Meeting Report

DEVELOPMENT OF ACTION PLANS FOR ACHIEVING AND MONITORING SDG WASH TARGETS – LESSONS FROM ACCOMPLISHMENTS OF THE WHO/DFAT WATER QUALITY PARTNERSHIP

20–23 February 2017
Manila, Philippines

World Health Organization
Western Pacific Region

WORLD HEALTH ORGANIZATION

REGIONAL OFFICE FOR THE WESTERN PACIFIC

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NOTE

The views expressed in this report are those of the participants of the Meeting on Development of Action Plans for Achieving and Monitoring SDG WASH Targets – Lessons from Accomplishments of the WHO/DFAT Water Quality Partnership and do not necessarily reflect the policies of the conveners.

This report has been prepared by the World Health Organization Regional Office for the Western Pacific for Member States in the Region and for those who participated in the Meeting on Development of Action Plans for Achieving and Monitoring SDG WASH Targets – Lessons from Accomplishments of the WHO/DFAT Water Quality Partnership held in Manila, Philippines from 20 to 23 February 2017.

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Keywords

Drinking water / Safety Management / Water quality – standards / Sanitation / Social determinants of health

SUMMARY

The Meeting on Development of Action Plans for Achieving and Monitoring SDG WASH Targets – Lessons from Accomplishments of the WHO/DFAT Water Quality Partnership, held in Manila, Philippines on 20–23 February 2017, marked the end of the decade-long Water Quality Partnership for Health between the World Health Organization (WHO) and the Australian Department of Foreign Affairs and Trade (DFAT). The investment of 25 million Australian dollars in 15 countries of the WHO South-East Asia and Western Pacific regions resulted in the provision of safer water to 50 million people (40 million in the Western Pacific Region) through 92 rural and 140 urban water supply systems, making it a very cost-effective intervention for providing safer water at 50 cents per capita. This project on water safety plans (WSP) was also the single largest implementation of a risk management approach to drinking-water supplies, using the WHO *Guidelines for Drinking-water Quality*.

During phase 1 of the Partnership, countries gained practical experience on WSPs through pilot testing and training; phase 2 focused on scale-up; and phase 3 pursued implementation, establishing WSP approaches as an integral part of policies and institutional frameworks, mobilizing resources to support WSP improvement and developing resources and tools to support WSP implementation – especially extending to add surveillance and compliance monitoring or WSP auditing. Given this last aspect, combined with the enormous experiences gained through this project, countries considered WSP implementation and further scale-up an important stepping stone towards achieving the Sustainable Development Goal (SDG) target on safe drinking-water, as well as compliance monitoring for its monitoring needs.

The meeting was attended by representatives from 11 countries in the Western Pacific Region to consolidate lessons learnt on WSPs to advance the achievements and monitoring of the SDGs. For the WHO Regional Office for the Western Pacific, this was evaluated against the *Western Pacific Regional Framework for Action on Health and Environment on a Changing Planet*, approved at the 67th session of the Regional Committee.

While 40 million people in the Western Pacific Region now benefit from this Water Quality Partnership project, reaching national populations in each of the partner countries remains an enormous challenge. Achieving the SDG on water, sanitation and hygiene (WASH) requires coverage of the sanitation aspects of the Goal. The relatively new concept of sanitation safety planning, parallel to water safety planning for sanitation, provides an excellent framework. Participants therefore considered it in their continuation strategy for achieving the WASH SDG targets. This, however, poses important technical and resource challenges to be communicated to donors and development partners.

Climate change is a present and mounting danger. Embedding this into the future WSPs – to consider impacts on the quality of water due to changing climate – makes it complicated as well as presents great opportunities.

Finally, ensuring adequate WASH in all health-care facilities as part of the push for universal health coverage is yet another opportunity for the Region to fill SDG gaps.

The meeting met all its objectives: (i) to review and identify lessons learnt from the WHO/DFAT Water Quality Partnership for Health in the Western Pacific Region; (ii) to discuss key recommendations and priority actions to sustain WSP implementation in the transition from the Millennium Development Goals to the SDGs; and (iii) to develop strategies and national and subnational plans for the attainment of SDG 6 based on experience in implementing WSPs and in consideration of the Western Pacific Regional Framework for Action on Health and Environment on a Changing Planet.

1. INTRODUCTION

The World Health Organization (WHO) and the Australian Department of Foreign Affairs and Trade (DFAT) Water Quality Partnership for Health (WQP) aims to establish water safety plans (WSPs) in 15 countries of the WHO South-East Asia and Western Pacific regions, based on a comprehensive risk assessment and risk management approach to water supply from catchment to consumption. The Partnership has resulted in a total of 92 rural and 140 urban water supply systems implementing WSPs. Close to 40 million people living in nine selected countries of the Western Pacific Region have benefited from the WSPs. WSP implementation can help countries achieve Sustainable Development Goal (SDG) target 6.1, which is to achieve universal and equitable access to safe and affordable drinking-water for all by 2030.

In phase 1 of the Partnership, countries gained practical WSP experience through pilot testing and training; phase 2 focused on scaling up WSPs; and phase 3 focused on increasing WSP implementation, establishing WSP approaches as an integral part of policies and institutional frameworks, and mobilizing resources to support WSP improvement and develop resources and tools to support WSP implementation – especially relating to water quality surveillance and WSP auditing. The Partnership ends in June 2017.

At the phase 3 midterm review, participants recommended a final review to consolidate lessons learnt, to plan for the longer term, and to evaluate the Partnership's workplans, key indicators, targets and accomplishments for sustainability beyond the life of the Partnership. The final review would provide not only important strategic guidance for countries and the Region, but also ideas on how the lessons from the last 10 years of WSP implementation can link to plans for SDG 6 (Ensure availability and sustainable management of water and sanitation for all). The development of these plans is in line with recommendations made in the *Western Pacific Regional Framework for Action on Health and Environment on a Changing Planet*, endorsed by the Regional Committee in October 2016. The Meeting on Development of Action Plans for Achieving and Monitoring SDG WASH Targets – Lessons from Accomplishments of the WHO/DFAT Water Quality Partnership was convened by WHO in Manila, Philippines on 20–23 February 2017, with the participation of high-level government officials of WSP project countries.

The objectives of the meeting were:

1. to review and identify lessons learnt from the WHO/DFAT WQP for Health in the Western Pacific Region;
2. to discuss key recommendations and priority actions to sustain WSP implementation in the transition from the Millennium Development Goals (MDGs) to the SDGs; and
3. to develop strategies and national and subnational plans for the attainment of SDG 6 based on experience in implementing WSPs and in consideration of the *Western Pacific Regional Framework for Action on Health and Environment on a Changing Planet*.

2. PROCEEDINGS

2.1 Opening session

Dr Susan Mercado, Director, Division of NCD and Health through the Life-Course, WHO Regional Office for the Western Pacific, welcomed participants to the meeting. This was followed by an overview of the Water Quality Partnership with the Australian Department of Foreign Affairs and Trade given by Dr Takeshi Kasai, Director, Division of Programme Management. Dr Kasai underlined the need for sustaining water safety plans (WSPs) following the end of the Partnership and suggested that the principle of risk management could also be applied to sanitation to help countries achieve SDG 6 on water, sanitation and hygiene (WASH). Impressed by the collaboration between ministries of health and ministries of environment on water safety in Viet Nam and the impact on service quality during his tenure as WHO Representative for Viet Nam, he looked forward to the

recommendations of the meeting. Dr Mohd Nasir Hassan, Coordinator, Health and the Environment, noted the independent evaluation of the Partnership in 2014, which found the project to be cost-effective with high impact, providing access to safe water to 25 million people.

2.2 Session 1: Scene setting and lessons learnt from the Water Quality Partnership (WQP) project

2.2.1 What is a water safety plan (WSP) and how can it improve health?

In the *Millennium Development Goals Report 2015*,[1] WASH monitoring showed that improved drinking-water sources still left some 660 million without access, and that those with access did not necessarily have drinking-water that is safe. Furthermore, 1.8 billion people were drinking water with faecal contamination. If we were to consider water quality, the drinking-water coverage for countries drops dramatically. Addressing the safety of drinking-water is a serious health consideration and was the foundation for this project.

Water safety planning was first introduced in the 2004 WHO *Guidelines for Drinking-water Quality*. It focuses on managing risk for drinking-water right from their sources, treatment, distribution, consumption or point of use, and, finally, at the storage points at the household level. In this regard, WSPs engage all in the distribution chain to ensure safe water for consumers. Some examples of how WSPs have been successful were presented, such as in Nagpur, India, where stakeholders identified poor household treatment and storage as a problem. They traced contamination reports to the point of consumption at the tap after finding that the water sources, treatment and distribution were free from contamination.

WSPs help stakeholders understand the complete water supply system. After hazards and risks are identified and management plans are proposed, WSPs enable the implementation of barriers to contamination and water safety systems to prevent problems. Such plans have been implemented in 92 countries (even if they are not formally called water safety plans). Of these, 68 have policies on water safety planning, either approved or under development, and they have been applied to both urban and rural contexts.

Under the WHO/DFAT WQP, more than 1000 WSPs were developed and these serve 50 million consumers across the WHO South-East Asia and Western Pacific regions. A study on this Partnership has found that understanding, communication and collaboration among major stakeholders in water supply systems have improved. WSPs have also resulted in improvements in operations and maintenance, and cost savings; operational efficiency and reduction in non-revenue water; and financial support from governments, donors and development banks, with an overall result of improved water quality, service delivery and health.

As the SDG WASH framework integrates risk management approaches, the risk-based project of WQP in the partner countries was a unique opportunity to consider designing their national action plans for achieving and monitoring the WASH SDG targets. A clear articulation of this link to national programmes and capturing it through viable and scalable strategies is the key to the sustainability and continuity of this project in national programmes.

[1] The Millennium Development Goals report 2015. New York, NY: United Nations; 2015 (http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf)

During the discussion, the following points emerged:

- In many WQP countries, WSP is now an integral part of water supply systems and is used to rehabilitate systems that are nonfunctional.
- An impact assessment summary for every country is being prepared and WHO will work with each country to finalize the data.
- Participants expect WSP workshops to provide training skills and build their confidence in implementing WSPs. WSP trainers are generally trained to impart such skills.

2.2.2 The road to safely managed water, sanitation and hygiene (WASH) through WASH safety planning

The SDGs are based on the three dimensions of sustainable development – social, environmental and economic – focusing on five Ps: people (goals 1–6), prosperity (goals 7–12), planet (goals 13–15), peace (goal 16) and partnership (goal 17). Unlike the Millennium Development Goals (MDGs), an accountability or monitoring framework is integral to the SDG framework, as part of the SDG declaration agreed unanimously by the Member States at the 70th session of the United Nations (UN) General Assembly.

MDG monitoring of the WASH sector by the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) showed that safely managed water drives progress on the ground. The key to that is the formulation of a smart indicator. JMP's work since 2011 – carried out against the backdrop adopting the human right to water and sanitation at the UN General Assembly and at the Human Rights Council in 2010, as well as the 2011 WHO resolution on safe water for better health – resulted not only in the inclusion of safety in WASH but also safe management approaches, lending to the notion of risk management, which is the backbone of WSPs and sanitation safety plans (SSPs). Safely managed water is defined as water sources located on premises, available when needed, and free of faecal and chemical contamination. Safely managed sanitation is defined as facilities that are not shared and where excreta is treated in situ or off-site. The SDG WASH targets and their monitoring not only address the unfinished business of the MDGs, but make important links to norms, standards and their implementation through guidelines, standards setting and WSPs, respectively.

Moving from the MDG concept of unimproved to improved water provides a modest health gain of 11%, while a safely managed reticulated system yields a substantial gain of 73%. The discussions captured the following salient points:

- Concerns were raised that stringent restriction of the SDG WASH norms will make countries regress in terms of their access. However, it was argued that developed countries will be equally challenged during the SDG process, which was not the case with the MDGs. For example, in Viet Nam, the coverage figure would decrease dramatically from nearly 100% to about 20%. While communicating this transition would not be easy, it may be equally difficult when developed countries like France, Germany or Sweden find themselves well below 100%. The SDG framework provides a unique opportunity to not only address safe management of WASH issues but also achieve its progressive realization – that is, serving the unserved or difficult-to-serve communities progressively. While the developed countries may be much closer to the universal access target, reaching these groups will nonetheless be challenging.
- A continuation strategy for national scale-up, as well as WSP extension in non-partner countries, needs to include embedded risk management strategies into national policies and legislation. This has been successfully done in a few partner countries and lessons from these could be extended to others.

2.3 Session 2: Sustaining WSPs in the era of Sustainable Development Goals

2.3.1 Developing national drinking-water quality standards

The first step in the implementation of the *Guidelines for Drinking-water Quality* is its adoption at the national level of setting appropriate national standards involving all relevant national institutions. National adoption of the 300 chemical parameters listed in the fourth edition of the Guidelines is a mammoth task for any country. Identifying risks and creating a risk management approach is much more sensible than setting up a system consisting of hundreds of parameters. The future direction is to promote national adoption and set national standards to be accompanied by risk-based parameters depending on the WSP assessment. The same approach would be applied to surveillance programmes: rather than the surveillance agency testing water for a long list of parameters, the agency would monitor a short, limited mandatory list and a number of especially relevant parameters identified in the WSP. This way, the approach would be simpler, more economical and risk management–based, and, last but not least, serve both national and international monitoring purposes. Peer review is recommended using domestic and international experts. It should take 9–18 months to review and update standards.

While standards and compliance with national standards may vary from country to country – as was shown by the three case studies presented from China, the Philippines and Viet Nam – it was agreed that a risk management–based approach will simplify the need to ensure drinking-water quality and the need to impose numerous parameters in national standards systems or their compliance.

Countries also agreed that in emergency situations, microbial quality testing is of paramount importance. Occasional testing of key microbial and chemical parameters at points of use – such as direct testing through household surveys or by regulatory frameworks – will provide additional confidence and independent verification of the quality of drinking-water.

2.3.2 Strategies for sustaining WSPs

Capacity varies across countries in terms of both the WQP implementation and sustainability beyond the project phase. While embedding WSPs in national policies and legislative frameworks is an important consideration, as demonstrated in several partner countries, a risk management–based approach through national policies and programmes and their progressive implementation will be key to progressive achievement of the WASH SDG targets. This will also ensure that the health and socioeconomic impacts will be sustained.

Having said this, WSPs are not without their challenges and difficulties. The vast majority of drinking-water sources remain point sources and implementing water safety planning or testing their compliance in such circumstances is very challenging.

2.3.3 Panel discussion: Embedding safety planning in national policies and linking to SDG 6

A panel of representatives from Bhutan, Cambodia, Cook Islands, the Lao People's Democratic Republic, Malaysia and Viet Nam considered the following questions:

(i) As a result of the WQP, 40 million people in the Western Pacific Region are covered by WSPs, but not necessarily all benefit yet from safely managed drinking-water services. This goes beyond safety and quality of water to issues around accessibility, availability and more. What continuation strategies are in place?
(ii) The SDGs will not be achieved for free. Have you considered costing the various elements to address the gaps and to scale up water safety planning for the whole country?
(iii) What would you like WHO and other international agencies to do after the end of the WQP project: capacity-building, technical guidance, etc.?

Panel members and other participants agreed that while their measure of sustainability could vary, embedding the WSPs in their SDG target setting and monitoring framework is the most sensible approach.

On the cost issue, while national implementation of WSPs could be a costly exercise, adding on such an element in national SDG implementation would be marginal. Participating countries expect to have continued support from WHO and other agencies, especially as it pertains to technical assistance such as training, including compliance monitoring. Countries felt strongly that replicating the risk management–based approach in the sanitation sector would be very challenging and therefore all help from development and technical partners will be extremely helpful. The approach to community-led sanitation taken by the United Nations Children's Fund (UNICEF) may lend a hand in addressing important initial gaps, as well as make projects cost-effective and easier to implement.

Implementation of WASH programmes in countries can benefit from the World Bank's recent focus on multisectoral engagement, such as linking WASH with nutrition. Since WASH cuts across many sectors, such approaches can generate additional resources from outside the strict boundaries of the sector.

2.3.4 Universal health coverage, the SDGs and WASH

Water and sanitation are essential to universal health coverage (UHC), which concerns not just treatment services but also enabling services such as provision of water and sanitation.

Equitable WASH will require the engagement of many sectors, as well as civil society, the community and the household. The Regional Action Agenda on Achieving the Sustainable Development Goals in the Western Pacific (2017) goes broader to include UHC on the road to the SDGs, with some guiding questions: (i) How will countries achieve the sustainable development agenda in a stepwise way, reducing the targets to a manageable set? (ii) How can the health sector lead this agenda? and (iii) What new capabilities do we need to build? A practical example was a project with the Philippines using gender and equity analysis to improve access, especially in WSPs in the settlements of Dasmariñas, Manila. WSP coordinators had influence over seven domains, from site selection to knowledge management.

2.4 Session 3: Strategic planning for attainment of SDG 6

2.4.1 Introduction to sanitation safety planning

In order to cover the full WASH risk management concepts towards the SDGs, a risk-based management tool for sanitation systems and a preventive approach to sanitation health issues – sanitation safely plans (SSPs) – were presented. While WSPs are intended to stop contamination, SSPs aim to prevent human exposure along the sanitation chain from toilet to treatment plant and disposal or safe reuse of faecal sludge.

During 2011–2013, SSPs in the Philippines were developed by the Department of Health. They were fully piloted in 2014. In phase 1, two water utilities were selected, Maynilad Water, operating a combined treatment plant, and Baliwag, operating a septage treatment plant. WHO and the Asian Development Bank have since conceptualized a pilot business model for treated faecal sludge.

Local governments are increasing their investment in sewage treatment plants, which will generate a great deal of biosolids. The plan is to develop a business model to sell sludge, with the aim only of covering the costs of treatment. For every kilogram of biosolids, the farmer adds 2 kilograms of carbonized rice hulls, compost seedlings and so on to the soil for harvesting and tests the bio-efficacy on crops like corn and okra.

For phase 2, challenges include the length of the sanitation chain, which involves many sectors and parties. However, Maynilad Water and Baliwag are already experienced with the risk assessment approach, though this is not the case with non-WSP partners such as farmers. Baliwag also considers water recycling important, especially given climate change.

SSPs can be particularly important for the Pacific islands such as Cook Islands. In most atoll communities, tourism is the primary revenue generator. As such, the coast is full of hotels using septic tanks (primary systems) with effluent being discharged to the lagoons. Although there was little awareness about the issue at the time the tanks were installed, now the climate is warming up and lagoons are turning green. Lagoon protection zones are now being put in place where all properties are being upgraded to a secondary system.

2.4.2 Sanitation safety planning for the SDGs

Everyone is interested in meeting the SDG target by installing treatment plants. However, questions remain, such as: Where does the overflow go? Where does sewage go in flooding? Are the crops really safe to eat? Additionally, there is increasing demand for wastewater reuse in agriculture, and more people are consuming wastewater-irrigated food, which had been until now reported as informal practice. A few scenarios from the Philippines and elsewhere were presented.

In the case of the treatment plant in Baliwag, a small agricultural town north of Manila, the effluent goes to an adjacent vegetable farm growing lettuce and mustard greens.

About 20% of the mountain city of Baguio in the Philippines is served by a sewage treatment plant. Most effluent flows into the creeks and agricultural areas below. The sewage treatment plant produces dried sludge that is used as soil conditioner on flower farms and is picked up by farmers themselves. The majority of wastewater is treated by septic plants, then flows out to farms. Most of the vegetables sold in Manila are from Baguio.

The island of Boracay in the Philippines is served by a sewage treatment plant. Due to the small size of the island, the overflow from areas that are not part of the sewage treatment plant ends up in the sea. But there is no analysis of this unsafely managed sewage. Only 20% of the island is served by its sewage treatment plant. So, septic tanks have overflows that are received by the drainage systems and flow into the sea. The SSP is due to be implemented soon.

The next decade will see ramping up of sewage treatment in the Philippines. This is a great opportunity to apply SSPs aiming for safely managed systems that prevent contact with excreta and break the cycle of disease. Key SSP outputs are detailed monitoring plans to ensure safe treatment, corrective actions when operational limits are exceeded and a detailed verification plan.

In Kolkata, India, raw sewage from most of the city is collected by a sewage system, but there is no treatment plant. A portion of it is supplied to fish ponds. In another area near the city, sewage is collected and delivered to a plant, then goes into irrigation, which is highly demanded by farmers who wish to have soil that is high in solid content and rich in nutrients.

SSPs monitor common microbes like *Escherichia coli* (*E. coli*), but other microbes implicated in antimicrobial resistance (AMR) are also found in wastewater. Most wastewater from hospitals goes to the general pipes and plants. Wastewater from manufacturing plants and antibiotics-fed livestock farms also goes into the environment. It is necessary to recognize all kinds of contamination risks and outline where the risks are, documented with data to convince management. The issues are usually known but supporting data are needed to convince others, such as other agencies controlling the many causes of pollution in the community.

After treatment, there is no contamination of vegetables by biosolids and research supports this. Even without a specific vegetable standard, the Philippine Department of Health prescribes the proper way to handle soil conditioner and the type of crops. The SSP should be able to recommend control measures, including information to farmers on fertilizer use, crop types and how to wash before market. However, use of biosolids is not universally accepted due to perception and other issues, including lack of monitoring capacity. Disease surveillance is also needed to ensure the vegetables are safe, even with a plan in place. Humans are the number one pollutant – sewage is one of the main vectors for disease that now increasingly have AMR agents.

2.4.3 WASH in health-care facilities

The earlier that environmental risk factors can be addressed the better. The moment a pregnant mother is exposed to arsenic or pesticide, the fetus may carry that exposure for a lifetime. Whatever the exposure, climate change may only make it worse. A study of 54 countries found that 38% of health-care facilities lack improved water sources. In Malaysia, more than 20% did not have proper toilets. Health-care facilities may have water and toilets but no soap for handwashing. Data are scarce and more evidence is urgently needed, but with the limited evidence, it is clearly identified as an urgent issue that will risk not only the WASH SDG targets but health SDG targets as well, and jeopardize UHC.

On the question "Are we ensuring the best start to life?", the Maternal and Child Health Unit of the WHO Regional Office for the Western Pacific identified gaps in WASH in the delivery rooms and neonatal care units of hospitals in the Region: the WHO *Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020)* includes a review of WASH services. Hospital-born babies in low-income settings are at a higher risk of being affected by neonatal sepsis, with infection rates 3-20 times higher than in high-income settings.

Data taken from seven countries show that higher-level hospitals were likely to have better WASH than primary health centres. They all had piped water on-site, but a few did not have a water tap in the delivery room. Far fewer offered functional toilets near the delivery room, alcohol and hand rub, and even fewer offered hygiene facilities. Similarly, neonatal units had a far lower proportion of clean and functional toilets. Over 75% had clean sinks, but fewer had soap. This influences the frequency health workers practise hand hygiene, and correct hand hygiene is not followed in about one in three deliveries. The umbilical cord is handled by soiled gloves in one in five deliveries. Poor sanitation in health-care facilities triples the risk of maternal death.

Hospital-led quality improvement for newborn care is the WHO approach in the Region and this should contribute to achieving the SDGs.

Responsibility for WASH in health care is often unclear. A resolution was passed at the Regional Committee in 2016 on 100% access to WASH in health-care facilities. There is a clear need and an opportunity to come up with regional targets for WASH in health care with a stronger evidence base. An intensified approach in this area will not only benefit the countries in the Region, but also be a great example for the rest of the world. It provides additional impetus to have explicit indicators on WASH in health-care facilities, triggering actions within core programmes of the ministries of health as well as in WHO.

Case study 1: Lao People's Democratic Republic

Two thirds of the population in the Lao People's Democratic Republic is rural and 8% have no access to roads – a major challenge. Two of the top diseases are pneumonia and diarrhoea. A 2015 WASH survey found that just 43% of district hospitals had improved water supply and 55% had improved sanitation.

An Infection Prevention and Control Committee under the Ministry of Health handles WASH in all health-care facilities. The Law on Hygiene, Disease Prevention and Health Promotion (2001) was updated in 2012. The National Drinking Water Quality Standard (DWQS) was revised in 2014, adding WSPs and more detailed monitoring requirements. Health-care waste management regulations are being updated, as well as basic environmental health standards for health-care facilities.

Two pilot projects are integrated with the programme, including building of new delivery rooms with proper WASH facilities. The Water and Sanitation for Health Facility Improvement Tool (WASH FIT) was introduced by WHO, and one district hospital is running a pilot.

In conclusion, there are integrated WASH action plans as part of the national environmental health plan for the next decade. Multisectoral collaboration is vital for implementation and joint monitoring. WASH that includes health-care waste management should be part of the UHC policy. This, along with mainstreaming WSPs, will sustain the progress in the sector, as well as benefit neglected areas for national implementation of WASH improvements.

Case study 2: Mongolia

Most health-care facilities are in urban areas. A big gap still exists between urban and rural areas, with just 43% of rural populations having access to sanitation. Three quarters of sanitation facilities in health-care facilities are open pit latrines. WASH remains a low priority among government and donors. Given the large staff turnover following the election in 2016, much advocacy is needed to explain the benefits of WASH. However, since 2005 the Government has carried out a number of projects, especially in rural areas, to improve WASH. The Law on Hygiene, Disease Prevention and Health Promotion was approved in 2016 to include a chapter dedicated to WASH.

Before 2014, a national programme on improvement of WASH included schools, dormitories and health-care facilities. WSP guidance has been scaled up to small community settings, including *soums*, schools and health-care facilities. Environmental hygiene requirements for health-care facilities were adopted in 2013, including WSPs. A good cross-section of health-care facilities were assessed according to 74 indicators and the Ministry of Health accredited 213 of them.

Sanitation is the big challenge for achieving SDG 6 everywhere in Mongolia. Parliament is only addressing this issue now due to the traditional acceptance of pit latrines as part of the nomadic lifestyle. Technical requirements (standards) were set in 2015 nationally, including for health-care facilities in 2016. Nine health-care facilities were awarded extra budget from the Ministry of Health.

An international consultation meeting on sanitation in cold climates is planned in March 2017 to increase investment from the safety and hygiene perspective. It is difficult to run open pit latrines in *soum* health centres in winter. All health-care facilities are developing improvement plans and must work with the country's design and construction sector to build cold climate facilities at the local level.

2.4.4 Climate-resilient WASH

Nepal has 92% coverage now and basic water supply coverage of 83%. There are 53 000 water supply schemes in Nepal but only 60% are functional. The severe earthquake of 2015 affected almost 8000 schemes. In view of the SDGs, and to make the country climate resilient in the wake of the recent disaster, WSPs were to be converted to climate-resilient safety plans.

Pilot projects were conducted in four districts in different regions: the Himalayas, Kathmandu and two in the Terai plains. The sources are groundwater in the plains and surface water in the mountainous districts, some with treatment plants and some without. Water quality testing kits were provided in all projects.

Climate-resilient WSPs follow the same approach as conventional WSPs, but they also encompass quantity. Increase in temperature can alter the hydrological cycle to more extreme precipitation, which leads to increased injury and property damage, runoff increase and sewage overflows, and outbreaks. Other effects are eutrophication and stratification. From its experiences, Nepal prepared a climate-resilient WSP. This approach integrates climate-related risks and therefore considers climatic conditions. The system analysis looks at any sources that have dried up and areas prone to floods or landslides. New hazards or events are anticipated in risk analysis and climate change is accounted for in assessing the severity and likelihood of hazardous events. The WSP requires climate-resilient structures and awareness programmes. Water quality and meteorological data are also recorded. Although need for climate resiliency is more acute in certain areas or countries than others, such as the Pacific island countries, integrating this additional risk in the WSP approaches and SDG programme design and implementation will be very beneficial for all.

2.4.5 Panel discussion: Climate resiliency and WASH safety planning in vulnerable and low-resource settings

A panel of representatives from Samoa, Tonga, Vanuatu, UNICEF Fiji and the WHO Suva office considered the following:

(i) How does climate change affect the WASH sector in your country and impact on public health?
(ii) Do you agree that WSPs or SSPs can help to strengthen WASH sector resiliency to climate change?
(iii) In supply systems where climate has been addressed, has there been action on slow-onset factors like rainfall pattern change?

The Pacific island countries, with support from WHO, have come up with two major proposals to the Global Environment Facility(GEF) and the Green Climate Fund (GCF) on building climate-resilient health systems. The GEF project will cover the least-developed countries of Kiribati, Solomon Islands, Tuvalu and Vanuatu for five years with US$ 17.85 million starting from 2018. A similar project covering all Pacific island countries is currently being developed by WHO in collaboration with UNICEF, United Nations Population Fund (UNFPA) and UN Women in Suva, Fiji.

If WSPs can be positioned as contributing to national climate change commissions and plans, this could support the sustainability of the WASH sector. By tapping into the abundant resources of climate-related funds and programmes, the WASH sector can not only maintain the sustainability of its programmes implemented so far and therefore extend national implementation, it can also provide countries with water resources and make them water secure. This is particularly important for low-resource Pacific island countries that also struggle with relatively low levels of inland water resources. Other non-island countries that are prone to changing climates and disasters could also benefit tremendously from such approaches.

CL-SWASH project

The Neglected Tropical Diseases Unit of the WHO Regional Office for the Western Pacific introduced the community-led initiative to eliminate schistosomiasis and reduce soil-transmitted helminthiases (CL-SWASH) project in Cambodia and the Lao People's Democratic Republic, which used WSPs in the elimination of schistosomiasis in this Region by breaking transmission, as mass treatment alone was insufficient for elimination. Eliminating open defecation and other WASH improvements were clearly a prerequisite.

The work has involved multisectoral task forces to build on national efforts to set up WSPs. The focus on increasing health literacy in the community could improve self-diagnosis: the community conducts an assessment, then a team is assembled to survey the WASH situation, map the village, identify the hazards, prioritize risks, establish risk control measures, and then monitor progress and revise as needed.

This approach and development of training manuals can be applied in other settings. To maintain sustainability, the project is linking to the cause of ending neglected tropical diseases (NTDs) and deworming programmes. There is now discussion of expanding to other endemic sites in the Mekong and to other diseases in the Philippines or Viet Nam. An integrated multisectoral approach involving other areas and ministries could be beneficial, especially in disaster-prone areas or in the wake of disasters. WASH and NTD mapping are important considerations for WHO in its WASH inequality activities.

Group work: Strategic planning for attainment of SDG 6

Groups were asked to come up with a regional plan for five areas: WASH in health-care facilities (led by Malaysia), WASH in emergencies (Philippines), equity (Pacific island countries), contamination and water quality (China), and urban wastewater (Viet Nam).

UNICEF emphasized that proper WASH is crucial in schools, particularly in places where young women are skipping school due to menstruation.

While Malaysia may be in the last mile in terms of progress in WASH, others are still working on baseline needs. For example, 100% WASH coverage by 2030 remains a challenging goal for many countries in the Region.

Cities are a very challenging aspect of the SDGs. SSPs are required, but there must be very careful communication with the public, such as in the case of using wastewater in food production.

2.5 Session 4: National policy setting: embedding risk management strategies in national WASH programmes

Two sessions were held in country groups, one dealing with streamlining national budget allocations for WASH targets and strategies to fill gaps through cooperation with development partners. The other session was on how to evolve the WQP into sustainable national programmes that can maximize impact for the SDGs.

The following are some of the issues arising from the discussion:

- The Philippines has already done much work and the Mekong countries are starting to think about linking sustainability activities to the SDGs, but getting political buy-in is a challenge. The Lao People's Democratic Republic had already set the DWQS and embedded WSPs but has not yet started with SSPs. Training and auditing have started. The most challenging thing is to put it in the national strategy, for which higher-level advocacy is needed. Another challenge in the country is the 8th National Socio-Economic Development Plan in which the SDGs are not yet included in detail; however, the team would try to identify sector indicators and reach the targets anyway.

- In Cook Islands, the challenges are capacity at different levels and sustainability of implementation.

- Cambodia is already trying to align with the SDGs by reaching all with "safely managed" water that is affordable. The big challenge is capacity to monitor drinking water quality, and this needs a lot more support.

- Nepal's national goal is to have 100% coverage on basic water and sanitation by the end of 2017, to be achieved with improved latrine sanitation. Sanitation coverage today is about 83% and this was achieved because of a mass movement, but there is no government funding. More than 38 districts have already declared the universal basic goal met.

- It was stressed that definitions have to be shared for global data reconciliation. The SDGs and their indicators are fixed at the global level and the 2015 JMP report shows that in Nepal there is 32% open defecation, so it has not met the sanitation target according to the international standard, making only "good progress" on the MDG.

- In China, there has been tremendous progress with a holistic approach and massive investment in the sector. The elimination of poverty should be sustainable and the Government will coordinate to solve this problem. Water safety planning is included in the plan. If the WASH goal is not met in a province, its governor is not promoted.

- Malaysia is only 30% rural, so the focus is on urban areas where the building of water and sewerage infrastructure is under various agencies other than the Ministry of Health, the regulator of water quality. The system improvements are to be carried out by the government-owned water companies. They must be urged to make WSPs part of their business structure.

The Ministry is looking more at how to develop the WSP document, including compliance, auditing and verification. Current WASH documents do not elaborate much on the SDGs, which require further advocacy.

- The Philippines has defined the national targets related to the SDGs. Some challenges are:
    - how to get buy-in from local CEOs and regulators as well as funds to meet targets,
    - how to monitor in terms of integrating all indicators in national surveys or administrative monitoring systems, and
    - how to build the capacity of all water service providers to meet the SDG targets.

- Tonga found it challenging to try to link the national water strategic plans to the SDGs. The standards are much higher than for the MDGs and the country would need technical assistance to improve local capacity.

- In Cambodia, "safely managed water" coverage is below 1% in rural areas. Multiple types of ambitions – like "MDG continuity" – are possible, but no national government should overlook the SDG ambitions. Excreta management is important to avoid polluting water bodies.

- Very clear definitions are crucial to understanding the requirements and specific standards for the SDGs, including operational definitions, such as "free from chemical contamination". The JMP website is a good reference.

- In Mongolia, the challenge is the low quality of the water supply. There are private and government water suppliers, but WSPs only exist for government water supplies so far.

- On ways of overcoming challenges for continuity, the Philippines identified a monitoring system for SSPs. The water quality standards already have a health-based target that utilities should meet – being *E. coli* free and available 24/7 – to check that they are compliant with the SDGs. The challenge is to get local governments to integrate the SDGs into their WSPs, so an audit system will be developed and advocacy to policy-makers performed for funding.

One question that was raised was how WHO or other partners can help with the continuation strategy, likely including a link to the WASH SDG targets. The responses were:

- The Ministry of Health is the authority to propagate WSPs and the vision for the future. It should not just stop at preparing the document; it needs to train a group to verify the standards, then develop water safety planning to a stage where it is recognized as an important tool to be used by all relevant parties. Stakeholders need and are requesting the full set of WSP documents. For example, water utilities need them to share with their management for system improvements.

- All the developed countries have grading institutions, but that is not possible in many developing countries. Guidelines are needed for training in water safety planning as a certification.

- Auditing is vital to complete WSPs. Previous publications have been quite academic; complete practical documents based on regional examples would be better. The upcoming manual would be much more relevant to countries of the Region implementing WSPs.

- In fact, the best learning comes from auditing that is open, honest and frank. An expert comes to audit 1–2 suppliers, followed by training that can be done based on the findings. There are 1000 WSPs in the two WHO regions, but no one has a picture of how well they are working. WHO should report back on auditing so far and on how programmes have developed. WHO

has a practical guide for auditing that most countries find very helpful. The information from audits is also invaluable for advocacy.

- The new auditing policy calls for a three-year period before auditing, which may succeed if there is a national guideline. WHO can support by teaching countries how to conduct an audit. Phase 1 is auditing of the WSP document (for which there are WHO guidelines) and phase 2 is auditing the implementation (over the next few years). The Philippines uses the term "external review" because it is an open and friendly exercise, not a regulation.

- If a WSP is implemented, it can be audited. A group of Indonesians not involved in WSP were trained by being given a copy of an existing WSP to audit. A Skype call may be needed to inform the audited party – it could be very informal and internal – before exposure to external reviewers.

- There are two kinds of internal reviews – for the plan on a regular basis and the other kind after an incident. The same template can be used, but the purpose is different. External auditing is more like an examination. Internal formal auditing is unlikely to happen because it need not be publicized.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

Water safety planning has been proven to be a very successful risk-based approach to delivering safe water from catchment to consumption.

At least 50 million people in the 15 countries of the Partnership now have safer drinking water because of this project. National scale-up as well as surveillance and monitoring in the former Partnership countries will be a key consideration in the continuation strategy.

Good sanitation is already a key component of the risk management approach of WSPs. Extending this approach to risk management along the sanitation chain not only would have a multiplier effect, but also would help achieve the SDG targets on both drinking-water and sanitation.

Needs assessment for continuing and sustaining WSPs and WASH safety planning in general is key to transforming this successful project into national programmes, and to helping to achieve the WASH SDG targets in the Member States.

At the end of the meeting, representatives from all the countries participating in the WHO/DFAT Water Quality Partnership in the Western Pacific Region (Cambodia, Cook Islands, the Lao People's Democratic Republic, Mongolia, the Philippines, Samoa, Tonga, Vanuatu and Viet Nam) agreed to take on the continuation strategies developed as part of this WQP project: (i) to develop national plans to strengthen WASH in health-care facilities and (ii) to develop national plans to strengthen WASH in emergencies and health sector resilience plans to address climate change.

3.2 Recommendations

3.2.1 Recommendations for Member States

(1) Member States agreed to urgently complete their continuation strategies by leveraging the lessons learnt, identifying the gaps, actions and activities needed, as well as technical and financial partners and the cost of continuation. This can be the basis for future resource mobilization.

(2) Member States agreed to consider WSP surveillance as a key link to water quality monitoring for the SDGs, a driver of progress towards delivery of safe water.

(3) Member States agreed to build other aspects of SDG 6, such as water availability and sanitation safety, into safety planning–driven WASH SDG strategies.

3.2.2 Recommendations for WHO

(1) WHO is requested to support Member States in completing the continuation strategies, and help them articulate their resource and knowledge gaps to build WASH SDG strategies.

(2) WHO is requested to provide tools, guidance and advice on sanitation safety planning.

(3) WHO is requested to seize the opportunity to fill gaps regionally in the SDGs in the area of WASH in health-care facilities to fulfil both UHC and sustainable development agenda requirements, and establish more robust indicators/surveillance for disaster risk reduction/climate change adaptation.

ANNEXES

Annex 1. List of participants

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Annex 2. Programme

Day 1: 20 February 2017 (Monday)

Time	Activity	Responsible Person/s
08:00–12:30	Closed meeting of DNH Director and WHO meeting secretariat	Dr Susan Mercado, Director, Division of NCD and Health Through the Life-Course, WHO Regional Office
12:00–13:30	Lunch break	
13:30–14:00	Registration	
14:00–14:30	Opening session	
	Welcome	Dr Shin Young-soo, Regional Director, WHO Regional Office for the Western Pacific
		Representative of Australian Department of Foreign Affairs and Trade
14:30–14:40	Presentation of objectives and expected outcomes	Dr Susan Mercado
		Dr Nasir Hassan, Coordinator, Health and Environment, WHO Regional Office for the Western Pacific
14:40–15:00	Group photograph and mobility break	
	Session 1: Scene setting and lessons learnt from the Water Quality Partnership (WQP) project	
15:00–15:20	What is Water Safety Plan (WSP) and how can it improve health?	Dr David Sutherland, Technical Officer, Water, Sanitation and Environmental Health, WHO Regional Office for South-East Asia
15:20–15:40	The road to safely managed WASH through WASH safety planning	Mr Rifat Hossain, Technical Officer, Water, Sanitation and Hygiene, Department of Public Health and Environment, WHO headquarters
15:40–16:30	Group work: Lessons learnt from WQP	
16:30–17:00	Group work presentations	
17:00	Welcome reception	

Day 2: 21 February 2017 (Tuesday)

Time	Activity	Responsible Person/s
08:30–08:45	Summary of day 1	Mr Richard Bradford, Consultant, Health and the Environment, WHO Regional Office for the Western Pacific
	Session 2: Sustaining WSPs in the era of Sustainable Development Goals	
08:45–10:30	Developing national drinking-water quality standards	Mr Terrence Thompson, Consultant, Health and the Environment, WHO Regional Office for the Western Pacific
	Case study 1: Philippines	Representative from the Philippines
	Case study 1: Viet Nam	Representative from Viet Nam
10:30–11:00	Mobility break	
11:00–11:30	Strategies for sustaining WSPs	Dr David Sutherland/Ms Angella Rinehold
11:30–12:30	Panel discussion: Embedding safety planning in national policies and linking to SDG6	Panellists from: Bhutan Cambodia Cook Islands Lao People's Democratic Republic Republic of Korea Viet Nam
12:30–13:30	Lunch break	
	Session 2 (cont.): Sustaining WSPs in the era of Sustainable Development Goals	
13:30–15:00	Group work: How WSP country continuation strategies links to WASH Strategies globally, including the SDGs?	
15:00–15:30	Mobility break	
15:30–16:30	Group work presentations	
16:30–17:30	Introduction to sanitation safety planning	Representative from the Philippines

Day 3: 22 February 2017 (Wednesday)

Time	Activity	Responsible person/s
08:30–08:45	Summary of day 2	Mr Terrence Thompson
	Session 3: Strategic planning for attainment of SDG 6	
08:45–09:00	Sanitation safety planning for SDGs	Mr Jose Marie Lim, Consultant, Health and the Environment, WHO Regional Office for the Western Pacific
09:00–10:30	WASH in health-care facilities	Mr Terrence Thompson
	Case study 2: Lao People's Democratic Republic	Representative from the Lao People's Democratic Republic
	Case study 2: Mongolia	Representative from Mongolia
10:30–11:00	Mobility break	
11:00–11:20	Climate-resilient WASH	Temporary adviser from Nepal
11:20–12:30	Panel discussion: Climate resiliency and WASH safety planning in vulnerable and low resource settings	Panellists from: Cook Islands Samoa Tonga Vanuatu UNICEF Fiji WHO DPS
12:30–13:30	Lunch break	
	Session 3 (cont.): Strategic planning for attainment of SDG6	
13:30–15:00	Group work: Developing strategic plans for attainment of SDG6	
15:00–15:30	Mobility break	
15:30–16:15	Group work (cont.)	
16:15–17:00	Group work presentations	

Day 4: 23 February 2017 (Thursday)

Time	Activity	Responsible Person/s
08:30–08:45	Summary of day 3	Mr Jose Marie Lim
	Session 4: National policy setting: embedding risk management strategies in national WASH programmes	
08:45–10:00	Plenary discussion: How to streamline national budget allocations for WASH targets and strategies to fill gaps through cooperation with development partners?	Facilitated by Mr Rifat Hossain
10:00–10:30	Mobility break	
10:30–11:30	Plenary discussion: How to evolve the WQP into sustainable national programmes that can help achieve the SDG targets?	Facilitated by Mr Rifat Hossain
11:30–11:45	Summary of meeting recommendations	Mr Rifat Hossain
11:45–12:00	Closing session	Dr Susan Mercado/ Dr Nasir Hassan

Annex 3. Country outputs: Top Water Quality Partnership achievements and challenges

Cambodia

Highlights

- Mainstreaming WSP into national policy strategies/national action plans/guidelines (because WSP approaches were accepted by government)
- Baseline and basic assessment tool (because it had partner support, both technical and financial)
- The WSP was integrated into operational plans (because of government commitment)

Challenges

- Human, technological and financial resources (because of new approaches and limited tech/high turnover of staff and decision-makers, capacity of core trainer group limited)
- Collaboration and cooperation (because of competing priorities, and lack of understanding that water quality at tap is not only consideration in WSP)

China

Highlights

- Cooperation between ministries (intensified capacity)
- Risk-based monitoring systems (high coverage and complementarity)
- Standards updated

Challenges

- How to close the gaps among related sectors
- Policy development and information sharing

Cook Islands

Highlights

- Two WSPs in three years covering 80% of the population of Rarotonga and Aitutaki
- Policy and standards developed including WSPs – policy now in Cabinet
- Sewage and Sanitation Regulations 2014, Sewage Policy 2016

Challenges

- Monitoring and data collection in outer islands – high cost and irregular transport
- Capacity of staff to implement – lack of qualified people to carry out WSPs (including depopulation of trained staff)

Lao People's Democratic Republic

Highlights

- DWQ standard approved and implemented, making WSP mandatory for all water suppliers (water quality surveillance including direct assessment and WSP auditing work conducted nationwide)
- WSP advocacy at each level, education of water supply authorities leading to 17% coverage of total population (training for operators and key stakeholders in all provinces and development of master trainers; numerous reports submitted to authorities to gain support)
- Multisectoral cooperation both urban and rural and across sectors, e.g. NUT and NTD (health, public works and transport, education, natural resources and environment all working closely for WASH)

Challenges

- High rural population means low total coverage
- Incorporating climate change risks into the WSP programme

Malaysia

Highlights

- Systematic implementation (strategic plan agreed by stakeholders)
- Technical assistance of WHO/Regional Office (WHO remains strong influence for MOH and national programme)
- Good understanding with stakeholders (establishment of interagency committee on WSP)

Challenges

- Sustainability of WSP (implementation of the prescribed actions)
- Standardization, verification and auditing (varying capabilities of water suppliers)
- Regulator (MOH) needed training, knowledge of health risks and funding (to verify WSP, promote concepts)

Mongolia

Highlights

- 70% of the total population benefitted from WSPs in four years (because just a few large state water suppliers, it is institution-oriented, and capacity was built well, early)
- Legal framework greatly strengthened since 2012 and WSP now mandatory (engagement of all stakeholders and leadership of MOH)
- Ulaanbaatar City WSP with Water Supply and Sewerage Authority sustainable with three-year investment (good model pilot project, ownership considered from beginning, strong advocacy)

Challenges

- Small community WSPs not scaled up (time insufficient, sparse population)
- Water laboratory capacity for internal surveillance/monitoring (budget, lack of capacity in rural areas)

Philippines

Highlights

- National policy on WSP for all water service providers (provided legal basis for WSPs everywhere)
- 10 models for different provider types (guidance for policy development)
- Partnership with different agencies (established networking and synergy for resources (including staff)

Challenges

- Availability of WSP experts at all levels (accreditation of experts and training institutions a work in progress)
- Availability of water laboratories (local government-level labs not sustainable, private labs remote)

Samoa

Highlights

- Access to safe water (more people accessing treated water from Samoa Water Authority (SWA) with 10 villages gaining WSPs, four in process and four under development)
- Improved infrastructure with upgrading of schemes and water treatment plants (eight new plants from SWA, 21 upgrades and 34 independent water schemes)
- Improved water quality monitoring and improved collaboration among stakeholders (separate division in MOH; ongoing water quality monitoring results reflected improvement; Water Sector Coordination Unit improved collaboration and coordination)

Challenges

- Land issues with culture/tradition/village councils (progress of implementation hindered)
- Staff turnover (hindered continuity of programmes)
- Climate change needs to be reflected in WSPs

Tonga

Highlights

- Drafting of eight short versions of WSP (strengthened collaboration of WHO, MOH, village water committees)
- Identification of immediate improvements for the eight villages (WSPs were a platform for partnerships, MOH/WHO funding, community support)
- Water standards drafted, initiated and discussed (applicable standards were needed, and it was an opportunity to channel resources for water management, including WSP)

Challenges

- General community awareness of WSP importance (limited knowledge is pervasive)
- Limited capacity of staff to manage rural water supplies (staff turnover, low number of health inspectors, limited training, lack of funding for daily operations)
- Inefficient village water committees (some not proactive enough to work on WSP)

Vanuatu

Highlights

- 126 WSPs developed, 40% implemented and 60% in progress (thanks to seven successful pilot sites, political will and Cyclone Pam recovery programme)
- National quality standard finalized (political will)
- Merging of WSPs with the drinking-water security plan (need to achieve the coverage target of SDG)

Challenges

- Natural disasters affected systems that established WSP
- Failure to capture traditional knowledge (some plans did not account for knowledge of alternative adequate water sources)

Viet Nam

Highlights

- Institutionalization of WSP with legal basis (Circular 08 on WSP implementation, Circular 50 on Water Quality Monitoring and Surveillance)
- Recognition by the Government for scaling up WSPs (National Program for Water Safety approved by Prime Minister)
- Setting up firm foundation for sustainable WSP (setting up training component, developing guidelines and auditing scheme, setting up demonstration WSP for replication)

Challenges

- Implementation of WSP in rural areas (too many small water suppliers, lack of resources to scale up)
- Lack of highest legal basis for WSP (due to lack of drinking-water law, suppliers lack resources to go for WSP since water tariffs do not cover costs of implementation; no auditing scheme can be built without a law)

Annex 4. Country strategies on water safety plans and water sanitation and hygiene: from MDG to SDG

MDG starting point	SDG 2020 vision
Cook Islands	
Quality Water – no legislation or policy in place Sanitation – Regulations and codes in place	Robust regulatory regime Effective population-based services All communities engaged Standards including disinfection and fluoridation for all sources
Efficiency Tank subsidy for outer islands No system design	Modern and effective system design Incentives for good water use and compliance Water always available
Equity Untreated water supplied free Access for everyone, no discrimination	Water and sanitation for all Financial protection for vulnerable Users pays in place
Accountability Responsibilities not clearly defined around water, M&E poor for water or sanitation	
Sustainability and resilience Public health prepared for bare minimum Community capacity low No adaptability or sustainability	Well-coordinated disaster management plan More desalination machines available Wastage minimized
Samoa	
Quality Low capacity to monitor/manage information – labs, staff, funding, arrangements Health Ordinance 1959 only policy	High capacity Harmonization of policies so WSP is embedded
Efficiency Government system – decentralized environmental health officers Existence of cost-sharing projects (sanitation)	Clear roles Integrated approach
Equity Not an issue	No one is left behind
Accountability No clear delineation of roles within Government WASH not a focus	Centralized and good coordination at national level
Sustainability and resilience Project-oriented Lack of ownership Lack of consideration of climate variability	Ownership and political will Elements of resilience integrated

Nepal	
Quality No concern about quality No WQ standards	WQ standard fully implemented 100% safe and high level of service
Efficiency Only basic service level Coverage: 78% for water, less than 40% for sanitation	All WSPs functional, integrated nationally Universal coverage of water and sanitation
Equity No legal document	Right to basic water and sanitation in new constitution
Accountability No dedicated ministry No legal framework	Dedicated ministry formed for water and sanitation
Sustainability and resilience Very poor sustainability No responsibility assigned for resilience	Climate-resilient WSPs fully implemented under MOH responsibility
China	
Quality	Multisectoral cooperation Systems merged through information sharing
Lao People's Democratic Republic	
Quality Regulation does not include WSP	Safety planning embedded in regulation Enforcement is strong Effective and responsive individual and population-based services Increased engagement
Efficiency Substantial efficiency	Bidding and feasibility studies
Equity Substantial equity	Highly inclusive
Accountability Ministry of Public Works and Transport addresses urban population Ministry of Health addresses rural	Relevant and assigned ministries' accountability maintained
Sustainability and resilience Partial sustainability Resilience work beginning	
Philippines	
Quality National regulation available Limited WASH services Limited engagement with community	Universal safe WASH coverage, 24/7 and affordable
Efficiency System not in place	Professionally managed WASH system
Equity Low coverage of WASH access	WASH services for all

Accountability Fragmented leadership	Accountability of local governments, communities, water service providers and national agencies
Sustainability and resilience Inadequate capacity of community to handle WASH	Resilient WASH systems
Malaysia	
Quality Water – 70% coverage of safe water, 23% of improved water	Safe water supplied to more than 90%, improved is 10–15% Sanitation: NEHAP used to work with other parties to improve SSP well accepted
Efficiency Tank subsidy for outer islands No system design	Risk management forms part of WASH planning and implementation
Equity Untreated water supplied free Access for everyone, no discrimination	Pockets of "difficult" areas with special assistance to poor, aboriginal people and remote areas
Accountability Responsibilities not clearly defined around water, M&E poor for water or sanitation	Laws and regulations on WASH enforced Public awareness high Polluter pays principle
Sustainability and resilience DWQS programme being carried out with some limitations – "preventive" Sewerage/sanitation is lagging compared to water sector	WSP/SSP recognize readiness and make contingency action
Viet Nam	
Quality Water – no legislation or policy in place Sanitation – Regulations and codes in place	
Efficiency Tank subsidy for outer islands No system design	
Equity Untreated water supplied free Access for everyone, no discrimination	
Accountability Responsibilities not clearly defined around water, M&E poor for water or sanitation	
Sustainability and resilience	

Annex 5. Strategic planning for attainment of SDG6: Draft action plans for WASH in health-care facilities in the Western Pacific Region

- The political commitment to reach the Millennium Development Goal (MDG) targets for safe water and appropriate sanitation by 2015 fell short of expectations in the Western Pacific Region. It is estimated that some 86 million people still do not have access to improved drinking-water sources. More than 300 million people lack access to improved sanitation facilities. Twenty million people still practise open defecation, particularly in rural areas. The situation is severe in the Pacific, where access to improved sanitation has scarcely risen from 29% in 1990 to 31% in 2015 – far short of the 2015 target of 65%. Poor water, sanitation and hygiene (WASH) services contribute significantly to the disease burden from malaria, dengue and diarrhoea. In some societies, women – and girls in particular – are doubly penalized. Girls are more likely than boys not to attend school if no sanitation facilities are available. Women and girls are more likely to be in charge of collecting water for households. Moreover, when a child gets diarrhoea, women and girls are more likely to have to stay at home to look after the sick child. The lack of access to sanitary facilities increases the exposure of women and girls to sexual violence.

- In recognition of the importance of WASH in health-care facilities, WASH in health-care facilities is implicitly and explicitly captured in the 2030 Agenda for Sustainable Development. The terms "universal" and "for all" in Sustainable Development Goal (SDG) Targets 6.1 and 6.2 implicitly highlight the need for expanding WASH monitoring from the household to non-household settings, such as health-care facilities and schools, as we progress from the MDG to the SDG era.

- The Western Pacific Regional Framework for Action on Health and Environment on a Changing Planet, approved at the 67th Regional Committee Meeting, urges Member States in the Region to integrate basic environmental health services, such as access to clean air, safe water and basic sanitation, in national health sector development plans.

- The Regional Framework proposes four specific outcomes, including greening of health-care facilities, to be reflected in national, local and facility-based policies, including 100% access to safe water and sanitation;

- In 2015, WHO published a report on *Water, sanitation and hygiene in health care facilities: status in low- and middle-income countries and way forward* that reported studies of WASH in 54 countries, representing 66 101 facilities. Significant findings were as follows:

    - 38% of health-care facilities do not have an improved water source;
    - 19% do not have improved sanitation; and
    - 35% do not have water and soap for handwashing.

- More than 40 countries have not undertaken national assessments to even understand the situation, and hence, they lack information to raise awareness and set targets in pursuit of universal access for WASH in health-care facilities.

- This lack of services compromises the ability to provide basic, routine services, such as child delivery, and compromises the ability to prevent and control infections. Large disparities exist within countries and among types of facilities.

- The implications for health are severe:
    - spread of infections in the very place in which patients are seeking care.

- The implications for dignity are also profound:
    - for example, women who are in labour may need to walk outside the facility to relieve themselves.

- The cost implications have not yet been quantified, but are likely to be significant.

- Achievable, simple and sustainable measures can make an immediate difference.

- This document synthesizes the outcomes of the discussion held at the recent *Regional Meeting Development of Action Plans for Achieving & Monitoring SDG WASH Targets – Lessons from Accomplishments of the WHO/DFAT Water Quality Partnership*, held in Manila, Philippines from 20 to 23 February 2017. In the session on WASH in health-care facilities, Member States have made several recommendations of actions that could be undertaken at the country office and regional office levels to improve WASH in health-care facilities.

1. **Baseline data collection, monitoring and surveillance**:

Actions:

a) Develop or strengthen monitoring and surveillance tools and systems to monitor progress of WASH in health-care facilities:
    - baseline data, indicators and targets of WASH in health-care facilities;
    - monitoring plans of WASH in health-care facilities, including development of survey forms, data collection and analysis, and reporting;
    - concept note on surveillance plans on health outcomes and WASH services in particular, in the event of disease outbreaks.

Outcomes:

    - Baseline data on WASH in health-care facilities developed;
    - Monitoring systems of WASH in health-care facilities established, including tools to monitor the services;
    - Surveillance systems of WASH and health outcomes drafted;
    - Strategy to engage multisectoral collaboration on WASH in health-care facilities developed.

b) Identification of health-care facilities that are at risk and vulnerable to flood, earthquake, landslide, etc. and access of these health-care facilities to WASH.

Outcomes:

    - Comprehensive data related to “vulnerable” health-care facilities and their access to WASH.

2. **Financing (allocating and mobilizing resources) to strengthen provision of WASH services in health-care facilities:**

Actions:

a) Increase and sustain investment and budgets for environmental health policies, programmes and services in national health plans;
b) Develop financial plans to strengthen WASH services in health-care facilities, including budgets for WASH in health-care facilities in the health sector plans or national annual budget plans;
c) Organize partners' meeting annually to support and mobilize resources for WASH services in health-care facilities, including with the private sectors through public–private participation (PPP).

Outcomes:

- Resources mobilized, funds raised.
- Private sectors will be engaged and committed (MNG) staff (Lao People's Democratic Republic).

3. **Policy and regulation (including incentives and sanctions):**

Actions:

a) Develop:

   - national policy, strategy, action plans and guidelines on WASH in health-care facilities;
   - regional guidance on the development of national policies on WASH in health-care facilities;
   - advocacy plans for strategic decision-makers to promote WASH in health-care facilities (MNG).

b) Establish mechanism incentives/disincentives.
c) Develop policy, strategy, action plans and guidelines.

Outcomes:

- Increased budget allocation on WASH in health-care facilities.
- Updated policy documents.
- Regulations and standards developed and implemented.

4. **Cross-sector engagement (including networking with friends and partners):**

Actions:

a) Develop advocacy plans to advocate relevant government departments to strengthen WASH in health-care facilities.
b) Establish working group with development partners on WASH in health-care facilities.
c) Develop plans for collaboration with partners and donors to work on WASH in health-care facilities.

Outcomes:

- Information shared, collaboration improved and overlapping avoided.

5. **Human resources and skills:**

Actions:

a) Develop human resource plans to strengthen WASH in health-care facilities to include staff recruitment, development and training.

Outcomes:

- Qualified and skilled human resources with teamwork approach.

6. **Emergency preparedness (includes budgets in emergencies/disasters):**

Actions:

a) Develop sustainable health-care facilities, including emergency preparedness plans (EPPs) that include budget to address WASH in health-care facilities in emergencies, with support from development partners.
b) Organize simulation exercises in order to check its readiness.

Outcomes:

- Preparedness and responses will be checked and EPPs will be revised.
- All emergency cases will be revised.
- Facilities will be able to sustain core activities during flood or drought.

7. **Technical guidance & tools:**

Actions:

a) Analysis of all possible technologies or options to water supply in health-care facilities (outcome: establish standard operating procedure (SOP) for operation and management of WASH).
b) Develop tools and technical guidelines in local language

Outcomes:

- SOP for operation and management of WASH established
- Increased numbers of trained staff (Lao People's Democratic Republic)

8. **Communication (of evidence, advocacy with strategic stakeholders):**

Actions:

a) Develop communication plans on WASH in health-care facilities with different stakeholders, including the media.
b) Communication tools for WASH in emergencies.
c) Develop website or strengthen social media platforms to promote and communicate about WASH in health-care facilities.

Outcomes:

- Better-informed stakeholders.
- Advocacy meeting and more related stakeholders will implement WASH in health-care facilities.
- Raised awareness at all levels.

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Western Pacific Region