

Second East Asia Ministerial Conference on Sanitation and Hygiene (EASAN-2)



27–29 January 2010
Manila, Philippines

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Organization

The conference was organized through the Philippine Development Forum Sub-Working Group on Water Supply and Sanitation. The Organizing Committee was supervised by a Steering Committee, chaired by the Department of Health of the Philippines, comprising representatives of concerned agencies of the host country, including the Department of Health, the Thematic Working Group on Water, Hygiene and Sanitation of the Regional Forum on Environment and Health, the World Health Organization Regional Office for the Western Pacific, the United Nations Children's Fund, Regional Office for East Asia and the Pacific, and the Water and Sanitation Program of the World Bank, East Asia and the Pacific.

Sponsors and partners:

Department of Health, Philippines

National Economic and Development Authority, Philippines

Department of the Interior and Local Government, Philippines

Department of Environment and Natural Resources, Philippines

Philippine Water Revolving Fund

Center for Advanced Philippine Studies

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Asian Development Bank

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Water and Sanitation Program, World Bank

World Health Organization

United Nations Children's Fund

United Nations Secretary General's Advisory Board on Water and Sanitation

United States Agency for International Development

NOTE

The views expressed in this report are those of the participants in the Second East Asia Ministerial Conference on Sanitation and Hygiene 2010 and do not necessarily reflect the policies of the World Health Organization.

This report has been prepared by the World Health Organization Regional Office for the Western Pacific for governments of Member States in the Region and for those who participated in the Second East Asia Ministerial Conference on Sanitation and Hygiene, which was held in Manila, Philippines from 27 to 29 January 2010.

SUMMARY

The Second East Asia Ministerial Conference on Sanitation and Hygiene (EASAN-2) was held in Manila, Philippines from 27 to 29 January 2010. The conference was attended by more than 160 participants, including high-level delegates from 13 East Asian countries. Donors, nongovernmental organizations, members of the media, private sector professionals and other resource people also attended.

The conference met over the course of three days, and included plenary sessions, several smaller parallel sessions, and a round table of heads of delegations. Each parallel session was presided over by a chair or facilitator. Presentations on country experiences were typically followed by panel-led discussion. A press conference was held following the round table of heads of delegations to communicate the conclusions and key messages of the Manila Declaration on Sanitation and Hygiene in East Asia.

The conference also functioned as a marketplace and fair where exchange of knowledge, experience and expertise could be facilitated, and an exhibition and poster display of products, services and activities was prominently featured in the main conference hall. Technical field visits took place to various sites around Manila, where technical solutions to sanitation challenges were demonstrated.

The general objectives of EASAN-2 were:

- (1) to encourage and support strong commitment to accelerated national action by country governments for attaining the sanitation-related Millennium Development Goals; and
- (2) to promote shared commitments from countries around the region to the development and implementation of effective policies, programmes and partnerships aimed at meeting the sanitation and hygiene objectives for East Asia.

The specific objectives of EASAN-2 were:

- (1) to assess the progress, nationally and regionally, towards attainment of the MDG targets for water and sanitation, and identify priority areas for interventions;
- (2) to increase political awareness on sanitation and hygiene promotion;
- (3) to monitor progress in meeting the commitments of the Beppu Declaration;
- (4) to formulate a further declaration (the Manila Declaration on Sanitation and Hygiene in East Asia) to give fresh impetus to regional commitments for sanitation and hygiene;
- (5) to increase cooperation among the countries of East Asia, including through development of an action plan for regional cooperation to address shared financial, technical, institutional and information issues;
- (6) to clarify the role of the Thematic Working Group on Water, Hygiene and Sanitation in carrying forward the regional sanitation agenda; and

- (7) to identify a core group of sanitation champions who could drive the process of sharing good and innovative practices throughout the region.

The principal outcome of the conference was the Manila Declaration on Sanitation and Hygiene in East Asia, adopted by consensus by the heads of delegations of 13 countries. In summary, the Manila Declaration:

- (1) highlighted the urgent need to accelerate regional action to attain the MDG target for sanitation, and summarized initiatives supportive of such action, including the Beppu Declaration;
- (2) recognized the integral part played by adequate sanitation and hygiene in people's health, well-being, social and economic development, and resilience to climate change;
- (3) reiterated the commitments expressed in the Beppu Declaration;
- (4) expressed commitment to implementing those actions that would enable national MDG-based sanitation targets to be met;
- (5) expressed commitment to furthering regional collaboration and country-level support, including through regular convening of EASAN as the regional platform for cooperation on sanitation and hygiene;
- (6) requested the Regional Forum on Environment and Health to mandate the Thematic Working Group on Water, Hygiene and Sanitation to perform certain roles with regard to facilitating cooperation between East Asian countries on sanitation and hygiene, organization of EASAN-3, and planning and implementation of follow-up action plans.

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Keywords

Hygiene / Sanitation / East Asia

1. INTRODUCTION

1.1 Background

The First East Asia Ministerial Conference on Sanitation and Hygiene (EASAN-1) was held in Beppu City, Japan, on 30 November and 1 December 2007, with the theme “good sanitation, good life”. The conference, which was attended by about 200 participants, aimed to: (1) advocate accelerated national action to attain the sanitation-related Millennium Development Goals (MDG) targets; and (2) promote shared commitment throughout East Asia to the programmes, policies and partnerships required to meet the region’s objectives for sanitation and hygiene.

The principal outcome of that meeting was the East Asia Ministerial Conference on Sanitation and Hygiene Declaration (Beppu Declaration), formulated and signed by 13 ministers of East Asia States, which embodied the regional commitments to action to improve sanitation and hygiene, especially for the 800 million people across the region lacking access to sustainable sanitation.

One of the commitments made in the Beppu Declaration was to “create a regional platform for cooperation in sanitation and hygiene, which would include an East Asia Ministerial Conference on Sanitation and Hygiene to be held in the region provisionally at two-yearly intervals and would build on existing forums, and which would facilitate cooperation among East Asian countries as well as between our region and other regions of the world”.

The Thematic Working Group on Water, Hygiene and Sanitation (TWG-WHS) of the Regional Forum on Environment and Health was instrumental in carrying that process forward, and the follow-up to EASAN-1 was a component of its 2007–2010 workplan. The Government of the Philippines first announced its intention to host the Second East Asia Ministerial Conference on Sanitation and Hygiene (EASAN-2) at the TWG-WHS meeting in Kuala Lumpur in March 2009. With the preparation of its sanitation road map, and the increasing integration of sanitation in the political agenda at different levels of governance, the Philippines was in a strategic position to take the lead in organizing EASAN-2.

Under the theme “building regional cooperation to accelerate progress towards sustainable sanitation”, EASAN-2 took place at a critical time – just over two years after EASAN-1, allowing stock to be taken of the progress of in-country initiatives with barely five years remaining until the MDG target date of 2015, and amid mounting concern that, if current trends continued, the regional MDG target for sanitation would be missed by six percentage points.

1.2 Objectives

The general objectives of EASAN-2 were:

- (1) to encourage and support strong commitment to accelerated national action by country governments for attaining the sanitation-related Millennium Development Goals; and
- (2) to promote shared commitments from countries around the region to the development and implementation of effective policies, programmes and partnerships aimed at meeting the sanitation and hygiene objectives for East Asia.

The specific objectives of EASAN-2 were:

- (1) to assess the progress, nationally and regionally, towards attainment of the MDG targets for water and sanitation, and identify priority areas for interventions;
- (2) to increase political awareness on sanitation and hygiene promotion;
- (3) to monitor progress in meeting the commitments of the Beppu Declaration;
- (4) to formulate a further declaration (the Manila Declaration on Sanitation and Hygiene in East Asia) to give fresh impetus to regional commitments for sanitation and hygiene;
- (5) to increase cooperation among the countries of East Asia, including through development of an action plan for regional cooperation to address shared financial, technical, institutional and information issues;
- (6) to clarify the role of the Thematic Working Group on Water, Hygiene and Sanitation in carrying forward the regional sanitation agenda; and
- (7) to identify a core group of sanitation champions who could drive the process of sharing good and innovative practices throughout the region.

2. PROCEEDINGS

2.1 Opening ceremony

2.1.1 Commencement of the meeting

The Second East Asia Ministerial Conference on Sanitation and Hygiene (EASAN-2) was officially opened on 27 January 2010 by Dr Elisea "Bebet" Gozun, EASAN-2 conference director. The proceedings commenced with the national anthem of the Philippines and an interfaith prayer. She then introduced the countries represented at the conference and the respective heads of delegations. East Asian countries represented were: Brunei Darussalam, Cambodia, China, Indonesia, the Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam.

Dr Gozun also acknowledged the presence of representatives of development partners, government, the media, nongovernmental organizations and business.

2.1.2 Statement by Dr Mario Villaverde, Undersecretary for the Department of Health, Philippines

In his opening remarks, Dr Mario Villaverde, Undersecretary for the Department of Health, Philippines, and Chair of the EASAN-2 Steering Committee, said that the Government of the Philippines, through the Department of Health, was honoured to host EASAN-2. Health departments and ministries across the region had important roles to play in sanitation and hygiene. While some countries had nearly universal sanitation coverage, others were lagging behind the progress necessary to attain the MDG targets related to sanitation and hygiene.

He recalled some of the initiatives that had been taken to address the challenges of sanitation and hygiene, including EASAN-1 in Beppu, Japan in 2007; the International Year of Sanitation in 2008; the Hashimoto Action Plan of the United Nations Secretary General's Advisory Board on Water and Sanitation (UNSGAB), first launched in 2006; and other regional forums and meetings.

Leaders in sanitation and hygiene, he continued, were expected to serve as catalysts for progress, including through exchanging information on best practices. He acknowledged the assistance of partners in supporting regional action, particularly the World Health Organization (WHO), the World Bank and the United Nations Children's Fund (UNICEF). He concluded by expressing the hope that the warmth and hospitality of the Philippines would energize and inspire the delegates as they sought to identify actions that would enable the regional and national Millennium Development Goals to be attained.

2.1.3 Statement by His Excellency Mr Noli De Castro, Vice-President of the Republic of the Philippines

In his keynote address, Mr Noli de Castro, Vice-President of the Republic of the Philippines, welcomed, on behalf of the Philippine people and Government, high-level delegates and other participants to EASAN-2, which, he said, was taking place amid exciting and challenging times. East Asia had shown commendable resilience in the face of the global crisis, and robust fiscal steps and buoyant domestic demand promised to be the foundation of economic recovery in the region, with positive knock-on effects throughout the world economy. While strong demand showed that people in East Asia were engaged in production, consumption, construction and trade, there was another side to the picture – rapid urbanization, which was taking its toll on urban dwellers and on infrastructure, with many systems, including sanitation, struggling to keep pace with fast urban growth. That, in turn, put into question the ability of urban areas to sustain their liveability and quality of life, and threatened personal dignity, labour productivity, and people's mental and social abilities.

In an historical overview, the Vice-President said that the quest for sustainable sanitation was as old as history itself. Most recently, EASAN-1, and the Beppu Declaration, had laid the foundation that was being continued with EASAN-2. Action on sanitation and hygiene went beyond the realm of health concerns and the Millennium Development Goals, contributing also to the restoration of human dignity and the aim of making cities better places to live in. Sanitation and hygiene were no longer an individual concern, and indeed had grown beyond community and national concern to become an interwoven concern at regional level, especially in an era of growing economic interdependence. Giving the example of a 2006 multisectoral summit in the Philippines, in which the Government and private sector entities pledged to work together to accelerate the Clean Water Act of 2004, he said that the quest for sustainable sanitation was only possible through cooperation and partnership. In conclusion, he said that the region had taken a bold and decisive step in convening EASAN-2, which would be of positive benefit to a large portion of the world's population residing in East Asia.

2.1.4 Statement by Dr Esperanza Cabral, Secretary of the Department of Health, Philippines

In her opening statement, Dr Esperanza Cabral, Secretary of the Department of Health, Philippines, said that the importance of sanitation and health could not be overemphasized, with millions dying every year due to diseases that could have been prevented with the provision of safe drinking-water and adequate sanitation. Such a waste of life was unacceptable, and it was imperative that the countries of East Asia, in partnership with international organizations, utilize best practices to meet their goals for sanitation and hygiene, laying the groundwork to fulfil a goal whereby future generations lived happy, healthy and productive lives. Finally, she expressed her hope that the outcomes of EASAN-2 would be translated into concrete actions on water and sanitation, especially for the poor.

2.2 Conference background and objectives

2.2.1 Overview of conference

Dr Villaverde commenced his overview of the conference, on the morning of 27 January 2010, with a stark reminder that the countries of East Asia needed to address the sanitation problems of more than 800 million people who lack access to sustainable sanitation. The need for regional action was embodied in the Beppu Declaration of EASAN-1, and EASAN-2 aimed to explore and identify potential areas for formation of a regional action plan, with a core group of sanitation champions driving the process towards attainment of the MDG targets related to sanitation and hygiene. Such action would be appropriate to the theme of EASAN-2 – “building regional cooperation to accelerate progress towards sustainable sanitation”.

He then summarized the objectives of the conference (as outlined in the “Introduction” section above), and said that the primary outcomes were expected to be as follows:

- (1) Manila Declaration on Sanitation and Hygiene in East Asia;
- (2) draft regional action plan for sanitation and hygiene in East Asia;
- (3) decision on regional platform for cooperation; and
- (4) decision on a Third East Asia Ministerial Conference on Sanitation and Hygiene.

In conclusion, Dr Villaverde briefly outlined the programme of work and organizational framework of the conference, and listed the participating countries and the sponsors who had provided support.

2.2.2 Background to regional status report on sanitation and hygiene

Mr Jin Yinlong, Chair of the Thematic Working Group on Water, Hygiene and Sanitation (TWG-WHS) of the Regional Forum on Environment and Health, gave a presentation on the background to the draft regional status report on sanitation and hygiene, which had been compiled primarily from responses to a questionnaire survey carried out by TWG-WHS for the countries of the region. The strategy of the Regional Forum on Environment and Health, he said, was to promote coordinated interventions, at regional level by conducting regional assessments and providing a framework for cooperation; and at national level by supporting the development and implementation of national environment and health action plans.

The Charter of the Regional Forum on Environment and Health, adopted at the First Ministerial Regional Forum on Environment and Health in Southeast and East Asian Countries in August 2007 in Bangkok, had laid down the principles, vision, objectives, strategies and structure of the Forum, and had created thematic working groups on specific priority issues. Those included, as described in the Bangkok Declaration on Environment and Health, TWG-WHS. The objectives of the three-year workplan of TWG-WHS were: (1) to protect water resources; (2) to improve sanitation; (3) to widen technology choices; and (4) to improve data collection and availability.

The Department of Health of the Philippines had committed to hosting EASAN-2 at the TWG-WHS meeting held in Kuala Lumpur in March 2009, and had requested TWG-WHS to prepare a regional status report on sanitation and hygiene in preparation for EASAN-2. The draft report had subsequently been compiled using information collected from East Asian countries with a questionnaire supplied by TWG-WHS; data on access to sanitation services from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP); and other secondary sources.

2.2.3 Findings of regional status report on sanitation and hygiene

Mr Terrence Thompson, Regional Adviser, WHO Regional Office for the Western Pacific, gave a presentation on the findings of the draft regional status report on sanitation and hygiene in East Asia. Responses to the TWG-WHS questionnaire, as described by Mr Jin Yinlong (section 2.2.2), were received from the following countries: Brunei Darussalam, Cambodia, China, Indonesia, Japan, the Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, the Philippines, the Republic of Korea, Singapore, Thailand, Timor-Leste and Viet Nam.

The basic overall findings were as follows:

- (1) About 62% of the population used improved sanitation facilities, which represented a great improvement from the 48% coverage in 1990 (JMP statistics).
- (2) Approximately 800 million people – mostly the poor living in rural areas and densely populated urban slums – still had no access to improved sanitation.
- (3) The MDG sanitation target for the region, which is 74%, will likely be missed by six percentage points.
- (4) The region was plagued with almost 150 000 deaths and 440 million cases of acute diarrhoea annually (though the latter figure was probably an underestimate due to underreporting).

Using the data supplied, Mr Thompson gave intercountry comparisons of a number of indicators, including causes of death among children under 5 years old; effectiveness of hygiene education programmes; sanitation coverage in schools, health care facilities and hospitals; governmental responsibility for sanitation; and level of training and sufficiency of sanitation personnel. He also drew attention to differences between JMP statistics and official national statistics for urban and rural sanitation coverage, which, he said, was primarily due to differences in the definition of what constituted “improved sanitation”. There was a need for further discussion in the region on what was acceptable or not acceptable access to sanitation, and a need for sound national monitoring systems capable of providing information that went beyond mere coverage to include such issues as legal and institutional arrangements, financing and investment, and capacity-building.

Commenting on the findings, he said that deaths due to diarrhoea were largely preventable; for example, improved sanitation alone could reduce diarrhoeal deaths by a third. While the death rate had been reduced, the decline was largely due to improved case management rather than preventive action. The improvement in sanitation coverage to 62% had been remarkable, given the intense population growth in the region, but two out of five people still lacked access to an improved sanitation facility, especially in cities, where rapid urban growth had placed ever-increasing pressure on infrastructure. The fact that a projection of current rates of improvement would still fall short of the 2015 MDG sanitation target by six percentage points was a cause for concern.

He noted that lack of proper hygiene had a particular impact on children, inhibiting their mental, physical and social development. Key issues to effecting improvements in that area included awareness creation; formulation of a national hygiene promotion plan; inclusion of hygiene promotion in school curricula; hygiene monitoring and evaluation; using different media nationwide; local-level training; and increased investment. Stakeholder participation in planning and implementing sanitation and hygiene programmes was of prime importance. The lack of proper sanitation in many schools in East Asia had a considerable negative impact on education, particularly among girls.

Solving the problem of inadequate provision of sanitation and lack of proper hygiene involved action in several broad spheres, including policies and strategies, the legal framework, the institutional framework, financing (including private sector involvement), marketing of feasible alternatives, monitoring and evaluation, and training and capacity-building, supported by intercountry and interregional action.

In summary, Mr Thompson said that the primary conclusion from the study was that there was an urgent need to organize effectively the institutional frameworks at the national level and establish sound financial mechanisms that would allow effective planning, programming, implementation and monitoring of action to improve sanitation.

2.2.4 Discussion

During the ensuing discussion, several participants observed that few data were presented on sanitation investment (including in research and development) in East Asia. Mr Thompson said that the survey had not succeeded in capturing much information on investment – at country level such data were typically held by different agencies and were not aggregated, making analysis and intercountry comparison difficult. The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and others were working to gather such information but much remained to be done, including strengthening national capacity to capture relevant data, before regional analysis could be effectively undertaken.

On the matter of research and development, Mr Thompson said that investment in that area was generally consistent with a country's overall level of social and economic development, and the challenge lay in how poorer countries could learn or benefit from the research and development being carried out by their wealthier neighbours.

In a related query, a private sector participant asked if any data had been gathered on the willingness of countries to embrace private sector financing and investment as a strategy for attaining the sanitation-related MDG targets. Mr Thompson replied that the development banks may have some information on that matter, and countries with a particular interest in private sector investment could make themselves known. He added that while there was a worldwide trend to devolve sanitation services towards local government and the private sector, personnel in those settings often required further training to prepare them for accepting such responsibility, and there was a need for programmes to build human capacity at the local level.

A representative of the World Toilet Organization said that sanitation provided a wonderful business opportunity for both big business and local producers, given the potential demand. The problem lay in triggering that demand, and much more attention needed to be given not only to different cost options, but also to the design and attractiveness of those options. Another participant drew attention to a 10-step toolkit for developing an effective promotion campaign for water, sanitation and hygiene, available on the WaterLinks website at <http://www.waterlinks.org/promotion>.

Other suggestions regarding areas where additional data could be useful included the contribution of civil society, and the quality and sustainability of infrastructure. Other themes explored in the discussion included the need to look beyond achievement of the MDG targets and to strive towards universal coverage; and the need to be realistic when setting country-level targets, given the variations in local context throughout the region, including great differences in the availability of water.

In conclusion, the main message of the debate was that although a comprehensive and comparable dataset on sanitation and hygiene in East Asia was gradually emerging, there was still a great deal to be done on identifying relevant and significant data requirements and putting in place systems to gather such data in formats that facilitated their analysis and useful application on a regionwide basis.

2.3 Studies to support evidence-based decision-making

2.3.1 Benefit–cost analysis of sanitation options

On the afternoon of 27 January 2010, Ms Almud Weitz, Regional Team Leader, Water and Sanitation Program (WSP) of the World Bank, East Asia and the Pacific, presented the results of a study, under the Economics of Sanitation Initiative, of the benefits and costs of sanitation services in East Asia. For the analysis, pilot studies of the costs of different types of sanitation investments (including dry pit, wet pit and septic tank) in different urban and rural settings were carried out in four countries – Cambodia, China (Yunnan Province), Indonesia and the Philippines.

Given the difficulty of making the case for investment in sanitation above other budgetary options, it was important, she said, to provide policy-makers and decision-makers not only with evidence as to why investment in sanitation made economic sense, but also with evidence regarding the areas where such investment promised the greatest financial and socioeconomic benefits, and how best to convince consumers to invest in sanitation.

She highlighted three key messages from the analysis:

- (1) Not investing in sanitation had significant socioeconomic impacts. Doing nothing was costly, and could amount to a significant percentage of a country's gross domestic product, with significant negative impacts on, for example, health and tourism.
- (2) Investing in sanitation was an efficient use of society's resources. In the countries studied, the benefit–cost ratio ranged from above 1 to as high as 10. While, in financial terms, the start-up costs played a central role in sanitation investment decisions, in economic terms, it was important to focus on the annualized life cycle cost to gain a true idea of the benefit–cost ratio.
- (3) Investments in sanitation should be based on an understanding of economic performance mixed with knowing what was working on the ground. In that regard, a balance needed to be found among a number of factors, including people's preferred sanitation choice, the cost of that choice (taking into account considerations of scale), and the political decisions necessary to realize that choice, given that initial investment cost and length of life led to different annualized life cycle costs.

There were, she said, real-world constraints to full economic benefits that needed to be taken into account, such as disrepair of facilities due to high operation and maintenance costs, and the costs that accrue if facilities were operating at less than full capacity. The second phase of the study considered how to reap the benefits once the initial sanitation investment had been made. It was important, she concluded, to gain an understanding of the factors that might reduce

the effectiveness of investment, and comparative analysis was needed to identify the projects that made most economic sense. Rigorous monitoring and evaluation of sanitation interventions was required to maximize their impacts.

2.3.2 Evidence-based health impacts of sanitation and hygiene on children

Ms Therese Dooley, Senior Adviser, UNICEF, gave a presentation on water, sanitation and hygiene (WASH) and its links with child survival and development. Unsafe water, inadequate sanitation and poor hygiene contributed significantly to under-5 mortality, and were implicated in 88% of worldwide deaths due to diarrhoea. Evidence was emerging that improved WASH, including handwashing with soap, could reduce not only diarrhoeal mortality but also neonatal mortality and deaths due to malnutrition and acute respiratory infection.

Besides diarrhoea, other diseases and infections – soil-transmitted helminths, trachoma, schistosomiasis, lymphatic filariasis, respiratory infections and dracunculiasis – contributed to the WASH-related disease burden, as measured in DALYs (disability-adjusted life years, or number of healthy years lost due to mortality and morbidity). There was considerable variation in the cost-effectiveness of interventions against diarrhoeal disease, as measured in US dollars per DALY averted, with hygiene and latrine promotion, household water treatment, water sector regulation and advocacy, and various hardware solutions all proving considerably more cost-effective than immunization against cholera, rotavirus or measles, or oral rehydration therapy.

Ms Dooley then provided evidence of other results of WASH deficiencies, including stunting in children, retardation of physical and intellectual growth, absence from school, and adverse impacts for people living with HIV/AIDS. In each case, adverse consequences could be reduced with improved WASH. Handwashing with soap was a particularly effective intervention; for example, it could help break the vicious cycle of intestinal infection, diarrhoea and malnutrition that afflicted many children in developing countries. Also, the vast majority of even poor households had soap of some sort.

In conclusion, she used the example of a case study on open defecation to show that individual sanitation practices affect the entire community – not until a village was 100% free of open defecation was a significant reduction achieved in prevalence of diarrhoea.

2.3.3 Discussion

In the ensuing discussion, the presenters responded to various queries. One participant asked Ms Weitz if any benefit–cost analysis had been made of community-led total sanitation (CLTS). She replied that it was included in the studies in Cambodia and Indonesia and the results had been promising. In Cambodia, a comparison had been made of a non-subsidy option (for CLTS) and a donor option (concrete ring given to households). The latter would last longer, but scaling it up to 5 million or 10 million people was not financially feasible. It was often found that CLTS gave households a start in sanitation, and they would voluntarily upgrade after a few years. That issue was relevant to the key message concerning the practical feasibility of options on the ground.

Responding to a query about the calculation of benefits, Ms Weitz said that governments were primarily interested in directly quantifiable financial benefits, and that was therefore the primary calculation, with further socioeconomic benefits added on top of that.

Regarding willingness to pay, Ms Weitz said that governments needed to take account not only of the best sanitation options but also the reality of whether society was willing to pay for them. For example, people may express a preference for wet pits but may only be prepared to

pay for dry pits, a situation that may be resolved either by a decrease in the price of wet pits or an increase in society's willingness to pay. But people's behaviour was by no means predictable, and the study in Indonesia found that people were willing to pay more for upgradable options than they initially reported in market research.

In response to a query about the impact of household water treatment on diarrhoea, Ms Dooley said that a new meta-analysis had found that point-of-use water treatment reduced diarrhoea by about 29% on average.

2.4 Priority areas for regional cooperation

2.4.1 Proposed priorities for regional cooperation: results of the Thematic Working Group on Water, Hygiene and Sanitation survey

Mr Chea Samnang, Director, Department of Rural Health Care, Ministry of Rural Development, Cambodia, and member of TWG-WHS, gave a presentation on proposed priorities for regional cooperation, based on the findings of the regional survey conducted by TWG-WHS. During the presentation, on the afternoon of 27 January 2010, he outlined the main constraints to sanitation and hygiene development in East Asia:

- (1) lack of coordination mechanisms to harmonize rural sanitation development;
- (2) poor operation and maintenance;
- (3) lack of community awareness on the importance of hygiene and sanitation;
- (4) insufficient financial resources for construction and operation of sanitation facilities;
- (5) failure to prioritize sanitation in policies and programmes; and
- (6) poor monitoring and evaluation.

Solving those problems entailed a number of measures, including ensuring health protection and sustainability; introducing approaches and technologies appropriate to cultures and behaviours; developing systems that were affordable, properly operated and maintained; and aiming at universal coverage. That could only be achieved on a regional scale by enhancing cooperation and exchange of information among East Asian countries, including:

- (1) more active role of countries in the collective regional and global efforts;
- (2) more frequent meetings for face-to-face exchanges of information;
- (3) training;
- (4) strengthened mechanisms for exchange of information; and
- (5) joint regional project preparation and implementation.

He then considered the most effective regional platform for delivery of those measures. It was argued that a more efficient use of regional resources could be achieved by streamlining the EASAN and TWG-WHS platforms into one unified regional arrangement for sanitation.

There should be a clear definition of the objectives, scope and mechanisms of a functioning EASAN platform, and provision for adequate technical and financial support. In discussing the scope of the EASAN platform, four main themes required consideration:

- (1) regional forums
- (2) exchange of information
- (3) sector monitoring and assessment
- (4) training.

In conclusion, he outlined four possible scenarios for continuation of EASAN:

- (1) The EASAN process is assumed by the TWG-WHS secretariat.
- (2) EASAN establishes its own secretariat arrangements.
- (3) EASAN has a rotating secretariat hosted by one of the Member States to be established at each regional forum.
- (4) Keep the current approach.

2.4.2 Discussion

Following the presentation, a participant questioned how EASAN could be considered a “platform”, given that it was a regional conference that had met twice, with no existence between those events. She added that, in being country driven rather than donor driven, EASAN-2 was an improvement on EASAN-1, and it was important, at the present conference, to reach decisions on how EASAN would evolve in future, including whether it would be primarily a knowledge exchange platform, the extent to which it would involve commitment by signatories, and the way it would mesh with TWG-WHS.

Another participant said that more study was needed of the proposed scenarios, particularly as regards the budgetary implications. Another supported the idea that there should be a functional secretariat to drive the process while retaining EASAN as a high-level platform; a priority was formulation of a joint workplan so that there was clarity on the activities to be undertaken between conferences, with the development partners playing a significant supporting role.

In summary, Dr Gozun gave a brief historical overview of the process thus far. The Charter adopted at the Regional Forum on Environment and Health in Bangkok in 2007 had laid down the basis of an organizational structure to achieve its objectives, including a Regional Forum with regular meetings, one manifestation of which was EASAN-1. With the Beppu Declaration, countries saw value in regional cooperation, and the Philippines, in collaboration with development partners, had taken the process forward in EASAN-2. One objective of EASAN-2 was to place regional cooperation on a firmer footing, including through formulation of a regional action plan, and the four scenarios for continuation of EASAN had emerged from regional consultations undertaken by the Steering Committee. The heads of delegations would discuss the options at the round table and make a decision on the future form of EASAN.

2.5 Country sharing I: simultaneous workshops

During the country-sharing session, simultaneous workshops took place on four themes:

- (1) institutional arrangements and policy
- (2) financing and resource mobilization
- (3) knowledge products and technologies
- (4) emergency sanitation.

Presentations on relevant issues were made during each workshop, followed by group discussions or activities. A facilitator guided the proceedings.

2.5.1 Institutional arrangements and policy (Facilitator: Ms Rosario Aurora Villaluna)

2.5.1.1 Improving urban and rural sanitation in China

Mr Bai Huqun, Deputy Director-General, Bureau of Disease Prevention and Control, Ministry of Health, China, gave a presentation on improving urban and rural sanitation in China in a holistic manner to speed up attainment of the sanitation-related Millennium Development Goals, which had become a top government priority. There had been a steady increase in rural sanitary latrine coverage; as of 2008, a total of about 150 million such latrines had been built, covering nearly 60% of rural households, about 15% more than in 2000. Higher-quality standards for building rural sanitary latrines had been introduced, with six types of sanitary toilet available. Breakthroughs had been made at the policy level, inspired in part by the International Year of Sanitation in 2008, with rural water supply and latrine improvement included in national public health programmes, and central government financial input increasing from 330 million Renminbi in 2007 to 1.6 billion Renminbi in 2009. Clarification of the roles and cost allocations between central and local government had assisted progress.

With government advocacy, the demand for rural latrine improvement grew, and the supply chain, driven by the market mechanism, included premanufactured products, manufacture of related building materials, building by construction teams, and utilization of treated excreta in wetland systems and for other appropriate purposes, with community participation augmenting the government-led model.

Major components of the system were:

- (1) giving increased attention to integrated rural sanitation;
- (2) offering sanitation infrastructure to people as public products, enhancing the position and role of the government as the principal service provider;
- (3) giving full play to incentives and the initiatives of ordinary people;
- (4) enhancing management and technical guidance.

In conclusion, he said that increased recognition of sanitation as an important index of social and economic development and of the quality of life and health of the population had motivated a great increase in investment in sanitation infrastructure, bold innovations in long-term management mechanisms and implementation of an ambitious action plan.

In response to questions about allocation of responsibilities, Mr Bai Huqun said that the Ministry of Water Resources was primarily concerned with infrastructure construction, while the Ministry of Health dealt with water quality, monitoring and assessment; also, the central government had responsibility for development of the overall framework and priorities and provided half the budget, while local government carried out the work and provided the other half of the budget. With regard to private sector investment, he said that the private sector was encouraged to participate and contribute, and some of the current initiatives were being undertaken by the private sector.

2.5.1.2 Settlement Sanitation Development Acceleration Programme in Indonesia

Mr Budi Hidayat, Director of Housing and Settlement, National Development Planning Agency (*Badan Perencanaan dan Pembangunan Nasional*, or Bappenas), Indonesia, gave a presentation on the Settlement Sanitation Development Acceleration Programme (PPSP), 2010–2014. While sanitation was a crucial component of the National Long-Term Development Programme 2005–2025, public access to adequate sanitation services remained challenging, and acceleration was a necessity. A series of measures, instigated with the Indonesia Sanitation Sector Development Programme in 2006, had demonstrated increasing commitment to sanitation in the country, culminating in the launch of PPSP at the National Sanitation Conference in 2009. PPSP contained a number of targets related to wastewater treatment, disposal of solid waste and drainage. The total investment needed was US\$ 5.5 billion, requiring some innovative funding methods, including a matching grant scheme whereby aid from the central government equalled the amount committed by local government, and performance-based aid to households.

Significant results had been achieved through community-based total sanitation (*sanitasi total berbasis masyarakat*, or STBM), and the National Mid-Term Development Plan targeted 20 000 STBM villages by 2014, supported by the development of norms, standards and guidelines, capacity-building, and advocacy and socialization in localities interested in implementing STBM. Sanitation by communities (Sanimas), characterized by a demand-responsive approach, community participation, a self-selection process and choice of technical options, had also shown rapid growth in recent years.

In response to a question on the Indonesian government's policy on providing water and sanitation services to slum dwellers, Mr Hidayat said that it was done principally through nongovernmental organizations, which were closer to the people. Tariffs were cheaper for slum dwellers.

2.5.1.3 Unified sanitation in Viet Nam

Mr Pham Khanh Toan, Deputy Director-General, International Cooperation Department, Ministry of Construction, Viet Nam, gave a presentation on unified sanitation, an essential approach for sector sustainability in Viet Nam. He said that a number of developments had threatened the country's ability to meet its MDG targets, including rapid population growth, urbanization, industrialization and institutional reform, all of which had put water resources and the environment under pressure. He outlined the current situation for urban waste management, with most provision using septic tanks and pit latrines, and sewerage generally inadequate. Urban sanitation companies were institutionally and financially weak, with low cost recovery. In rural areas, 59% of households had access to hygienic sanitation facilities. Private sector participation in the sector was very limited.

To address the situation, a unified sanitation strategy (U3SAP) had been developed with high-level impetus. The strategy involved the development and progressive application of an integrated programme for accelerated delivery of sanitation services in both urban and rural areas, embracing activities related to the policy and legal framework, capacity-building and sector finance. The expected outputs of U3SAP were a practical action plan; sanitation advocacy

and communication systems; and piloting the unified sanitation plan at city and small town levels. The adoption of U3SAP was scheduled for December 2011. The strategy was ambitious and broad based, including industrial, agricultural, domestic and service sectors, and the phased approach would focus initially on wastewater management, solid waste management and drainage. An Interministerial Steering Committee, supported by consultants, would oversee the process.

In response to a question on the time-frame for implementation of the unified sanitation approach in Viet Nam, Mr Pham Khanh Toan said that the plan was still in its preparatory stage and would be ready for implementation in 18 months.

2.5.1.4 Policy towards universal sanitation coverage in Thailand

Mr Twisuk Pungeng, Senior Technical Adviser, Department of Health, Ministry of Public Health, Thailand, gave a presentation on policy towards universal sanitation coverage in Thailand. He showed how earlier policies, programmes and institutional changes, from the 1960s onwards, had assisted evolution towards the current status of 100% sanitation coverage. Factors leading to that outcome included explicit, strong, extended national policy; systematic capacity-building; strong community participation; sensible budget management; development and application of appropriate technology; multisectoral collaboration; and efficient monitoring and evaluation.

Lessons learnt from successful sanitation and hygiene programmes included the following:

- (1) Participation of all stakeholders was essential from the beginning, with the coordination mechanism established at the policy-making level.
- (2) Outstanding performance should be recognized and rewarded.
- (3) Follow-up and monitoring meetings should be held periodically at senior management level.
- (4) Good-quality sanitation was an important selling point for tourism and business.

The aim now is to build on the achievements by focusing on quality, with a target of 90% of public toilets being healthy, accessible and safe by 2012. The programme would be supported by promotion of good health behaviours, and assistance to local authorities in effective human waste management.

Universal sanitation coverage was achieved within the context of the Sustainable and Ecological Sanitation Programme (2009 onwards), which took into account climate change and the energy crisis and which had a strong “green” component, with the initial letters of “GREEN” standing for garbage and waste disposal, restroom improvement, energy saving (including through use of alternative energy), environmental management and nutrition improvements. A related “clean” strategy was also in place, with a focus on hospitals.

In response to a query about criteria for equitable allocation of funds, it emerged that none of the presenting countries had clear guidelines on such criteria. Some discussion ensued on the role of various ministries in setting criteria and other institutional matters, with the facilitator observing that, in the four presentations, the ministry of health was generally the driving force behind sanitation issues, though detailed institutional arrangements and policies varied.

2.5.2 Financing and resource mobilization (Facilitator: Ms Nene Narvaez)

2.5.2.1 Sanitation strategy and financing in Cambodia

Mr Chea Samnang, Director, Department of Rural Health Care, Ministry of Rural Development, Cambodia, gave a presentation on the sanitation strategy and financing in Cambodia. He said that Cambodia had developed its National Rural Water Supply and Sanitation Strategy as a means to achieving its goal of 100% sanitation coverage by 2025. The strategy served as a guide to all stakeholders in the sanitation sector and adopted a fully participatory process.

A number of constraints hindered progress in the sector, including low demand due to poverty and lack of awareness, limited supply and technology choices, uncoordinated and unclear strategic planning at sector level, geographical factors such as climate change and flooding, limited capacity and finance, lack of evaluation of cost-effective and appropriate approaches, and the difficulty of sustaining behaviour change. The strategy had aimed to embrace stakeholders at all levels, with national government setting policy and defining roles and responsibilities, and had recognized the need to proceed as best as possible in the face of complexity and uncertainty, rather than holding out for perfect solutions.

Achieving universal coverage by 2025 was estimated to cost US\$ 16 billion, beyond existing budgetary resources. There was a need to increase national budget contribution for sanitation to 1%–3%, in line with other countries of the region, and to mobilize sanitation funding so that it reached the poor. Innovative approaches to utilization of public funds had been adopted, including cash transfers and demand-side incentives. Mr Samnang presented three programmes as examples: (1) the Asian Development Bank's Tonle Sap Project, which subsidized dry latrine pit construction with a varying household contribution; (2) a Plan International community-led total sanitation programme, by which over 1000 villages had been declared open-defecation free; and (3) the International Development Enterprises' sanitation marketing programme, with cheap latrines designed and marketed by trained suppliers. The leverage ratio of the programmes (US\$ household investment per US\$ programme expenditure) ranged from 0.2 to 1.0. In order to stimulate long-term demand, the Grow Up with a Toilet Plan, targeted at poor mothers on the birth of their first child, used a voucher and reward system to encourage improved sanitation over a five-year period.

While challenges remained, particularly with regard to financing, effective targeting and long-term sustainability, a number of significant lessons had been learnt, including the value of consultation and clear articulation of roles; the need for cooperation among programme partners and donors to leverage and share resources to achieve collective outcomes; the critical importance of demand creation; and the need for further evidence to guide effective action.

Following the presentation, in response to a query about working with the private sector, Mr Samnang said that typically community-led total sanitation triggered demand at the local level, and the private sector (usually existing entrepreneurs) filled the gap to supply that demand by providing low-cost options that were affordable by the community. Thus a hybrid of community- and market-based options was made available. Responding to a question about the operation of subsidies and credits, he said that the aim of the scheme was to reward desirable behaviour. Once a child was born, the mother received a conditional cash transfer to assist latrine construction, and further credit points became available if the mother attended a hygiene course or undertook other positive activities. Problems remained, however, in assessing eligibility and in monitoring.

2.5.2.2 Microfinance innovation in housing and sanitation for the poor in the Philippines

Mr Ruben C. de Lara, Tulay sa Pag-unlad Inc., Philippines, gave a presentation on microfinance innovation in the area of housing and sanitation for the poor. Tulay sa Pag-unlad, which means “bridge to progress”, had been established in 1981 as a non-profit, non-stock foundation and now provided microfinance to almost 260 000 clients, mostly through its 125 branches in Luzon. Its mission has been to “lead the poor towards fullness of life through transformational microenterprise development”, applying the core strategies of values formation, enterprise development, nurturing leadership skills and community development. Lending facilities existed for both economic empowerment and social empowerment. In the latter category, loans had been provided to meet the basic needs of poor households at an interest rate that is 40%–50% lower than the loans extended for livelihood. The loans were non-revenue generating but contributed to productivity and addressed the vulnerability of poor households.

The Housing and Sanitation Loan Programme provided microfinance services for toilet construction and renovation, and local human resources were mobilized for construction. Tulay sa Pag-unlad Inc., was open to partnership with technical experts, material suppliers and manufacturers, and further programme partners were being sought, including to address the challenges of promoting education on the value of investing in health and sanitation, and advocacy of environmentally friendly technology.

Following the presentation, Mr de Lara responded to a question on the nature of Tulay sa Pag-unlad Inc. by stressing that it was a non-profit organization whose motive was to alleviate poverty. The government of the Philippines is very supportive of nongovernmental organizations and encourage them to be active partners in development. Tulay sa Pag-unlad Inc. had been initiated with a grant from the United States Agency for International Development (USAID) in 1981, and still receives grants from donors. He added that microfinance should adopt a holistic approach, with loans not only confined to revenue-generating activities but also applied to the finance of housing and sanitation facilities with the aim of improving productivity and dignity. Also, it was necessary for the process to be overseen by a regulatory institution. With regard to partnership, Mr de Lara said that it would like to work more with local government units, but few had come forward. Finally, he confirmed that Tulay sa Pag-unlad Inc. teams provided sanitation and hygiene education to community members, who met regularly in groups of 20 to 30 people.

2.5.2.3 Direction of water services industry in Malaysia

Mr Haji Japar bin Abu, Senior Undersecretary, Water Services Division, Ministry of Energy, Green Technology and Water, Malaysia, gave a presentation on the direction of the water services industry in Malaysia. The previous highly fragmented arrangements had been replaced by a new policy and legal framework, with the aim of putting in place a sustainable long-term business model, supported by two new laws enacted in 2006: the Water Services Industry Act, which governed the water services industry from treatment of raw water to discharge of wastewater; and the National Water Services Industry Act, which established the National Water Services Commission (*Suruhanjaya Perkhidmatan Air Negara*, or SPAN).

Under the model, the Water Asset Management Company (*Pengurusan Aset Air Berhad*, or PAAB), wholly owned by the federal government, owned the water assets, which were leased to commercial water operators, with regulation and monitoring carried out by SPAN. Water services operators were grouped into four categories according to their financial viability, which was assessed by the level of subsidy or payments they made to PAAB. Regulation by SPAN was based on the following principles: openness and transparency; and emphasis on output-based regulation through a well-defined accounting framework. Full cost recovery was also adopted as a principle to sustain the operations of the water operators. The reforms were still ongoing, and the target was for all water operators to be corporatized by the end of 2010.

During the ensuing discussion, Mr Japar responded to a number of queries. On the issue of setting tariffs to enable full cost recovery, he said that tariffs were among the lowest in Asia. The federal government intended to impose an across-the-board tariff increase for the whole country, and would eventually adopt cost-based tariffs. With regard to enabling water operators to graduate from category 1 (the least viable) to category 4 (financially independent concessions), he said that financial and advisory support was given to those utilities in lower categories, provided they had a business plan that included means to improve their performance. However, none of the utilities had the financial capacity for large investments such as dams, and subsidies were provided for such ventures.

2.5.3 Knowledge products and technologies (Facilitator: Mr Dan Lapid)

2.5.3.1 Role of advocacy

Ms Vandana Mehra, Regional Communications Specialist, WSP-South Asia, and Mr Yosa Yuliarsa, Regional Communications Specialist, WSP-East Asia and the Pacific, gave a presentation on the role of advocacy in putting sanitation and hygiene on top of the development agenda. Sanitation and hygiene were still largely viewed as a private matter and remained an “untold story”, characterized by lack of political will, low levels of funding, limited evidence to support advocacy and failure to stimulate demand. In recent years the profile of sanitation and hygiene had been raised by various regional conferences (including EASAN) and the development of a number of related tools and campaigns, including designation of 2008 as the International Year of Sanitation and the establishment of Global Handwashing Day.

Advocacy was a “set of targeted actions directed at decision-makers and opinion-makers in support of a specific policy issue”. It was directed at influencing decisions made at the uppermost levels of the public or private sector or the community on policy, laws, regulations, programmes or funding. The process was dynamic and involved identifying issues for action, developing solutions, building political support, instigating policy action, and evaluating that action in order to see what further action needed to be taken. Indicators of successful advocacy included coalition building, with networks and allies visible; high level of participation, by stakeholders and by the media; contribution of resources to support the process; and outcomes in the form of policy formulation, programme implementation, legislation or other concrete results.

In the ensuing discussion, there was emphasis on the presence and importance of advocacy champions as agents of change, including at the community level. In Cambodia, for example, district government officials had become agents of advocacy; and in Indonesia and the Lao People’s Democratic Republic, a strong and established local media network was in place. Also, technical specialists in the field had a role to play in advocacy and communication through ensuring that technology or strategy interventions could be better understood and therefore accepted.

2.5.3.2 Designing sanitation in Cambodia

Mr Cordell Jacks, Water and Sanitation Manager, International Development Enterprises, Cambodia, gave a presentation on designing sanitation. He highlighted the various obstacles hindering provision, with 83% of rural Cambodians lacking access to safe sanitation. A sanitation marketing pilot had been undertaken in two provinces, with a wide range of national and international partners. Through a demand-driven, self-financed approach, 14 000 latrines had been constructed by local providers, with the wet-flush option proving more marketable than dry toilets. “Human-centred design” was at the core of the programme, responding to the challenge of providing latrines that were low cost, upgradable, desirable, saleable and sustainable.

The design process involved four key stages: inspiration, strategy, design and implementation. Flexible, divergent thinking was important at the first stage, talking to all stakeholders and evolving prototypes. The design eventually chosen was a single, universal wet latrine core (the “easy latrine”), with sale of complete kits enabling one-stop purchase. The installation process was easy and could be carried out by the villager. The latrine was marketed through stressing the benefits, including convenience, improved health and status. The design had been well accepted and the level of interest showed significant promise for scaling up.

During the ensuing discussion, Mr Jacks responded to some issues raised. He said that in Cambodia the dry latrine was inappropriate due to the risk of flooding. The latrines were not to be constructed within 15 metres of a water source. A follow-up to the project, again using the human-centred design approach, would involve training in residual waste composting. Community-led total sanitation could assist in minimizing the potential risks of groundwater contamination. On the subject of willingness to pay, studies had indicated that 40%–80% of people were willing to pay US\$ 30 for a latrine. While the latrine ring was thinner than by usual standards, the providers had guaranteed that it would not break during transportation and construction.

2.5.3.3 Water reuse in Singapore

Mr Wah Yuen Long, Director, Water Reclamation (Plants) Department, Public Utilities Board, Singapore, gave a presentation on water reuse as a component of sustainable water resource management in Singapore. The Public Utilities Board, under the Ministry of the Environment and Water Resources, is Singapore’s national water agency, and has the mandate to “ensure an efficient, adequate and sustainable supply of water” through managing the four national “taps”: local catchment water, imported water (from Johore), desalinated water and “NEWater” (treated wastewater).

The NEWater approach, initiated in 1998, was based on Singapore’s 100% sanitation coverage, and recycled wastewater through a series of modern technological processes including microfiltration, reverse osmosis and ultraviolet irradiation. A multiple safety approach had been adopted and strict monitoring, including a sampling and monitoring programme and a health effect testing programme, ensured the quality of the end-product water, which had been confirmed by an international expert panel. Stakeholder engagement, including media, opinion leaders, business and the general public, had been crucial in conveying the key message that NEWater was a safe and sustainable source of water supply that met WHO drinking-water guidelines. The NEWater visitor centre, opened in 2003, was a pillar of the public education campaign. An independent survey had indicated a 98% public acceptance rate for NEWater.

There were separate networks for potable reuse and non-potable reuse. Finally, Mr Wah Yuen Long drew attention to Singapore International Water Week, scheduled to start on 28 June 2010.

In response to a question from a participant about the capacity of the system to maintain supply in the event of some disruption of operations, Mr Wah Yuen Long said that there was sufficient buffer supply to continue distribution for a period. Another participant said Singapore was a good example of a country able to adapt to climate change.

2.5.4 Emergency sanitation (Facilitator: Mr Edkarl Galing)

Introducing the session, Mr Galing emphasized the importance of emergency sanitation in view of the vulnerability of the countries of the region to disasters and catastrophes, of which there were several recent examples.

2.5.4.1 Sanitation in emergencies

Ms Therese Dooley, Senior Adviser, UNICEF, gave a presentation on sanitation in emergencies. Safe excreta disposal is a major priority in disaster situations, and should be addressed with as much speed and effort as the provision of safe water supply, for the sake of people's dignity, safety, health and well-being. Sanitation in emergencies requires understanding the likely impacts of sanitation, and providing timely solutions. According to Sphere Project standards, people should have "adequate numbers of toilets sufficiently close to their dwellings, to allow them rapid, safe and acceptable access at all times of the day and night". More specific standards included maximum of 20 people per toilet; toilets arranged by household or segregated by sex; shared or public toilets cleaned and maintained, and at least 50 metres from dwellings; and children's faeces properly disposed of. In actual disaster situations, sanitation provision is as much a matter of commonsense as of standards, but planning and preparation for emergency response must be in place.

2.5.4.2 Responding to a cholera outbreak in the Lao People's Democratic Republic

Mr Soutsakhone Chanthaphone, Director, National Centre for Environmental Health and Water Supply, Ministry of Health, Lao People's Democratic Republic, gave a presentation on the handling of a severe cholera and diarrhoea outbreak in the southern part of the country in late 2007 and early 2008. Tests found *Vibrio cholerae* in a number of faecal and water samples. Three deaths occurred among the 330 reported cases. The disease had been spread by the faecal-oral route, compounded by poor hygiene behaviour, inadequate water and sanitation facilities, and lack of proper preparation or cooking of food. The Ministry of Health's emergency response was supported by international agencies, including WHO, UNICEF, Red Cross and WSP. Action undertaken included direct medical treatment, surveillance and monitoring until full recovery, rapid improvement to water and sanitation facilities, rehabilitation and installation of boreholes, provision of a gravity-tank water supply system and education in hygienic behaviours. The longer-term strategy aimed to strengthen interagency coordination and information sharing, enhance preparedness, improve and extend hygiene promotion, and continue to improve access to safe water and sanitation, including through upgrading the National Rural Water Supply and Sanitation Strategy.

Following the presentation, there was some discussion on the origin of the outbreak. Ms Dooley said that studies had found an association between *Vibrio cholerae* and certain algae, so dormant cholera can reappear and flourish when conditions encourage the growth of those algae, for example when weather conditions were favourable, or in the presence of organic pollutants such as faecal waste.

2.5.4.3 Emergency management of post-disaster situations in Indonesia

Mr Susmono, Director, Ministry of Public Works, Indonesia, gave a presentation on Indonesian emergency management of post-disaster situations, including following earthquakes, tsunamis and flooding, all of which had affected Indonesia in recent years. The three main stages of emergency management are pre-disaster planning; the actual response to an emergency; and post-disaster recovery. Pre-disaster elements include prevention and mitigation measures, and preparation of a response strategy (with a quick reaction team ready to act). Appropriate supplies need to be accessible, including emergency shelter, water tanks and latrines. Emergency response activity includes a number of diverse components, including management and coordination; data collection; provision of food, clean water and temporary shelter; logistics and transportation; and hygiene and health considerations. The response mechanism includes consideration of the "three C's" – command, control and coordination. The recovery stage includes damage assessment, infrastructure rehabilitation, and non-physical rehabilitation (for example mental health and socioeconomic measures).

In response to a question about policy improvements to facilitate a better response, Mr Susmono acknowledged that in the case of the tsunami in Aceh, coordination had not been good. However, a central facility had been put in place to coordinate work between government agencies, nongovernmental organizations and international organizations. Holding regular meetings to discuss what facilities were required in the field was essential, and all organizations had prepared facilities that were easy to operate in the field. Another participant, noting that preparation of toilets during emergencies required a huge amount of resources, asked what technical and performance standards should be applied in such circumstances. Mr Susmono said that portable, knockdown toilets were prepared in readiness before disasters, with standards applicable to such temporary measures.

2.5.4.4 Impacts of typhoon Ondoy in the Philippines

Mr Ronald Abrigo, Department Manager, Corporate Planning, Metropolitan Waterworks and Sewerage System (MWSS), Philippines, and Mr Nick Hilton, Chair, WASH Cluster, gave a presentation on the impacts of typhoon Ondoy in September 2009, and the response to the disaster. Flood damage to facilities and infrastructure, including sewage treatment plants, was extensive, and personnel were also severely affected. Pumps and generators were submerged, and riverside structures and constructions sites suffered major damage.

Responses in the aftermath of the typhoon included deployment of mobile vacuum tankers for dewatering and dislodging major roads, setting up mobile treatment plants and delivery of potable water. The disaster had prompted a rethink of flood level assumptions, with responses including elevation of electromechanical equipment and use of submersible equipment in flood-critical areas; extended provision of lifesavers, rubber boats and emergency kits; upgrading of communication, information and response systems; and redesigning facilities to take into account climate change, with facility elevation, treatment capacity, and pipe sizing among the variables being considered. In addition, an action centre with a hotline was established at MWSS.

Following the presentation, one participant noted that during the disaster an outbreak of leptospirosis had resulted from a proliferation of rats, and asked what was done with regard to garbage disposal. The representative of the Manila Water Company said that by law the disposal of garbage was the responsibility of local government units, but in an emergency situation official capacity can be overwhelmed and people must to some extent rely on their own resources and effort. There had been a very high demand for water during the disaster, mainly for washing and cleaning up rather than for drinking. In response to the sanitation problem in flooded areas, the Manila Water Company had dislodged the septic tanks in the evacuation centres on a daily basis. Also, the Department of Health had commissioned all commercial or private portable toilets into the affected areas. Portable toilet operators were allowed to bring fresh sludge to the concessionaires' wastewater treatment facilities, which helped lessen the impact of waterborne diseases.

2.6 Messages from development partners

2.6.1 Sanitation and Water for All: A Global Framework for Action

In her message, on the evening of 27 January, Ms Clarissa Brocklehurst said that she attended the first EASAN conference, and was pleased to note the momentum that had been built. She drew attention to an important initiative – Sanitation and Water for All: a Global Framework for Action – a worldwide partnership of governments, donors, civil society and other partners that intends to push sanitation up the global agenda, for example by sharing evidence-based results for sanitation in order to promote increased investment in the sector. It aims to encourage partners to make commitments that can be monitored, and to ensure adequate funding for sanitation programmes. The first annual high-level meeting on Sanitation and Water for All, attended by ministers, would take place in April 2010. In East Asia, Cambodia, Mongolia and

Timor-Leste would participate in the preparation of the high-level meeting, and in South Asia, Bangladesh and Nepal had also signified their intent to be involved. She urged those present to lend their support to the initiative.

2.6.2 Global Annual Assessment on Sanitation and Drinking-Water

In his message, on the evening of 27 January, Mr Peregrine Swann gave some information on the Global Annual Assessment on Sanitation and Drinking-Water (GLAAS), which, he said, was intended to present a holistic picture of what donors, governments and other partners had achieved in the sanitation and water supply sector. GLAAS would utilize and complement existing data, for example from the WHO/UNICEF Joint Monitoring Report.

The first GLAAS report would be published in time for the high-level ministerial meeting on Sanitation and Water for All in April 2010, and would be updated annually. It was expected that GLAAS would prove essential in identifying knowledge gaps, indicating developments and trends in the sector (including how resources were targeted), and providing evidence on further action that partners should undertake. Through GLAAS, it was envisioned that the needed investments and contributions to sanitation and water supply would be prioritized, given that a 2008 report by the Organisation for Economic Co-operation and Development revealed that 30% of donor and other sources of financing went to support the basic services, but out of that 30%, only 13% went to sanitation and water supply. GLAAS would attempt to answer the questions of whether the resources really went to the unserved; whether available resources were enough to meet the MDG targets; and whether countries were able and equipped to allocate resources for sanitation and water supply.

2.6.3 Message from the United Nations Secretary-General's Advisory Board on Water and Sanitation

Ms Olivia la O' Castillo, Member, United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB), speaking on the morning of 28 January 2010, on behalf of the Board and its Chair, Prince Willem-Alexander, said that while sanitation was the foundation of human health, dignity and development, it had too often been overlooked by the international community. To draw renewed attention to that hidden crisis, UNSGAB had persuaded the United Nations to declare 2008 the International Year of Sanitation. The initiative had focused unprecedented global attention on the acute need for expanded sanitation services, and the challenge now was to build on the momentum created and the commitments made in 2008. She praised the countries of East Asia for delivering on their pledges, made at EASAN-1, to play active roles in the International Year of Sanitation, and demonstrating political leadership by increasing investment in sanitation and linking budgets to clear lines of governmental responsibility.

But more needs to be done, in East Asia and elsewhere, to have any hope of attaining the MDG target for sanitation and improving the health, dignity and development of millions of individuals. UNSGAB had just completed its new mandate for work in the coming three years, entitled the Hashimoto Action Plan II, which reflected the Board's continued resolve to work with partners to ensure that the commitments made during the International Year of Sanitation were met. EASAN-2 was very important in that regard, as one of the main outcomes of the meeting would be a declaration renewing the region's commitments to sanitation goals. UNSGAB urged the countries of East Asia to develop clear, measurable, easily monitored and, above all, achievable commitments on sanitation in the coming years. UNSGAB, for its part, through the Hashimoto Action Plan II, would work with its partners, including national governments, to generate political will for sustained action on sanitation.

The Board would also generate support for increased sanitation coverage in schools, recognizing that expanding sanitation was as much a cultural challenge as it was a technological one, and would galvanize action for improved wastewater collection, treatment and reuse. In conclusion, she said that UNSGAB looked forward to working with its East Asian partners on those issues and conveyed its best wishes for a successful EASAN-2 conference.

2.6.4 Follow-up Conference of the International Year of Sanitation

Ms Amy Leung, Asian Development Bank, gave a report on the recent Follow-up Conference of the International Year of Sanitation, 26–27 January 2010, Tokyo, Japan. Setting the background for the conference, she said that basic sanitation could be provided to the global population for around US\$ 20 billion per year – about a third of the global spending on bottled water. However, achieving that goal was only possible through commitment to appropriate investment choices. On the positive side, sanitation was no longer receiving scant attention, and opportunities were opening up, at national and international levels, for policy and budgetary interventions. Sustained coordination among international organizations was necessary to carry the process forward.

In that context, the Follow-up Conference of the International Year of Sanitation had agreed on three key areas to push sanitation commitments: embedding sustainable sanitation in society through advocacy; promoting locally tailored technology; and securing finance. In addition, an International Half Decade for Sustainable Sanitation had been proposed as a vehicle for maintaining momentum and acting as a catalyst for change. Eight objectives or areas for action were proposed for the Half Decade, as follows:

- (1) improving monitoring, reporting and management of data on sanitation;
- (2) scaling up sanitation actions, focusing on best practices;
- (3) strengthening leadership for sanitation advocacy and promotion at all levels;
- (4) clarifying roles and responsibilities within government, and ensuring accountability;
- (5) in government policy, placing additional focus on productive sanitation systems;
- (6) disseminating information to policy-makers on the quantitative benefits of action on sanitation;
- (7) developing a technology matrix and clearing house to facilitate selection of locally optimal and tailored technology for sanitation; and
- (8) engaging in a stock-taking forum in 2014.

Finally, she called on those attending EASAN-2 to endorse the proposal to hold an International Half Decade for Sustainable Sanitation, and to lend their support to the proposed areas for action in order to maintain momentum in achieving country commitments to sustainable sanitation.

Mr Zhao Hui, Deputy Director-General, Department of Rural Development, Ministry of Housing and Urban-Rural Development, China, gave a presentation illustrating how the principles outlined in the previous presentation might be coordinated at the national level. A summary of the presentation can be found in section 2.7.1.5.

2.7 Country sharing II: simultaneous workshops

During this session, on the morning of 28 January 2010, simultaneous workshops took place on three themes:

- (1) institutional arrangements and policy
- (2) septage management
- (3) total sanitation.

Presentations on relevant issues were made during each workshop, followed by group discussions or activities. A facilitator guided the proceedings.

2.7.1 Institutional arrangements and policy (Facilitator: Ms Olivia la O'Casitillo)

2.7.1.1 National Five-Year Strategic Plan for Water, Sanitation and Hygiene in Myanmar

Mr Paing Soe, Deputy Minister, Ministry of Health, Myanmar, gave a presentation on the National Five-Year Strategic Plan for Water, Sanitation and Hygiene (2007–2011), which was being implemented within the wider context of the National Health Plan (2006–2010) and the long-term national development plan, entitled Myanmar Vision 2030. Since 1998, the nationwide sanitation programme had been implemented through a demand-driven approach based on self-reliance and social mobilization, with the National Sanitation Week central to the process. The strategy had succeeded in increasing national sanitation coverage from 45% in 1997 to 82% in 2008. The objectives of National Sanitation Week included reaffirmation of high-level political commitment; raising community awareness on hygiene and sanitation issues; and involving a range of partners, including nongovernmental organizations, in enhancing implementation and supporting monitoring and management at subnational level.

He said that significant progress had been made in reducing open defecation and increasing supply of safe drinking-water, and 99% of students in the country had access to school latrines with separate toilets for boys and girls. Hygiene and sanitation figured prominently in the school curriculum, and community-based health education was supported by a range of “communication for behavioural impact” strategies; for example a handwashing campaign, augmented by circulation of graphic posters, had been instrumental in the containment of H1N1 influenza virus and other infectious diseases. He also gave an example of the practical application of institutional arrangements by detailing the response to cyclone Nargis in May 2008, which involved rehabilitation of contaminated water supply in thousands of ponds and wells, installation of over 200 water treatment units, provision of water tanks to health centres and schools, and free supply of sanitary latrines for all households.

In conclusion, he said that the success of the sanitation initiative was attributable to a number of factors, including establishment of firm policy guidelines; political commitment from ministerial to grassroots level; reiteration of key messages through regular campaigns, particularly National Sanitation Week; and active community and school participation within a community-led total sanitation approach, based on simple solutions and appropriate technology.

Following the presentation, one participant referred to the 1982–1995 programme whereby UNICEF supplied plastic pans and accessories for construction of sanitary latrines, and asked if any change in behaviour had been noted. Mr Paing Soe said that before the intervention open defecation was universal, but the intervention helped in sensitizing people and making them more aware of sanitation issues.

2.7.1.2 Water governance in Mongolia

Mr Davaa Basandorj, Professor, Mongolian University of Science and Technology, gave a presentation on water governance in Mongolia. He said that 28.2% of the population had access to improved sanitation, with the main concentration in the area around the capital, Ulaanbaatar. He outlined the political structure in Mongolia in relation to water governance, and gave details of a suggested new structure for integrated water resource management based on function. A central water agency would act as an information and decision support system, interacting with other agencies and ministries on water- and sanitation-related matters. In conclusion, he said there was a need to do the following: improve institutions in the water sector; establish responsibilities for rural water supply and sanitation; develop public-private partnerships in the water and sanitation sector; increase the involvement of the private sector and nongovernmental organizations; and instil strong political commitment and leadership for improved sanitation and hygiene.

2.7.1.3 Philippines Sustainable Sanitation Sector Roadmap

Ms Rosario Aurora "Rory" Villaluna, Executive Secretary, Streams of Knowledge, gave a presentation on the Philippines Sustainable Sanitation Sector Roadmap, which had recently been formulated to provide the overarching framework for policy, programme and strategy development in the sector. The road map presented strategies for achieving national and MDG targets, and would help establish adequate institutional arrangements, trigger demand, facilitate financing and stimulate progress towards sustainability of sanitation systems. It envisaged the involvement of a wide range of partners, including the Department of Health, water agencies, housing agencies and local government units.

The MDG target for sanitation coverage for the Philippines is 84%; the Department of Health 2010 target is 91%. Because progress had been variable during the previous decade, and had been hampered by recent disasters, a major intervention was required to attain targets. Fragmentation of the institutional and policy framework, lack of stakeholder involvement, low investment and inadequate capacity all slowed development in the sanitation sector, with significant cost impacts on health, aquatic ecosystems, tourism and livelihoods.

Prior to its implementation, the road map needed to be approved by the Subcommittee on Water Supply and Sanitation, established in 2008 under the aegis of the National Economic and Development Authority, which was mandated to provide oversight functions related to sector plans and programmes. It had been decided that the purview of the road map would be limited to management of human excreta, regardless of where it was generated. "Vision 2025", which was proposed by the road map, foresaw "a clean and healthy Philippines through safe and adequate sustainable sanitation for all". The guiding principles of the road map viewed sanitation as a social and economic good in addition to a basic human right. The road map identified a number of targeted outputs, with associated activities and inputs, in five key areas: governance and regulatory strengthening; service delivery, communication and capacity development; building strategic alliances; financing, investment and infrastructure; and sanitation in emergency situations. Local government units would have a key role to play in planning and implementation.

Responding to a question about sanitation where water supply was not available, Ms Villaluna said that there were solutions that could be applied in such circumstances, such as EcoSan options. In response to a query about the capacities needed to bring groundwater, surface water and ecosystems into the equation to ensure long-term sustainability, she said that that was the function of integrated water resource management, of which sanitation was a component. At the minimum, a local water resource management plan should be in place. Another participant asked about the roles of nongovernmental organizations, civil society and local government units in sanitation delivery. Ms Villaluna said there was a mechanism for such

involvement; her nongovernmental organization, Streams of Knowledge, had been tasked to take the lead in preparing the road map under the aegis of the National Economic and Development Authority. There was still, however, a need to convince local government units through pilot projects, incentive schemes, visits and innovative financing. The wastewater initiative in Muntinlupa City was a case in point.

2.7.1.4 Development of national sanitation policy in Timor-Leste

Ms Madalena F. Melo Hanjam Costa Soares, Vice-Minister of Health, Timor-Leste, gave a presentation on the development of national sanitation policy in Timor-Leste. The rate of increase in rural sanitation access, she said, was below that required for attainment of the MDG target, and respiratory and diarrhoeal diseases remained the top two causes of infant and child mortality. The government had committed to sanitation coverage of 55% in rural areas and 80% in urban areas by 2015, and had adopted an approach based on behaviour change and building capacity for improved service delivery. Total funding for sanitation in 2010, from government, donor and other sources, was nearly US\$ 3 million. Actions to increase sanitation coverage included infrastructure development; expansion of a primary health care programme, including through health volunteers trained in environmental health promotion; a school health promotion programme; launching a “weekly cleaning day”; initiation of pilot projects using a non-subsidy, incentive-based approach (though subsidies were available for vulnerable households); and establishment of a Sanitation Working Group to improve coordination and shared learning.

She then outlined the main elements of the National Sanitation Policy and the stages of the process by which it had been developed, with consultation and advocacy figuring prominently. She identified sector strengths as follows: government commitment to decentralization (given that 75% of the population was rural); utilization of global best practices; international support from a wide range of donors and agencies; and an effective coordination mechanism at national level. The challenges were mainly related to the recent establishment of the country as a sovereign State, and institutional development, capacity-building, data collection, and legislative and policy development were still very much works in progress.

2.7.1.5 Improving rural environmental sanitation in China

Mr Zhao Hui, Deputy Director-General, Department of Rural Development, Ministry of Housing and Urban-Rural Development, China, gave a presentation on the coordination of four key factors in improving rural environmental sanitation in China – economic capacity, consciousness, institutional aspects and technology. With regard to economic capacity, he said there was a reciprocal relationship between economic development and improved environmental sanitation, with each element enabling the other; improving sanitation would in itself promote economic development. Turning next to consciousness, he said it could be raised in a number of ways, including through health education, especially for children, and developing demonstration projects. As regards to institutional aspects, it was vital that institutions were strong enough to provide strong regulation and leadership, and that they were aligned with economic and technological capacity. He gave examples of institution-building measures in China, including preparation of a national plan for solid waste and wastewater treatment in towns and villages. Considering, finally, the technological aspects, he said that a research centre for rural wastewater treatment technology had been established by the Ministry of Housing and Urban-Rural Development in 2008, and demonstration projects of solid waste and wastewater treatment had been put in place in several locations, supported by publication of relevant tools and guidance documents. He concluded with a few case studies of small-scale technological solutions, for example construction of wetlands using domestic wastewater and an anaerobic tank plus ladder ecofilter system.

Following the presentation, one participant asked if there were regulations regarding the use of faeces as fertilizer. Mr Zhao Hui said that technical guidelines were in place. In response to another question he confirmed that there was an educational programme for schools on water, sanitation and the environment.

2.7.2 Septage management (Facilitator: Mr Jose Serafin "Jay" Tecson)

2.7.2.1 Rapid assessment of septage management in Asia

Mr Niels van Dijk, Water and Sanitation Team Leader, Environmental Cooperation-Asia (ECO-Asia), and Ms Linda Shi, Water and Sanitation Coordinator, ECO-Asia, gave a presentation on the findings of a rapid assessment of septage management in Asia. In addition, there were two panellists: Mr Abdul Kadir bin Mohd Din, Chief Executive Officer, Indah Water Konsortium, Malaysia; and Mr Mark Tom Mulingbayan, Environmental Planning and Sustainability Manager, Manila Water Company, Philippines.

The rapid assessment of septage management had been undertaken in seven countries of South and South-East Asia, namely: India, Indonesia, Malaysia, the Philippines, Sri Lanka, Thailand and Viet Nam. The assessment involved a baseline study of the status of septage management in the countries; desk studies of policies, laws and sector assessments; field visits to selected cities and facilities; and interviews and peer reviews. The findings had been validated among regional stakeholders at a workshop in Kuala Lumpur, Malaysia in May 2009, where agreement had been reached on the need for government awareness and leadership, funding and public-private partnership to manage septage.

The assessment found that urban access to improved sanitation had increased over the previous decade due in large part to investments in on-site sanitation systems, including septic tanks and pour-flush latrines. However, most sanitation programmes had focused on toilet installation and sewerage development, and management of on-site sanitation had been neglected as a component of urban sanitation and wastewater management. Thus, on-site sanitation systems in urban areas had become major sources of groundwater and surface water pollution, with significant adverse environmental, public health and economic impacts.

The countries studied had varying institutional and infrastructure capacities to manage septage, and while there was widespread use of septic tanks and latrines in cities, septage treatment remained very limited. That situation was compounded by the limited awareness among policy-makers of the problem and the corresponding need for policy setting, funding allocation and enforcement of regulations. At the implementation level, the lack of awareness translated into a range of common challenges, including:

- (1) weak enforcement of septic tank construction codes;
- (2) lack of data on the location and condition of septic tanks;
- (3) infrastructure development without corresponding adoption of local policies and regulations, capacity-building programmes or public promotion initiatives;
- (4) limited local capacity to design, construct and operate collection and treatment infrastructure; and
- (5) tariff structures that did not promote cost recovery, compliance with regulations or entrepreneurship.

In addition, while private operators provided septage collection and disposal services in most countries of the region, few local governments or utilities regulated those services or leveraged the capabilities of service providers to expand dislodging services.

While several countries, particularly Malaysia, had developed good practices, there was a clear need for three key measures to improve septage management in the region:

- (1) establishment of a strong policy framework, including clear guidelines for septage management and enforcement of design codes;
- (2) strengthening institutional and implementation capacity, for example through awareness-raising campaigns and developing mechanisms for interagency cooperation; and
- (3) diversifying funding for septage management, including through creative financing, redesign of tariff structures and creating opportunities and incentives for commercial activities.

Opportunities for regional cooperation existed in several areas: water operator partnerships, by which model utilities could be paired with struggling peers to develop national models; nationwide replication initiatives to disseminate best practices; research collaborations, for example in septage treatment technology; and regional events for policy-makers and utilities to share experiences and knowledge. WaterLinks, initiated as a result of the Hashimoto Action Plan, had been founded in August 2008 as a regional platform for water operator partnerships, and assisted in facilitating partnership, strengthening capacity and disseminating best practices, including through publication of a 10-Step Promotion Program Toolkit (<http://www.waterlinks.org/promotion>).

2.7.2.2 Discussion

Following the presentation, there was a discussion of the wide-ranging issues raised. With regard to septic tanks versus sewerage systems, Mr Mulingbayan said that it was a question of evolution; if septic tanks were the best current solution, and were doable and affordable, then they should be encouraged. The Manila Water Company intended to build dedicated sewers throughout the city, but that was very expensive. There was a need to evolve from septic tanks, to a combined system, to full sewerage. Mr Kadir said that the target in Malaysia was to reduce septic tanks in cities by 2020 and connect to a sewerage system. He concurred that the way forward was to use septic tanks and move towards septage management.

In response to a question on the cost and financing of sewerage systems and septic management, Ms Shi said that the rapid assessment had not covered private operators. Generally, households were willing to pay for collection, but that did not cover the cost treatment, which was usually done by the private sector. The facilities would need to demonstrate cost recovery to entice operators to provide those services. Mr Mulingbayan said that cost was a significant factor in construction of septage facilities; large systems involved higher operating costs, wider collection areas and higher transport costs, but operations were more robust. Mr Kadir added that another factor was securing land in order to build septage or sewerage facilities and systems. Ms Shi said ECO-Asia had a toolkit for septage management planning that calculated payback ratios based on selected variables. Responding to a question about subsidization of septage management programmes, Mr Kadir said that funding was crucial to the success of such programmes. In Malaysia, the capital expenditure of projects had been subsidized, including through a loan from the Japan Bank for International Cooperation. The level of subsidy depended on the business plans of the operators.

Dr Gozun commented that the choice of system was not just about financing or economics; social acceptability and political considerations also needed to be taken into account, as did health and the environmental implications of pollution from septic tanks. Alternative solutions should be considered according to specific circumstances; for example the Gawad Kalinga programme in the Philippines had shown that an anaerobic baffled reactor, which cost the same as building septic tanks but which gave a potential 60%–75% removal efficiency compared to only 25% for septic tanks, could be installed underground even in densely populated areas.

On emerging designs, Ms Shi said that the survey had not included comparative models, but throughout the region it was apparent that many designs were not built to code and there was poor compliance of septic tank construction with standards. Mr Kadir said that in Malaysia, 20 different types of septic tanks were currently registered with SPAN, which regulated the process and monitored dislodging programmes. In the case of a design defect, the supplier was removed from the list.

One participant observed that currently cities were mandated by law to undertake septage management, and asked if there were any country experiences on other policy mechanisms to generate demand for septage management. Ms Shi said that while it was easier to motivate just one government institution, top-down implementation by itself was not sustainable, and needed to be augmented by incentive programmes such as branding and bottom-driven schemes, as had been demonstrated in Marikina City in the Philippines.

Responding to a question about waste management, Mr Mulingbayan said that what went into the septic tank was what was flushed from the toilet, and pollution from grey water – from bathrooms, laundry and car washing – also needed to be accounted for. Laying dedicated sewers could address the problem, but that would escalate costs. The Manila Water Company's master plan was to retrofit the network into dedicated systems by 2018. With regard to rainwater capture, interceptor boxes were effective in the absence of a dedicated sewerage system.

With regard to processing of biosolids, Mr Kadir said that in Malaysia water sludge was reused as soil conditioner for forestry and non-edible crops, and sludge was also converted into solid form for use in cement factories and power plants. Mr Mulingbayan said that the Manila Water Company was undertaking research and development to identify and test technologies such as anaerobic digestion for converting sludge into usable products, for example briquettes.

Another participant asked about the logistics of twinning programmes. Mr van Dijk said that the partners were usually companies and local governments. Interested parties could contact WaterLinks, the Asian Development Bank or USAID, for example through country or regional offices. Promotion of water partnerships was also done through water associations. Exchange programmes designed for partners to witness activities in other countries are effective in building capacity.

2.7.3 Total sanitation (Facilitator: Ms Almud Weitz)

The four panellists for the panel discussion on total sanitation were Mr Pom Chreay, Deputy Director, Ministry of Rural Development, Cambodia; Mr Devi Setiawan, WSP, Indonesia; Dr Mohd Nasir Hassan, Environmental Engineer, WHO, Cambodia; and Ms Therese Dooley, Senior Adviser, UNICEF.

2.7.3.1 Introduction and panellist inputs on total sanitation

Ms Weitz introduced the session by discussing the challenges faced by the sanitation sector, including the lack of demand for sanitation compared to water supply, leading to low prioritization for sanitation; the lack of clear definition of responsibility for sanitation at government level; and the limited access to data on success stories, retarding the scaling up of implementation programmes. During the previous decade, certain trends had become apparent in the sector in the East Asia region, including a move away from infrastructure investment support towards behaviour change with the aim of aiding governments and communities to move up the sanitation ladder, while retaining supply-side support for applicable technologies adapted and made affordable for the poor.

Mr Chreay gave a presentation on community-led total sanitation (CLTS) in Cambodia. He said that subsidization of sanitation facilities for the poor had helped increase coverage by 80%. CLTS had initially met with varied success, and private sector participation had not been widespread. However, the country had developed technology options that had later evolved into a universal design. The main success factor had been the achievement of synergy between the community, available technology options and the private sector. The way forward was to roll out more pilot programmes and to encourage greater involvement of the private sector, including through franchising.

A video presentation showed how the process of CLTS in Cambodia had helped a village to act collectively to address open defecation. The tasks carried out included identification of patterns of community behaviour on sanitation and hygiene; sanitation mapping to find out the locations used for open defecation; transect walking to raise awareness; highlighting the impacts of open defecation, including medical costs; and demonstrating the positive impacts for safe food and drinking-water resulting from cessation of open defecation.

Mr Setiawan, in his presentation, said that CLTS had been introduced in Indonesia in 2004. In 2006, the government identified four pillars in the strategy for implementation: handwashing, household desludging, wastewater treatment and solid waste treatment. In 2008, a national strategy for sanitation had been drawn up. After five years of implementation, 2000 communities no longer practised open defecation. The CLTS approach was to a large extent popularized among communities by word of mouth.

Ms Dooley gave a message on the community approach to total sanitation (CATS), which recognized the key role played by the community in leading the change process. The approach supported communities in identifying what worked best for sanitation, and focused strongly on building capacity. Communities rather than households should identify what subsidies should be applied, and the supply side should be strengthened to enable movement up the sanitation ladder. Interventions should be flexible and adaptable.

2.7.3.2 Discussion

The facilitator used “idea cards” to prompt the subsequent discussion. The debate focused on the factors that enabled successful sanitation and hygiene interventions. Among the questions raised were whether low-cost sanitation products could be made attractive and desirable; and whether community empowerment through CLTS was really possible, rather than an artifice by governments to escape the responsibility of providing access to basic services. Several participants acknowledged the complexity of the issue, with CLTS working well in some settings, as in Thailand, while similar approaches in other settings were less successful. Another participant stressed the role of strong government to put in place the necessary building blocks.

Dr Hassan mentioned the difficulty of identifying the turning point for the paradigm shift, that is, when interventions on sanitation and hygiene start to take on a momentum of their own. Generating long-term solutions was vital. Mr Setiawan said that the triggering factor was often collective community realization of the costs of inaction, for example the ill-effects of open defecation. A key element in turning that awareness into action was the willingness of agencies, particularly government, to engage in dialogue with the community in order to identify the best solutions.

One participant said that religion and culture were major factors in prioritizing sanitation, noting that Islamist and Buddhist teachings stressed the importance of good hygiene. Ms Dooley issued a call to action to religious groups; 64% of schools are owned and run by religious groups, and they have an important role to play in sanitation and hygiene education.

Several participants stressed the role of appropriate technology interventions in influencing and changing lifestyles. It is important to support toilet building as an income-generating enterprise. However, reliance on the profit motive for service provision could sideline the poorest in the community. Also, if affordable options are not available, then behaviour change approaches could result in frustration for certain members of the community.

On the matter of community empowerment, one participant said that the role of government was that of facilitator, enabling the process and letting the people consider the issues and decide for themselves. Others drew attention to the dangers of overreliance on community empowerment, as that would only result in “islands of success” and would not help in scaling up, which required government assistance.

2.8 Round-table of heads of delegations

On the afternoon of 28 January 2010, a round table of heads of delegations of the 13 countries participating in EASAN-2 took place. The round table was chaired by Dr Villaverde.

The heads of delegations present were as follows:

- Mr Haji Suhaimi bin Haji Gafar, Acting Director-General, Public Works Department, Brunei Darussalam;
- Mr Sao Chivoan, Secretary of State, Ministry of Rural Development, Cambodia;
- Mr Bai Huqun, Deputy Director-General, Ministry of Health, China;
- Mr Budi Hidayat, Director of Housing and Planning, Bappenas, Indonesia;
- Mr Eksavang Vongvichit, Vice-Minister, Ministry of Health, Lao People’s Democratic Republic;
- Mr Haji Japar bin Abu, Senior Undersecretary, Sewerage Services Department, Ministry of Energy and Green Technology, Malaysia;
- Mr Ganbold Davaadorj, Vice-Mayor, Ulaanbaatar, Mongolia;
- Mr Paing Soe, Deputy Minister, Ministry of Health, Myanmar;
- Dr Mario C. Villaverde, Undersecretary, Department of Health, Philippines;

- Mr Satish Appoo, Director of Environmental Health, Department of Environment and Natural Resources, Singapore;
- Mr Somyos Deerasamee, Director-General, Ministry of Public Health, Thailand;
- Ms Madalena Fernandes Melo Hanjam Costa Soares, Vice-Minister, Ministry of Health, Timor-Leste; and
- Mr Cao Lai Quang, Vice-Minister, Ministry of Health, Viet Nam.

Introducing the round table, Dr Villaverde said that the following issues would be discussed: (1) priorities for regional cooperation and the future of EASAN; (2) Manila Declaration on Sanitation and Hygiene in East Asia; (3) collating a database of regional sanitation champions; and (4) the date and venue of EASAN-3. He also stated that the round table would be followed by a press conference at which the Manila Declaration would be signed by heads of delegations.

2.8.1 Priorities for regional cooperation and the future of the East Asia Ministerial Conference on Sanitation and Hygiene

The first part of the session, on the proposed priorities for regional cooperation, was facilitated by Dr Gozun. She recalled that the regional survey carried out by TWG-WHS, as presented by Mr Samnang (section 2.4.1), had identified the following major constraints to sanitation and hygiene development in East Asia:

- (1) lack of coordination mechanisms to harmonize rural sanitation development;
- (2) poor operation and maintenance;
- (3) lack of community awareness on the importance of hygiene and sanitation;
- (4) insufficient financial resources for construction and operation of sanitation facilities;
- (5) failure to prioritize sanitation in policies and programmes; and
- (6) poor monitoring and evaluation.

Much of the discussion of EASAN-2, she said, had been focused on what could be done to address those challenges. There was no universal answer, due to the great variety of cultural, environmental and political landscapes of the countries of the region, but certain regional initiatives could be undertaken in the search for affordable, relevant solutions. Through the TWG-WHS survey, the countries of the region had made the following recommendations:

- (1) more active role of countries in the collective regional and global efforts;
- (2) more frequent meetings for face-to-face exchanges of information;
- (3) training;
- (4) strengthening mechanisms for exchange of information; and
- (5) joint regional project preparation and implementation.

Identification of those recommendations raised the question of what would be the role of EASAN in assisting regional action in the proposed areas, and topics identified for further discussion had included how EASAN might be streamlined with other platforms for action, particularly TWG-WHS; definition of the scope and objectives of EASAN; and how the process might be financed.

From analysis of the country responses in the regional survey, areas for EASAN activity could be summarized into four main themes:

- (1) regional forums
- (2) exchange of information
- (3) sector monitoring and assessment
- (4) training.

Dr Gozun then summarized the process by which the EASAN meetings had developed from proposals accepted at the Regional Forum on Environment and Health in Bangkok in 2007. It was important to decide how the process would be carried forward, bearing in mind that adequate technical and financial support would be needed for whatever solution was accepted. She reminded those present that the scenarios that had been proposed, and that had been under consideration during the current conference, were as follows:

- (1) The EASAN process is assumed by the TWG-WHS secretariat.
- (2) EASAN establishes its own secretariat arrangements.
- (3) EASAN has a rotating secretariat hosted by one of the Member States to be established at each regional forum.
- (4) Keep the current approach.

After some discussion among the heads of delegations, it was decided that the best approach would, in effect, be a combination of several of those scenarios, retaining the current approach of a meeting every two years (scenario 4), with the secretariat and administrative arrangements for EASAN residing with the host country for the next conference (scenario 3), and TWG-WHS providing technical support as appropriate (scenario 1).

Regarding the funding arrangements, it was noted that EASAN-1 was largely funded by donors, and EASAN-2 was largely funded by the host government. Arrangements for future conferences would need to be flexible and innovative.

2.8.2 Manila Declaration on Sanitation and Hygiene in East Asia

Introducing the Manila Declaration on Sanitation and Hygiene in East Asia, Dr Villaverde said that the present draft took into account the comments provided by countries. Following some brief discussion and suggestions for further textual amendments, the Manila Declaration on Sanitation and Hygiene in East Asia was approved by the delegates present. The Declaration, along with the names of the delegates who endorsed it, is presented in Annex 1.

2.8.3 Database of regional sanitation champions

Dr Villaverde, introducing the item, said that in each country of the region there were politicians, institutions, organizations, researchers and others that were considered champions of sanitation, and whose names and contact information could be included in a central, online register, constituting a database of experts available to countries requiring particular technical advice or knowledge transfer. The Philippines offered to serve as the moderator and host of the database.

The delegates approved the idea of collating a central pool of experts, and agreed that their relevant national bodies would submit the names of individuals or organizations for inclusion in that pool. The Philippines would provide a matrix to help countries in supplying relevant information.

2.8.4 Date and venue of EASAN-3

Introducing the item, Dr Villaverde said that the third East Asian Ministerial Conference on Sanitation and Hygiene (EASAN-3) would take place in 2012, and opened discussion on the venue for that meeting. Mr Hidayat said Indonesia was willing to host EASAN-3, and the proposal was approved by acclamation. Mr Hidayat said that the probable venue would be Denpasar, Bali.

2.8.5 Press conference and signing of the Manila Declaration

Dr Villaverde chaired the press conference and signing of the Manila Declaration that followed the round table of heads of delegations. In his introductory statement he outlined the background to EASAN, and the process of regional cooperation that had been initiated in EASAN-1 and continued in EASAN-2. The current conference had provided a snapshot of the regional status of sanitation, and had allowed productive sharing of best practices. It had also identified major challenges and identified areas for regional cooperation in developing and scaling up responses to those challenges. A major output of EASAN-2 had been the Manila Declaration on Sanitation and Hygiene in East Asia, which called for wider regional cooperation on sanitation, agreed that national progress should be accelerated by placing sanitation higher on the government agenda, and laid the foundation for a regional action plan for sanitation and hygiene.

The Manila Declaration on Sanitation and Hygiene in East Asia was then formally signed by the 13 heads of delegations attending the round table, witnessed by representatives of the three major development partners: UNICEF, WHO and the World Bank.

During the ensuing press conference attended by members of the media, the heads of delegations made brief statements regarding the actions being taken in their own countries to attain the sanitation-related Millennium Development Goals. Several delegates noted the increasing prominence of sanitation and hygiene in national policy and planning agendas, and the stimulus that could be provided by greater regional cooperation. Other themes explored during the press conference were: the challenges posed by climate change and population growth; the opportunity presented by use of the media to disseminate sanitation and hygiene messages; and the potential importance of alternative sources as water resources become increasingly stretched, including rainwater harvesting and wastewater recycling. In addition, the representatives of the development partners reaffirmed their commitment to supporting water and sanitation programmes throughout East Asia.

2.9 Development of regional action plan for sanitation and hygiene in East Asia

Through a series of sessions and workshops, the basics of a regional action plan for sanitation and hygiene in East Asia were developed. The process commenced with simultaneous workshops on the afternoon of 28 January 2010, exploring four thematic areas: institutional arrangements and policy; financing and resource mobilization; knowledge products and technologies; and emergency sanitation. The outcomes of those workshops are summarized in section 2.9.1.

On the morning of 29 January 2010, following the formal closure of EASAN-2, the issues arising from the workshop deliberations were further explored in a meeting of TWG-WHS members, representatives of participating countries, and members of the Secretariat of EASAN-2, with breakout discussion groups adding further detail on how the actions proposed might be practically achieved within the context of a regional action plan (section 2.9.2).

On the afternoon of 29 January 2010, a donors' round table held further discussions on the draft regional action plan, focusing on the relevance of the plan to activities that might be undertaken by the donor community (section 2.9.3).

The outcomes of the entire process are summarized in Annex 4, "Regional action plan for sanitation and hygiene in East Asia: recommendations", which forms the basis for further discussion on the development of the regional action plan.

2.9.1 Simultaneous workshops on challenges, solutions and opportunities for cooperation

During the session, four simultaneous workshops took place on major challenges identified with regard to sanitation and hygiene in the East Asia region, proposed solutions, and opportunities for bilateral or multilateral cooperation in applying those solutions. The workshops explored four thematic areas: institutional arrangements and policy; financing and resource mobilization; knowledge products and technologies; and emergency sanitation. The aim of the session was to prioritize actions for inclusion in the proposed regional action plan for sanitation and hygiene in East Asia, which would be discussed further at TWG-WHS and donor meetings due to take place on the following day. The following subsections summarize the outcomes of the four workshops.

2.9.1.1 Institutional arrangements and policy (Facilitator: Ms Rosario Aurora Villaluna)

The workshop on institutional arrangements and policy identified the following major challenges requiring priority regional action:

- (1) inadequate or non-existent policies on sanitation (compounded by lack of budget allocation);
- (2) failure to prioritize sanitation, and lack of political will to rectify the situation;
- (3) weak community participation, with the preferences of women and children accorded low priority; and
- (4) weak monitoring systems.

Proposed solutions were as follows:

- (1) Countries to develop SMART (simple, manageable, achievable, realistic and timely) sanitation road maps based on national sector assessments.
- (2) Generate donor or private sector support for regional and country initiatives.
- (3) Develop a post-EASAN-2 action plan at country level.
- (4) Carry out a sanitation education campaign.
- (5) Develop a regional monitoring system consistent with JMP methodology.

Further detail on the recommendations can be found in Annex 4.

2.9.1.2 Financing and resource mobilization (Facilitator: Ms Nene Narvaez)

The workshop on financing and resource mobilization identified the following major challenges requiring priority regional action:

- (1) lack of policy on financing for sanitation, including subsidies;
- (2) lack of financial resources for construction, operation and promotion; and
- (3) poorly used financial resources.

Proposed solutions were as follows:

- (1) Develop clear financing policies for sanitation
- (2) Make available financial resources for construction, operation and promotion of sanitation facilities
- (3) Improve the utilization of available financial resources.

Further detail on the recommendations can be found in Annex 4.

2.9.1.3 Knowledge products and technologies (Facilitator: Mr Dan Lapid)

The workshop on knowledge products and technologies identified the following major challenges requiring priority regional action:

- (1) weak advocacy and social marketing;
- (2) lack of skills, knowledge and capacity;
- (3) inadequate technologies and poor facilities; and
- (4) lack of a good database and information management.

Proposed solutions were as follows:

- (1) Develop and utilize innovative toolkits.
- (2) Conduct regional forums.

- (3) Carry out cross-visits and study tours.
- (4) Upgrade technologies and facilities.
- (5) Develop database and information systems.

Further detail on the recommendations can be found in Annex 4.

2.9.1.4 Emergency sanitation (Facilitator: Mr Edkarl Galing)

The workshop on emergency sanitation identified the following major challenges requiring priority regional action:

- (1) low levels of awareness on the need for emergency sanitation;
- (2) lack of short-term and long-term technical solutions; and
- (3) bureaucratic and operational procedures hampering timely response.

Proposed solutions were as follows:

- (1) Raise the profile of emergency sanitation.
- (2) Build capacity for sanitation in emergencies.
- (3) Develop plans, procedures and standards for emergency sanitation.

Further detail on the recommendations can be found in Annex 4.

2.9.2 Further development of regional action plan (Facilitator: Dr Elisea Gozun)

On the morning of 29 January 2010, a meeting took place to discuss further the priority areas for regional cooperation that had emerged from the round table of heads of delegations (section 2.8), and the simultaneous workshops on challenges, solutions and opportunities for cooperation (section 2.9.1). The aim of the meeting was to make progress in taking account of the outcomes of those sessions in drafting a regional action plan for water and sanitation in East Asia. Those participating in the meeting were members of TWG-WHS, representatives of participating countries, and members of the Secretariat of EASAN-2.

2.9.2.1 Introduction to session and group discussions

Dr Gozun, introducing the session, reminded those present that while much of the action needed to attain the MDG targets was country based, attaining those targets would be greatly facilitated by regional cooperation in certain priority areas. Four working groups had been assigned to discuss proposed areas for regional cooperation in order to assist in developing a regional action plan (section 2.9.1). The current session would consider the outcomes of those working groups in more detail.

The facilitators of the working groups then presented the outcomes of the working group discussions on the four thematic areas (institutional arrangements and policy, financing and resource mobilization, knowledge products and technologies, and emergency sanitation).

Following the presentations, Dr Gozun said that the aim now was to transform those proposals into specific activities. To discuss the issues further the meeting split into four discussion groups. Each group was assigned with the task of classifying activities into two broad categories: those appropriate to the national level, and those best dealt with at the regional level.

2.9.2.2 Reporting back and summary of findings

Following their discussions, the groups reported back to the plenary session, summarizing their findings.

- (1) The representative of the group on institutional arrangements and policy said that a road map was of basic importance, and should take into account the SMART principles (simple, manageable, achievable, realistic and timely). The road map would help generate donor or private sector support, and would assist in developing country-level action plans.
- (2) The representative of the group on financing and resource mobilization said that a clear financing framework was essential, as it was the budgetary dimension of the sanitation road map. A compendium of financing best practices, of which there were several examples in East Asia, would prove instructive. Coordination of financing between donors, governments and other agencies was important.
- (3) The representative of the group on knowledge products and technologies said that the group had focused on recommendations that were important to follow up at the regional level. Cross-regional visits between South Asia and East Asia could prove beneficial. Valuable knowledge also occurred within the region, for example the Malaysia experience with urban sewage. Also, the variety of environmental and sociocultural settings in the region needed to be acknowledged when developing technical solutions, and regional seminars could be an appropriate means of discussing that issue.
- (4) The representative of the group on emergency sanitation drew a distinction between the primary players in a disaster, who were national, and the secondary players, constituting the international response. In such circumstances it is important not only to prioritize resources, but also to know where they are and who will provide them. The importance of disaster preparedness was still insufficiently acknowledged.

2.9.2.3 Follow-up actions

Following the presentations, Dr Gozun thanked the participants for their contributions, which would be presented to the donors at the ensuing round table, to help gauge which areas were of special interest to each donor. She then looked forward to EASAN-3 in Indonesia, for which TWG-WHS would provide the following technical support: prepare a regional sanitation report for EASAN-3; monitor progress in the development and implementation of the regional action plan; disseminate information to countries during the planning phase of EASAN-3; and work with the host of EASAN-3 to identify and assist with technical aspects of the conference. In conclusion Mr Jin Yinlong, Chair of TWG-WHS, thanked those present for their support, and gave his assurance that TWG-WHS would make its best efforts to ensure the success of regional processes, including with respect to EASAN-3.

2.9.3 Donors' round table

2.9.3.1 Attendance and introduction

On the afternoon of 29 January, a donors' round table took place to discuss the draft regional action plan for sanitation and hygiene in East Asia. Representatives of the following international development partners attended: Japan International Cooperation Agency (JICA), UNICEF, USAID, WHO and WSP. Those present were as follows:

- Ms Maylene Beltran, Department of Health, Philippines;
- Ms Florida Chan, Senior Programme Officer, JICA;

- Mr Colin Davis, Deputy Representative, UNICEF;
- Mr Jose Dulce, Development Assistance Specialist, USAID, Philippines;
- Ms Leila Elvas, WSP;
- Ms Doreen Erfe, Philippine Water Revolving Fund Support Program (PWRFSP);
- Mr Edkarl Galing, WSP/World Bank;
- Dr Bebet Gozun, Consultant, EASAN Conference Director, Philippines;
- Dr Mohd Nasir Hassan, Environmental Engineer, WHO Office in Cambodia;
- Mr Mark Henderson, Regional Adviser, Bangkok, UNICEF;
- Mr Jose Hueb, Consultant, WHO;
- Mr Bonifacio Magtibay, WHO Office in the Philippines;
- Ms Alma Porciuncula, Chief of Party, USAID PWRFSP;
- Mr Jan Willem Rosenboom, Country Team Leader, Acting Regional Team Leader, WSP-EAP;
- Saengroj Srisawaskraisorn, WatSan Programme Manager, USAID Regional Development Mission for Asia;
- Mr Jay Tecson, WSS Specialist, USAID Philippines Sanitation Alliance Project and ECO-Asia;
- Mr Terrence Thompson, Regional Adviser, WHO Regional Office for the Western Pacific
- Mr Bruce Tillman, WASH Specialist, UNICEF.

The session was chaired by Ms Maylene Beltran, Department of Health, Philippines, who said that the objective of the session was to present to development partners the draft regional action plan that had emerged from discussions during EASAN-2, and gather their recommendations for further refinement of the action plan. The round table then discussed the main components of the action plan, as they had emerged from the discussions involving TWG-WHS (section 2.9.2): institutional arrangements and policy; financing and resource mobilization; knowledge products and technologies; and emergency sanitation.

2.9.3.2 Presentations and discussion

The proposals on institutional arrangements and policy were presented by Mr Hueb. On the matter of the dissemination of information on sector assessment and the development of national plans, Mr Thompson said that that was best led by heads of national delegations.

With regard to the issue of a regional monitoring system, Mr Rosenboom asked whether there was a need for such a system, given that GLAAS and JMP were already in place. Mr Hueb responded that the East Asia sanitation report had stimulated countries to produce their own information, and there was a need to update and analyse the data through a region-specific mechanism in time for EASAN-3 in order to determine whether challenges had been addressed.

The regional monitoring system would go beyond the coverage of JMP and GLAAS and address the regional information requirements of EASAN countries. Mr Galing said that, with 2015 fast approaching, there was a need to consider the time-frame and the relevance of the information gathered by country programmes. Mr Hueb replied that the regional system would develop a methodology that would be relevant to each country. Further discussion followed on issues related to gathering and using data, including how donors could use the MDG statistics to guide their programmes, and how to correlate and compare data from disparate sources.

The proposals on financing and resource mobilization were presented by Ms Porciuncula. Dr Hassan asked if there had been much discussion on what levels of investment in sanitation would be required to close the 6% gap in meeting the MDG target. Mr Hueb said that the issue might be best addressed by TWG-WHS. Ms Porciuncula said that the investment requirement could be included as part of the demand assessment for sustainable sanitation technologies.

Mr Rosenboom said that a major challenge was the lack of policy; while it was up to each country to develop its own policy, the process could be assisted by the recommendation to prepare a compendium of best practices. Ms Porciuncula said the regional road map was envisioned as providing a broad framework within which countries would develop their own financing policies. TWG-WHS would be asked to assist in initiating the development of the framework; Malaysia was requested to take the lead in the preparation of the compendium of best practices and models.

The proposals on knowledge products and technologies were presented by Mr Thompson. Several participants drew attention to existing toolkits and other knowledge products, and Mr Rosenboom said that it was a good idea to disseminate and utilize toolkits that were already available. Another participant suggested that there should be a meeting for lower-level officers between EASAN conferences for reporting on the status of their national action plans. On the database and information systems, Mr Magtibay asked what would be the platform for sharing information, and whether a website would be developed. Links with academia should be explored, for example with regard to standards and technologies.

The proposals on emergency sanitation were presented by Mr Galing. Dr Hassan said that it would be useful to know who could provide the resources needed during disasters, underscoring the importance of regional networking. Mr Hueb said that there were many organizations already doing that, including UNICEF and WHO, and caution should be taken in identifying activities that needed to be covered by regional cooperation; what was crucial was the level of preparedness. A gaps assessment was needed to identify areas for regional cooperation on emergency sanitation. Mr Henderson said that establishment of a cluster or emergency theme group on a long-term basis was an effective measure, as had been demonstrated in Indonesia. Mr Tillman said that standards for emergency sanitation should be developed, and governments should be aware of any standards that were in place.

At the end of the session, it was agreed that the comments and recommendations raised by the donor representatives would be considered for integration in the revised regional action plan for sanitation and hygiene in East Asia. Notably, the emerging areas that donors could support included compilation of best practices and models on sanitation financing and knowledge products and technologies in the region; gathering and assessment of data on sanitation; dissemination of guidelines and toolkits on technologies; and institutionalization of a regional network and gaps assessment on emergency sanitation.

2.10 Closing ceremonies

On the afternoon of 28 January 2010, the closing ceremonies took place, chaired by Dr Gozun.

2.10.1 Report on outcomes of round table of heads of delegations

Dr Villaverde reported on the outcomes of the round table of heads of delegations earlier that afternoon (section 2.8). He said that the Manila Declaration on Sanitation and Hygiene in East Asia had been finalized and approved during the round table, and had been signed by the 13 heads of delegations. He read the text of the Declaration to the assembled participants, who expressed their approval by acclamation.

2.10.2 Closing statement by Mr Bert Hofman, Country Director, World Bank, Philippines

Mr Bert Hofman, Country Director, World Bank, Philippines, gave a statement on behalf of the development partners. He congratulated the participants on the success of the conference, particularly the adoption of the Manila Declaration. He had been very impressed with the knowledge around the table at the meeting of heads of delegations, which had proved a forum worthy of furthering the sanitation agenda of the East Asia region. While the region had seen marked economic success over the previous 40 years, progress in sanitation had been mixed, with some countries attaining all their targets while others had lagged.

Beyond the aspect of human dignity, he continued, plain economics presented a powerful argument, and he was gratified to see that calculations of economic impact were increasingly being used to advocate progress in sanitation, with losses equalling up to 1.5% of gross domestic product being incurred by countries of the region due to inadequate sanitation. It was clear that from an economic standpoint sanitation was worthy of more investment. The starting point was political commitment; the attendance of so many high-level participants at the present conference was proof of that commitment. As the World Bank Country Director for the Philippines, he was proud to see the country represented at the conference by Mr de Castro, Vice-President of the Philippines, and Ms Cabral, Secretary of the Department of Health.

That commitment was increasingly being demonstrated financially; for example, Indonesia had tripled its budget allocation for sanitation during the current year. The challenge was to spend that funding well, and turn that commitment into more action on the ground, which in turn required increased knowledge building to ensure that the funding available was utilized effectively. EASAN-2 had therefore been of value in promoting knowledge exchange and innovation, leading to improved outcomes and further justifying the call for increased allocation of resources for sanitation. The decision to continue the regional platform with EASAN-3 was praiseworthy.

In conclusion, he said that the development partners were committed to the regional sanitation agenda. Increasingly, in the water and sanitation portfolio, loans were shifting to sanitation needs, and a number of successful, innovative partnerships were in place. With increased political commitment, matched by increased allocation of resources, the MDG targets could be attained.

2.10.3 Closing statement by Dr Mario Villaverde, Undersecretary for the Department Health, Philippines

In his closing statement, Dr Villaverde said that during the previous two days he had witnessed insightful exchanges and discussions about the implementation of sanitation programmes in participating countries. While recognizing that different countries had different challenges related to technology, infrastructure, financing, marketing and other issues, he hoped

that the participants had gathered valuable ideas and lessons from EASAN-2 that could help in solving their local problems. He hoped also that, despite their domestic concerns, the participants had been able to sift out, from the considerable inputs, the most urgent priorities and best approaches for the proposed regional action plan, noting the consensus that TWG-WHS would play a proactive role in facilitating and monitoring that plan.

He emphasized several matters that he considered inseparable. First, a magnificent plan was futile without concrete action. Second, there was close interconnection between the country sanitation and hygiene programmes that formed the basis for the overall regional programme – we were in the same boat in the same ocean, so to speak, and individual achievement could only be considered successful if it contributed to overall success. Third, continuity and sustainability were required if the programmes of today were to contribute to a brighter and clearer future. In conclusion, on behalf of the Department of Health and the Government of the Philippines, he thanked the participants and all those who had contributed to the conference.

2.10.4 Handover to EASAN-3 host and closure of conference

Dr Villaverde requested the head of delegation of Indonesia, Mr Budi Hidayat, to step forward and formally receive the EASAN flag as a symbol of Indonesia's commitment to hold EASAN-3 in 2012. Mr Hidayat accepted the invitation with a message of thanks to the organizers of EASAN-2.

The conference was formally closed at 5:45 PM on 28 January 2010.

MANILA DECLARATION ON SANITATION AND HYGIENE IN EAST ASIA
Second East Asia Ministerial Conference on Sanitation and Hygiene
Manila, Philippines, 27–29 January 2010

Whereas, 800 million people in East Asia still lack access to improved sanitation facilities, resulting in the poor health and quality of life of men, women and children and imposing heavy economic burdens on countries in the region;

Whereas, the latest statistics for the region indicate that the Millennium Development Goal target for sanitation might be missed by 6 percentage points if the development trend of the past years persists to 2015;

Whereas, this reality highlights the urgent need to undertake the required action to reverse this trend and to attain the Millennium Development Goal target to halve the proportion of people without access to improved sanitation by 2015;

Whereas, our governments are signatories to United Nations General Assembly resolution A/RES/61/192 of 2007, by which all States and other stakeholders are encouraged to promote action on sanitation at all levels, taking into account the recommendations of the Hashimoto Action Plan;

Whereas, our governments approved the Charter of the Regional Forum on Environment and Health and the workplans of the six regional Thematic Working Groups, including one on water supply, hygiene and sanitation, in 2007;

Whereas, convening the first East Asia Ministerial Conference on Sanitation and Hygiene (EASAN-1) in Beppu, Japan, 30 November and 1 December 2007, our countries came together and adopted the Beppu Declaration, whereby ministries committed to take the necessary steps to achieve or exceed the Millennium Development Goal target for sanitation by improving the level of investment in the sector and enabling the participation of different stakeholders, including women, children, poor families and civil society;

Whereas, the Beppu Declaration also called for stronger regional cooperation between and among the countries of the region to facilitate the sharing of best practices and knowledge to effect meaningful change;

Whereas, in January 2010 there was a Follow-up Conference of the International Year of Sanitation held in Tokyo, Japan, which proposed the creation of an International Half Decade for Sustainable Sanitation (2010–2015) as a vehicle to maintain the momentum for initiatives taken and as a catalyst for change;

Now, therefore, we, the representatives of government agencies in charge of sanitation and health in 13 countries who have come together to attend the Second East Asia Ministerial Conference on Sanitation and Hygiene (EASAN-2) held in the City of Manila, 27–29 January 2010, hereby:

Reiterate that access to basic sanitation and water supply, including drinking-water, and the practice of hygienic behaviours are all necessary for the health and well-being of the population and for people to live in dignity and safety;

Recognize that sanitation and hygiene must be viewed from a systems point of view, from toilets to collection, transport, processing, treatment and final use or disposal, including hygienic practices, considering that an incomplete system would render great risks to the environment and subsequently put public health at risk;

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Believe that improving water supply, improving sanitation, handwashing, household water treatment and safe storage are integral parts of human development and that heightened public awareness, in the context of local conditions, on handwashing and hygiene is effective in reducing the transmission of communicable diseases;

Acknowledge that human excreta, if properly managed, can be a resource that can be harnessed as organic fertilizer to promote sustainable agriculture, enhancing the quality of soils while lessening the use of inorganic fertilizers;

Acknowledge that wastewater, when adequately treated, can be reused for enhanced development of agriculture and other purposes;

Believe that emergency sanitation and hygiene needs special focus and attention, given the vulnerability of the East Asia region to more extreme weather conditions and other impacts of climate change, and that the inputs of experts, researchers, inventors and business enterprises are needed to find dynamic solutions to this extreme challenge, so that efforts for increased sanitation coverage are not compromised;

Realize that strong political will at all levels is needed to achieve sustainable sanitation and that a regional initiative can constructively focus national attention on this issue.

Accordingly, we reiterate the commitments expressed in the Beppu Declaration and believe that we can achieve sustainable sanitation if we work together.

In addition, we commit to:

- (1) Meet our national Millennium Development Goal-based sanitation targets by making sustainable sanitation a part of our national development strategy, committing to specific time-bound targets, and formulating national sustainable sanitation roadmaps with the appropriate allocation of human, financial and logistical resources for their implementation;
- (2) Adopt sustainable sanitation and hygiene policies that protect public health and the environment, with specific goals and financial targets, and promote the formulation of national sustainable sanitation roadmaps that accelerate the attainment of the Millennium Development Goal targets on water and sanitation, matched to our economic, social and environmental situations, and that guide us towards good governance, institution building, capacity development, infrastructure and investment strategies, financing and strategic alliance building to make our sanitation systems work for us;
- (3) Build regional and multistakeholder sustainable sanitation partnerships among governments, different levels of government, civil society, the private sector, academia, nongovernmental organizations and others to raise awareness, mobilize resources and exchange knowledge on sanitation and hygiene development in each of the following areas: promotion of hygienic behaviours, improvement of household sanitary arrangements, and sewage collection, treatment and safe disposal;
- (4) Facilitate regional collaboration and support to assist countries in our region to fast-track the achievement of the Millennium Development Goal sanitation targets by:
- (5) holding regional and subnational exchanges, such as country-to-country or city-to-city cross-trainings, sharing of sanitation experts and study tours;

- (6) conducting regional studies and researches on good practices in hygiene and sanitation, including excreta management;
- (7) promoting the sanitation agenda among other regional forums and networks to strengthen regional linkages and cooperation;
- (8) Ensure the final treatment for septage and septic tank effluents before wastewater is released to the environment to protect public health and the environment;
- (9) Provide capacity support to subnational and local governments to enable them to effectively and efficiently implement sanitation and hygiene programmes and projects;
- (10) Promote the co-benefits of sustainable sanitation and sustainable agriculture as we address the pressing needs for food security and adequate water supply;
- (11) Establish a national multisectoral committee to help concerned ministries formulate and implement sanitation and hygiene action plans with quantifiable targets and time frames;
- (12) Continue to convene regularly through EASAN as the regional platform for cooperation in sanitation and hygiene among East Asian countries and between our region and other regions in the world, with a commitment to hold EASAN-3 in 2012 to assess our country and regional progress against our commitments with regard to the Millennium Development Goals;
- (13) Request the Regional Forum on Environment and Health to mandate the Thematic Working Group on Water, Hygiene and Sanitation to act as the regional platform for facilitating cooperation in East Asian countries towards the improvement of sanitation and hygiene, to collaborate with the EASAN-3 host country in the planning and organization of EASAN-3, and to support the planning and implementation of follow-up action plans;
- (14) Promote the implementation of national sanitation, hygiene and water sector assessment programmes as a means to generate crucial information for decision- and policy-making in our countries;
- (15) Call on countries that are developed in sanitation and hygiene to support less-developed countries in improving their sanitation and hygiene status;
- (16) Call on other regional and global forums and organizations to support the statements, principles and commitments of EASAN-2 and our efforts in pursuit of this Declaration;
- (17) Express support for the creation of the International Half Decade for Sustainable Sanitation, 2010–2015.

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And in recognition of this, we make this declaration on 28 January 2010

Mr Haji Suhaimi bin Haji Gafar, Acting Director-General, Public Works Department, Brunei

Mr Sao Chivoan, Secretary of State, Ministry of Rural Development, Cambodia

Mr Bai Huqun, Deputy Director-General, Ministry of Health, China

Mr Budi Hidayat, Director of Housing and Planning, Bappenas, Indonesia

Mr Eksavang Vongvichit, Vice-Minister, Ministry of Health, Lao People's " Democratic Republic

Mr Haji Japar bin Abu, Senior Undersecretary, Sewerage Services Department, Ministry of Energy and Green Technology, Malaysia

Mr Ganbold Davaadorj, Vice-Mayor, Ulaanbaatar, Mongolia

Mr Paing Soe, Deputy Minister, Ministry of Health, Myanmar

Dr Mario C. Villaverde, Undersecretary, Department of Health, Philippines

Mr Satish Appoo, Director of Environmental Health, Department of Environment and Natural Resources, Singapore

Mr Somyos Deerasamee, Director-General, Ministry of Public Health, Thailand

Ms Madalena Fernandes Melo Hanjam Costa Soares, Vice-Minister, Ministry of Health, Timor-Leste

Mr Cao Lai Quang, Vice-Minister, Ministry of Health, Viet Nam

PROGRAMME OF WORK: SUMMARY

Date/time	Session	Activity
Wednesday, 27 January 2010		
0900–0910	–	Opening ceremonies National anthem Interfaith prayer Introduction of delegates
0910–0915		Welcome remarks: Mario Villaverde, Undersecretary for Health, Philippines
0915–0930		Keynote address on sustainable sanitation: Noli de Castro, Vice-President of Philippines
0930–1000		Opening of exhibits
1030–1035		Opening statement: Esperanza Cabral, Health Secretary
1035–1045	1	Conference background and objectives Overview of conference: Mario Villaverde
1045–1130		Regional status report on sanitation Background to regional status report: Jin Yinlong Findings of regional status report: Terrence Thompson
1130–1200		Open forum
1330–1410	2	Studies on evidence-based decision-making Benefit–cost analysis of sanitation options: Almud Weitz Evidence-based health impacts of sanitation and hygiene on children: Therese Dooley
1410–1430		Open forum
1430–1500	3	Priority areas for regional cooperation Proposed priorities for regional cooperation: Chea Samnang
1500–1530		Open forum
1545–1730	4	Country sharing I: simultaneous workshops
	4.1	Institutional arrangements and policy: facilitator Rory Villaluna Improving urban and rural sanitation in China: Bai Huqun Settlement Sanitation Development Acceleration Programme, Indonesia: Budi Hidayat Unified sanitation, Viet Nam: Pham Khanh Toan Policy towards universal sanitation coverage, Thailand: Twisuk Pungpeng

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	4.2	<p>Financing and resource mobilization: facilitator Nene Narvaez Sanitation strategy and financing, Cambodia: Chea Samnang Microfinance innovation in housing and sanitation for the poor, Philippines: Ruben C. de Lara Direction of water services industry, Malaysia: Haji Japar bin Abu</p>
	4.3	<p>Knowledge products and technologies: facilitator Dan Lapid Role of advocacy: Vandana Mehra & Yosa Yuliarsa Designing sanitation, Cambodia: Mr Cordell Jacks Water reuse, Singapore: Mr Wah Yuen Long</p>
	4.4	<p>Emergency sanitation: facilitator Edkarl Galing Sanitation in emergencies: Therese Dooley Responding to a cholera outbreak in Lao People's Democratic Republic: Soutsakhone Chanthaphone Emergency management of post-disaster situations, Indonesia: Susmono Impacts of typhoon Ondoy, Philippines: Ronald Abrigo & Nick Hilton</p>
1845–1900	5	<p>Messages from development partners Sanitation and Water for All: a Global Framework for Action: Clarissa Brocklehurst Global Annual Assessment on Sanitation and Drinking-Water: Peregrine Swann</p>
Thursday, 28 January 2010		
0900–0910	5	Recap of day 1 and programme for day 2: Bebet Gozun
0910–0930	5	<p>Key messages Message from UNSGAB to EASAN-2: Olivia la O' Castillo Follow-up Conference of the International Year of Sanitation: Amy Leung</p>
0930–1200	6	Country sharing II: simultaneous workshops
	6.1	<p>Institutional arrangements and policy: facilitator Olivia la O' Castillo National Five-Year Strategic Plan for Water, Sanitation and Hygiene, Myanmar: Paing Soe Water governance, Mongolia: Davaa Basandorj Philippines Sustainable Sanitation Sector Roadmap: Rory Villaluna Development of national sanitation policy, Timor-Leste: Madalena F. Melo Hanjam Costa Soares Improving rural environmental sanitation, China: Zhao Hui</p>
	6.2	<p>Septage management: facilitator Jay Tecson Rapid assessment of septage management in Asia: Niels van Dijk & Linda Shi Panellists: Abdul Kadir bin Mohd Din & Mark Tom Mulingbayan</p>

	6.3	Total sanitation: facilitator Almud Weitz Panellists: Pom Chreay, Devi Setiawan, Mohd Nasir Hassan, Therese Dooley
1400–1700	7	Round table & simultaneous workshops
1400–1700	7.1	Round table & press conference
1400–1600	7.1.1	Round table of heads of delegations: Chair Mario Villaverde
1600–1700	7.1.2	Press conference
1400–1700	7.2	Simultaneous workshops on challenges, solutions and opportunities for cooperation
1400–1600	7.2.1	Institutional arrangements and policy: facilitator Rory Villaluna
	7.2.2	Financing and resource mobilization: facilitator Nene Narvaez
	7.2.3	Knowledge products and technologies: facilitator Dan Lapid
	7.2.4	Emergency sanitation: facilitator Edkarl Galing
1600–1700	7.2.5	Reporting of workshop outputs: facilitator Bebet Gozun
1700–1830	8	Closing ceremonies Report on outcomes of round table of heads of delegations: Mario Villaverde Closing statement by World Bank Country Director, Philippines: Bert Hofman Closing statement by Undersecretary for Health: Mario Villaverde Handover to EASAN-3 host and closure
Friday, 29 January 2010		
0730–1200	–	Technical field visits: Emergency sanitation in an evacuation centre in Muntinlupa City, Metro Manila Combined sewage and septage treatment, Food Terminal Inc. compound, Taguig City Decentralized water treatment plant, Dagat Dagatan, Navotas
0900–1200	–	Drafting of regional action plan: facilitator Bebet Gozun
1200–1330	–	Donors' round table

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REGIONAL ACTION FOR SANITATION AND HYGIENE IN EAST ASIA: RECOMMENDATIONS

Action agenda	Proposed activities	Target date / frequency	Responsible parties (national & regional)
Institutional arrangements and policy			
1. Countries to develop SMART (simple, manageable, achievable, realistic and timely) sanitation roadmaps based on national sector assessments	Disseminate information on sector assessment Prepare a guide on how to prepare the roadmap; countries can decide whether to adopt it or modify it Promote mechanisms for exchange of information on successful experiences		
2. Generate donor or private sector support for regional and country initiatives			Refer to Finance Working Group
3. Develop a post-EASAN-2 action plan at country level	Encourage development of action plans at country level TWG-WHS member from each country to disseminate the outputs of EASAN-2, pick up relevant issues and develop action plan Consider the Manila Declaration in the national action plan Brief national stakeholders on the outputs of EASAN-2 through a wide dissemination of the outputs		
4. Carry out a sanitation education campaign	Organize a sanitation week coinciding with World Toilet Day or Handwashing Day Implement national sanitation week Identify national sanitation champions Develop and implement a national sanitation communication plan		

Action agenda	Proposed activities	Target date / frequency	Responsible parties (national & regional)
5. Develop a regional monitoring system consistent with JMP methodology	Develop a methodology to derive national or subnational coverage estimates compatible with the JMP methodology Encourage the use of information generated for the regional monitoring system for their own analysis of the sector Have national representation in developing the regional monitoring system Generate information required regionally using existing or improved national information systems Harmonize different statistics on sanitation coverage		
Financing and resource mobilization			
1. Develop clear financing policies for sanitation	Advocate inclusion of a clear financing framework, including the allocation of public resources such as grants and subsidies, in the preparation of the sanitation roadmap	Within 6 months	Individual countries
	Prepare a compendium of financing best practices and models at strategic level (for the framework) and local level (specific country experiences such as Malaysia's PAAB, Viet Nam's OBA, Philippines' PWRP)	6 months to come up with the framework Compendium to be reported in EASAN-3	TWG-WHS to come up with the framework Malaysia to take the lead in putting together the compendium Countries to contribute to the best practices report
2. Make available financial resources for construction, operation and promotion of sanitation facilities	Prepare a compendium of donor assistance programme and regional programmes that can be tapped for technical assistance and capital investments Establish a networking mechanism among donor agencies and national governments	6 months	TWG-WHS

Action agenda	Proposed activities	Target date / frequency	Responsible parties (national & regional)
	Identify appropriate financing schemes for specific technologies, e.g. microfinance schemes for the poor	3–6 months: get commitment from TWG-WHS to undertake the survey	TWG-WHS
	Conduct an assessment of demand for sustainable sanitation technologies to promote private sector investment		Refer to Institutional Working Group
3. Improve the utilization of available financial resources	Improve coordination among development partners and government agencies		To be done at the national level: link with Institutional Working Group; Indonesia to share experience
	Tie the use of funds to performance-based indicators		Refer to Institutional Working Group
	Educate beneficiaries and recipients (local governments, community, individual households) on the importance of the sector		Refer to Institutional Working Group
Knowledge products and technologies			
1. Develop and utilize innovative toolkits	Carry out inventory of existing toolkits Prioritize the most useful toolkits and translate them into local languages Determine the need to develop new toolkits		
2. Conduct regional forums	Year 1: EASAN for high-level institutional and policy action Year 2: forum for technical-level action		

Action agenda	Proposed activities	Target date / frequency	Responsible parties (national & regional)
3. Carry out cross-visits and study tours	Intercountry sharing: Identify countries to be involved in regional conferences (SACOSAN) Request Malaysia to support learning activity on urban sanitation Organize separate regional workshop to tackle sanitation in difficult circumstances		
4. Upgrade technologies and facilities	Conduct regional study on sanitation in difficult circumstances (cold, dry, flooding, etc.) Carry out assessment of sanitation technologies (treatment, operation and maintenance)		
5. Develop database and information systems	Harmonize definitions and data analysis methodologies Promote sani-shops Organize a regional trainers' workshop on harmonized methodology		
Emergency sanitation			
1. Raise the profile of emergency sanitation	Undertake advocacy campaigns (visual and print media) Integrate in the emergency response package (e.g. disaster risk reduction) Identify champions Organize "lifelines" conferences	Once a year in the major cities	Among local government units at national level
2. Build capacity for sanitation in emergencies	Compile emergency tools Undertake exposure trips and study visits Prioritize disaster preparedness emergency sanitation resources (human, technical and financial) Prepare succession plans		

Action agenda	Proposed activities	Target date / frequency	Responsible parties (national & regional)
3. Develop plans, procedures and standards for emergency sanitation	Develop guidelines on emergency sanitation Share resources and experiences among countries (regional response) Ensure that disaster support institutions (local government units, utilities: power, water and communications, etc.) have standard operating procedures and clear roles and responsibilities Conduct inventory of resources		

