21-guidance note – 01- not relevant. • Hand washing point with soap and adequate waste water drainage. <p>6. Control of vector-borne disease</p> <ul style="list-style-type: none"> • Keep the school environment clean through appropriate media. • Cleaning and waste disposal. • All indicators in the HQ draft document are very relevant. <p>7. Food storage and preparation</p> <ul style="list-style-type: none"> • Page no 26.4 not relevant. • Taking food samples and water samples regularly. • Food hygiene programme for students, parents and vendors. • Medical inspection for food handlers. • Regular supervision , change the variety of food in schools.
Thailand	<p>1. Follow-up actions</p> <ul style="list-style-type: none"> • Review the existing standards and guidelines.

Country	Draft Framework of National Guidelines for Water, Sanitation and Hygiene Promotion in Schools
	<ul style="list-style-type: none"> • Study the indicators of WHO documents/guidelines for adaptation. • Focus will be on quality of water available for students. • Sustained inter-sectoral collaboration.
Timor-Leste	<p>1. Current status</p> <ul style="list-style-type: none"> • No integrated guideline. • Low commitment from minister, stakeholder, community, schools. <p>2. Purpose</p> <ul style="list-style-type: none"> • Ensure consistent quality for WASHP activities in school. <p>3. Framework for development</p> <ul style="list-style-type: none"> • Review existing documents. (MoI - Watsan community, solid waste, MoE - Watsan hardware), MoH - healthy school curriculum/water quality, vector, MoA - rubbish collection, Ministry of Environment- private partnership, INGO/NGO guideline). • Identify gaps - vector control, water risk management / water safety plan, environmental management, partnership, gender, ownership issues. <p>4. Action item</p> <ul style="list-style-type: none"> • Advocacy - data verification - joint meeting with stakeholders.

DDC: District Development Committees
DWSO: District Water Supply Office
DEO: District Education Office
DPHO: District Public Health Office
NGO: Non-governmental Organization
MOE: Ministry of Education
MOHP: Ministry of Health and Population
MOHPP: Ministry of Physical Planning and Works
MOLD: Ministry of Local Development
WASHP: Water, Sanitation and Hygiene Promotion

4. Recommendations

The participants strongly recommended the need to develop and implement national guidelines to effectively prevent water and sanitation

related diseases in schools, and to promote the health and wellbeing of students.

The recommendations, as listed below, were drafted and agreed upon by all participants.

1. Recommendations to Member States (General):

- Countries to look into the appropriateness of including a few key indicators on school water and sanitation in the national surveys (DHS, census surveys, MISC etc) for getting national level coverage figures.
- Advocate the importance of school WSH among policy makers, politicians, development partners, teachers, health workers, engineers, media etc.
- Networking with UNICEF, UNESCO, WHO, IFRC, GTZ, WB, ADB, INGOs, NGOs etc. to mobilize resources and strengthen partnerships.
- Develop and implement self-assessment tools to ensure continued improvements of WSH situation in schools.

2. Recommendations to Member States (specific to guideline):

- Hold stakeholder consultation to review and finalize the national guideline.
- Consider the following points during the stakeholder consultation:
 - Guidelines to be simple, realistic and doable with clear-cut operational definitions
 - Each chapter of the guideline should clearly state:
 - Outcome indicators (what to achieve?)
 - Guidelines (how to achieve the outcomes?)
 - Roles and responsibilities of collaborating and implementing sectors and development partners/stakeholders
 - Guideline implementation and enforcement:
 - Identify responsible agencies at national, sub-national and community levels
 - Include a section on operation and maintenance with clear roles and responsibilities
- Inclusion in the annex:
 - Standardized water and sanitation technology for each country
 - O & M schedule
 - Risk management of water quality
 - Point-of-use treatment technologies
 - Any case studies if relevant

3. Recommendations to WHO:

- Provide technical and financial support to the Member States in finalizing their draft national guidelines
- Collaborate with other donors and partners in mobilizing resources for WSH in schools
- Support capacity building of school teachers
- Document and disseminate WSH best practices in the Regions
- Explore appropriate and affordable technologies and support in pilot testing.

5. Closing session

Ms Jane Edgar, representing IFRC and Mr Jan W de Lind Van Wijngaarden representing UNESCO thanked WHO for inviting them to the consultation. They said that it was a great opportunity to meet with all the country representatives at one place, listen to their issues and learn from their experiences. They also thanked the local organizer for efficiently running the meeting. The representatives expressed their wish to strengthen linkages with WHO in improving the lives of school children in South-East Asia.

Ms Payden, speaking on behalf of WHO/SEARO thanked the Government of Thailand for hosting the regional consultation. She thanked the Director-General of the Health Department, Ministry of Public Health, Thailand for supporting the consultation. She conveyed her deep gratitude and appreciation to Dr. Sunsanee Rajachagool and her entire team of IOCH for organizing and managing the regional consultation most efficiently and smoothly, and for the hospitality extended to the participants.

Annex 1

Message from Dr Samlee Plianbangchang, Regional Director, World Health Organization South-East Asia

**(delivered by Ms Payden, Regional Adviser-Water,
Sanitation & Hygiene, WHO/SEARO)**

Distinguished participants, colleagues, ladies and gentlemen,

It gives me great pleasure in welcoming you all to this important consultation and to convey greetings from the Regional Director, Dr Samlee Plianbangchang. Since Dr Samlee is unable to attend, I have the honour to deliver his message. I quote

“The growth and development of children is influenced by the environment in which they live. This includes the availability of safe water sources for drinking, bathing and washing and sanitary facilities in homes, schools and communities.

Children breathe more air, drink more water and eat more food than adults do per unit body weight. Children drink two and a half times more water as compared to adults and eat three to four times more per unit of body weight than the average adult. The higher rate of intake of water and food results in greater exposure to pathogens and pollutants. Therefore, if the water contains residues of pesticides or other chemicals, infants will receive more than double the dose of an adult drinking the same water. If the level of exposure to pollution continues from infancy onward, they will be at a greater corresponding lifetime risk.

Ladies and gentlemen,

More than 1.4 billion children aged 5 to 14 years, approximately 87% of all children, live in developing countries, where many of the biggest environmental challenges exist. School-age children’s environments expand beyond their homes and care centres, exposing them to frequent interaction with a wider range of people in more places than when they

were younger. Several potential environmental risks such as unsafe water, unsanitary living conditions etc. are particularly associated with children during this period. Helminth diseases, which are caused by intestinal worms eggs generally found in soil and vegetables, are one of the common health problems among school age children in developing countries. Children in this age group can commonly carry thousands of hookworms, roundworms and whipworms at a time, which can cause anaemia and other debilitating conditions. These illnesses can result in impaired learning, poor school performance and frequent absence from school.

Rapid industrialization, urbanization and intensified agriculture all account for the increased chemical pollution worldwide. Industries without proper waste treatment systems, non-functioning sewage treatment systems, hazardous materials from various settings such as health care, schools, homes and the excessive use of pesticides and fertilizers for agricultural and domestic purposes, all release toxic substances into the air, food or water. Heavy metals and persistent organic pollutants (POPs), such as polychlorinated biphenyls (PCBs), dioxins and DDT, are of particular concern since they do not degrade in the environment for decades and accumulate in, and are toxic to, plants, fish, animals, and humans. These substances also can travel long distances, easily moving from one medium to another in the environment.

Ladies and gentlemen,

Diarrhoeal disease is a leading cause of child mortality and morbidity in the world, and mostly results from contaminated food, lack of sanitation and unsafe drinking water sources. Some more severe diseases are also included such as cholera, typhoid and dysentery, all of which are related to "fecal-oral" transmission pathways.

In the South-East Asia Region, more than 80% of the population has access to an improved drinking water supply source. About 56% have access to improved sanitary facilities. Approximately 88% of deaths are from diarrhoea due to unsafe drinking water, inadequate availability of water for hygiene and lack of access to sanitation. These conditions not only have a detrimental effect on under-fives but also have an impact on the health, school attendance and learning capabilities of school-going children.

The school setting provides several opportunities for implementing water, sanitation and hygiene promotion. First, the students are considered

a captive population ready to absorb new information as well as apply the new knowledge in their daily lives to promote health. The school setting also has teachers and other staff who facilitate learning of content and skills aimed at moulding positive behaviours in young people thereby making the school a place to shape good practices for the future. The school's infrastructure comprises water and sanitary services which are an integral part of the daily life of the school child. The water and sanitary infrastructures should meet specific standards in order to benefit both pupils and staff. Specifically, water quality and quantity should meet agreed international scientific standards and also structures such as toilets should also meet agreed standards.

Ladies and gentlemen,

Water, sanitation and hygiene issues in school bring together several key government ministries to deliver services. In this case, the Ministry of Education is the custodian of school children but other Ministries and departments are responsible for providing clean water. On the other hand, the ministry which deals with construction or physical infrastructure is responsible for setting up toilets in schools, while the Ministry of Health is responsible for the technical content on water, sanitation and hygiene including health promotion and prevention of diseases. The provision of water, sanitation and hygiene requires a multi-sectoral and multi-disciplinary approach which also involves the community.

To effectively implement water, sanitation and hygiene promotion interventions in the schools using a multi-sectoral approach, there is need for structured guidelines which articulate standards for both the education and prevention aspects and the infrastructural standards including water quality and water quantity. To date, Maldives is the only country among Member States in the WHO South-East Asia Region that has established guidelines for water, sanitation and hygiene promotion in schools. While this is highly commendable, it is also an opportunity for all countries in the Region to learn and adopt what is applicable to their own situations. It therefore gives me great pleasure to see that lessons are being drawn from a regional experience.

Ladies and gentlemen,

Although guidelines for water, sanitation and hygiene promotion in schools are yet to be concretely established in most of our Member

countries, the on-going work in all the 11 Member countries in the Region related to school health promotion deserve recognition. Concerted efforts are being made to build and sustain collaboration between the Ministry of Health and the Ministry of Education in order to deliver health content and skills to both students and teachers specifically at primary and secondary school education level. In most cases, structured health instruction through the curriculum is being conducted by trained teachers.

The WHO Regional Office for South-East Asia places great emphasis on supporting the Ministry of Education to integrate health content and skills into the curriculum and to prepare teachers to deliver as well as monitor the progress. With this in focus, WHO seeks to tailor all school health promotion activities toward attainment of the education, health and development goals collectively.

Ladies and gentlemen,

Indeed, the main public health challenges in schools in the South-East Asia Region continue to be those associated with water, sanitation and hygiene. The health promoting schools concept provides an opportunity to halt or reverse this trend and, if planned and implemented wisely and thoroughly, students will gain considerable benefits while at school, and, more importantly, in their future adult lives.

Relevant government ministries and organizations involved in advancing the health and well-being of students, are encouraged to adopt the guidelines to be developed at this consultation to improve the health and educational outcomes of young people.

Ladies and gentlemen,

In conclusion, may I reiterate that as you embark on this important process of establishing guidelines for water, sanitation and hygiene promotion in schools, it would be important to ensure that mechanisms for:

- Continuous active commitment and demonstrable support by policy makers and relevant concerned organizations to the ongoing implementation of the water, sanitation and hygiene promotion guidelines in schools including monitoring and evaluation exist. A signed Memorandum of Understanding

(MOU) between the health and education ministries could be an effective way of formalizing this commitment.

- Sustainable partnerships for water, sanitation and hygiene promotion in schools exist and are maintained within and outside the school.
- Resource mobilization, disbursements and accountability are in place, and that, specifically with regard to human capacity and financial resources to implement the required actions identified in the guidelines are available in a timely manner." Unquote.

I shall, of course apprise the Regional Director of the outcome of this consultation. I would also like to take this opportunity of wishing you all fruitful deliberations and a pleasant stay in Chiang Mai.

Annex 2

Agenda

28 September 2009

Item	Presenter
Remarks of the Regional Director, WHO/SEARO	Delivered by Ms Payden, Regional Adviser, Water, Sanitation and Health, WHO/SEARO
Inaugural address	Dr. Suvaj Siasiriwattana, Dy. Director General, Department of Health, Ministry of Public Health, Thailand
Objectives and agenda of the workshop	Ms Payden, Regional Adviser, Water, Sanitation and Health, WHO/SEARO
Introduction of participants	Mr Sonam Rinchen, JPP, WHO/SEARO
Regional overview: Health promotion in schools	Dr Neena Raina, Regional Adviser, Child and Adolescent Health, WHO/SEARO
Regional overview of water, sanitation and hygiene in schools	Ms Payden, Regional Adviser, Water, Sanitation and Health, WHO/SEARO
Exchange of national experiences from ministries of health, education and water	Representatives from Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste
Setting Standards for Quality and Quantity (Hardware)	Ms Payden, Regional Adviser, Water, Sanitation and Health, WHO/SEARO
Discussions	All

29 September 2009

Field visit to a primary school	All
Group work 1- to discuss on the lessons learnt from the field visit	Four teams
Presentation of group work	Representatives of each team
Group work 2- to review draft global guideline	Four teams

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Presentation of group work	Representatives of each team
Group work 3 – to develop a framework for developing WSH guidelines in schools for each country	Country teams
Group work presentation	Representative from each country
Presentation of summary and recommendations	Mr Sonam Rinchen, JPP, WHO/SEARO
Closing remarks	Ms Jane Edgar, Regional Water and Sanitation (delegate South-East Asia) International Federation of Red Cross and Red Crescent Societies (IFRC) Mr Jan W de Lind Van Wijngaarden Regional Adviser – HIV/AIDS, UN Educational, Scientific & Cultural Organization (UNESCO) Ms Payden, Regional Adviser, Water, Sanitation and Health, WHO/SEARO

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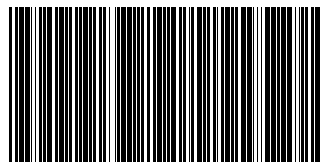
Most Member countries of the WHO South-East Asia Region do not have in place comprehensive guidelines on establishing and maintaining water supply and sanitation facilities, and for the promotion of hygiene in schools. There are also no fixed standards on water quality, sanitation and hygiene education. While some countries have taken the initiative to provide such education through the school health programme, lack of guidance and preset standards on initiating water, sanitation and hygiene promotion in schools retards the progress of school health promotion activities in most countries.

A Regional Consultation on Developing Water, Sanitation and Hygiene Guidelines for Schools was organized during 28-30 September 2009 jointly by the Ministry of Public Health, Thailand, and WHO/SEARO in Chiang Mai, Thailand. Thirty three participants, including school health programme managers, sanitary engineers and public health officers from 10 Member States of the WHO SEA Region – Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste – attended the consultation along with regional representatives from UNESCO and the International Federation for Red Cross and Red Crescent.

This is the report of the said consultation, a key recommendation of which was to develop a regional guidance document which would be useful in developing country-level operational guidelines.



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SEA-EH-566