Meeting the Sanitation and Water Challenge in South-East Asia and the Pacific

08

SYNTHESIS REPORT ON THE SANITATION AND WATER CONFERENCE

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INTERNATIONAL WATERCENTRE
Australian Government AusAID
WaterAid Australia

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Conference Statement

We, the 200 participants of the Sanitation and Water Conference Melbourne 2008, recognise a major international crisis. Thousands of children die from water, sanitation and hygiene (WASH)-related diseases every day. Millions more people continue to suffer ill-health, missed educational opportunities, lost productivity, indignity, and environmental degradation, with the burden falling significantly on the poor and vulnerable, women and girls.

The cost of inaction is enormous. WASH is a fundamental underpinning to achieving the Millennium Development Goals (MDGs). In 2008, the UN International Year of Sanitation, we affirm that lives could be saved, and life-changing gains could be made for future generations, through more urgent and comprehensive efforts to tackle sanitation and hygiene challenges now.

Despite our best efforts, rural water supply breakdown rates remain extremely high, services for millions of the urban poor are far from sufficient, urban non-revenue water levels remain unacceptably high; and 100 million people in South East Asia continue to practice open defecation. In addition, few existing approaches address gender inequities and, in others, cultural insensitivity limits impact. Diverse and dispersed areas like the Pacific Islands present unique challenges.

At this conference, we agree that, to achieve the scaling up required for sustainable provision of these basic services and hygiene behaviour changes, we require paradigm shifts, inter-sectoral action, consistent support over time to help reformers to reform, encouragement of innovation, and overall, major advances on 'business as usual'.

To effect this significant change, we recognise that all sector stakeholders need to do better. We call for the following urgent and sustained nationally-led actions to:

1. strengthen national political leadership through evidence-based advocacy
2. develop national strategies tailored to local priorities and needs
3. do sanitation differently:
   - provide incentives for collective sanitation outcomes
   - build and share the evidence base on sanitation
   - promote phased approaches to sanitation and hygiene development
   - embrace evolving approaches to behaviour change
   - tailor the approach to value the culture, local skills and strengths
   - develop separate sanitation and water programs and policies
4. use public sector and donor finance to leverage and support investment by other stakeholders
5. improve accountability and leadership for water supply, sanitation, and hygiene
6. strengthen capacity commensurate with the scale of this crisis
7. maximise the potential of NGOs in the sector
8. promote entrepreneurship of local private sector and small-scale service providers
9. strive for sustainability in all our activities
10. implement lessons learned on water supply to:
    - maintain a strong gender focus in rural areas
    - support utility reform in urban areas
    - assign clear institutional responsibilities in peri-urban areas and slums.

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Foreword

Around 2.5 billion people, almost two fifths of the world's population, do not have access to adequate sanitation. Over 880 million people, roughly one person in eight, do not have access to safe water.

Behind these staggering statistics are daily struggles faced by families to lead healthy and dignified lives. Children, especially adolescent girls, don't go to school if there are no proper toilets and safe drinking water. Women pay the highest cost for lack of access to sanitation and safe water yet their voices are weakest in decision making around these investments. The International Year of Sanitation in 2008 was an important effort to focus global attention on these people.

Sanitation is a good economic investment. People with access to proper sanitation take fewer days off work, and increased attendance at schools with proper toilets and safe drinking water has clear positive impacts on children's life chances. Tragically, sanitation is one of the most off-track Millennium Development Goal targets. The latest estimates indicate that the goal to halve the proportion of people without access to sanitation will not be met until the next century in sub-Saharan Africa.

Access to sanitation and water is fundamental to progress across the Australian international development assistance program's poverty reduction agenda, and I am delighted to present this synthesis report on the Sanitation and Water Conference 08 held in Melbourne in October 2008.

The Australian Government was pleased to be able to support the conference as a key part of Australia's contribution to the UN International Year of Sanitation, and the conference was a valuable input into the development of the Government's $300 million 'Access to Clean Water and Effective Sanitation Initiative' and the 'Water, Sanitation and Hygiene Strategy'.

The conference brought together over 200 experts from our region and around the world to share their experience on how to address these problems. We heard many inspiring examples of how this is being done at all levels from the local to the international level. The collective wisdom from the participants has now been synthesised into a set of 10 key strategies a country can follow to tackle sanitation challenges. I commend this report as an excellent tool to help guide future action.

Bob McMullan MP

PARLIAMENTARY SECRETARY FOR
INTERNATIONAL DEVELOPMENT ASSISTANCE

01 INTRODUCTION

This report synthesises the main themes and issues discussed at the Sanitation and Water Conference, held in Melbourne in October 2008. It provides guidance on important directions in the water, sanitation and hygiene (WASH) sector in the Asia–Pacific region in the form of 10 key strategies identified in the Conference Statement. The strategies are elaborated in terms of why they are important and how they might be achieved, and the report concludes with a focus on stakeholder responsibilities to move into action.

02 BACKGROUND

The Sanitation and Water Conference: Meeting the Challenge in East Asia and the Pacific, Melbourne 2008 was inspired by dialogue between the Water and Sanitation Reference Group[1] and the Australian Agency for International Development (AusAID) in late 2007. Both these groups recognised the need for an opportunity to share and discuss best practice for improving access to sanitation and water—particularly among the poor—with a focus on South-East Asia and the Pacific region.

Attended by 200 participants—including representatives from government and non-government organisations, the private sector, water utilities, government representatives from South East Asia and the Pacific, international agencies and donors—the conference was a key activity of the International Year of Sanitation (IYS) in the region. It followed on from the successful East Asia Ministerial Conference on Sanitation (EASAN) held in late 2007, ensuring a stronger focus on the Pacific.

The main objective of the conference was to contribute to improved sanitation and water coverage in developing countries in the South-East Asia – Pacific region through sharing successful models and promising practices for adaptation and program expansion. A key outcome of the conference was a broader collective understanding of what is important, what different sector stakeholders are doing, what approaches are working, and where efforts need re-direction or change.

A companion document, *Supplementary Conference Report*, contains further details about the conference. It includes the full program, summaries of the plenary sessions, the stakeholder action plan developed by participants, and a list of participants[2].

03 CONFERENCE STATEMENT AND KEY MESSAGES

We, the 200 participants* of the Sanitation and Water Conference Melbourne 2008, recognise a major international crisis. Thousands of children die from water, sanitation and hygiene (WASH)-related diseases every day. Millions more people continue to suffer ill-health, missed educational opportunities, lost productivity, indignity, and environmental degradation, with the burden falling significantly on the poor and vulnerable, women and girls.

> “In 2008, the UN International Year of Sanitation, we affirm that lives could be saved, and life-changing gains could be made for future generations, through more urgent and comprehensive efforts to tackle sanitation and hygiene challenges now.”

The cost of inaction is enormous. WASH is a fundamental underpinning to achieving the Millennium Development Goals (MDGs). In 2008, the UN International Year of Sanitation, we affirm that lives could be saved, and life-changing gains could be made for future generations, through more urgent and comprehensive efforts to tackle sanitation and hygiene challenges now.

Despite our best efforts, rural water supply breakdown rates remain extremely high, services for millions of the urban poor are far from sufficient, urban non-revenue water levels remain unacceptably high; and 100 million people in South East Asia continue to practice open defecation. In addition, few existing approaches address gender inequities and, in others, cultural insensitivity limits impact. Diverse and dispersed areas like the Pacific Islands present unique challenges.

At this conference, we agree that, to achieve the scaling up required for sustainable provision of these basic services and hygiene behaviour changes, we require paradigm shifts, inter-sectoral action, consistent support over time to help reformers to reform, encouragement of innovation, and overall, major advances on ‘business as usual’.

* The Sanitation and Water Conference was attended by non-governmental organisations, the private sector, water utilities, South East Asia and Pacific government representatives, international agencies and donor representatives.

To effect this significant change, we recognise that all sector stakeholders need to do better. We call for the following urgent and sustained nationally-led actions to:

1 STRENGTHEN NATIONAL POLITICAL LEADERSHIP THROUGH EVIDENCE-BASED ADVOCACY

Reliable country and regional-level data on outcomes and impacts is needed to convince political leaders, including Ministers' of Finance, of the costs of inaction, and the need for new paradigms. Political commitment must be demonstrated through financial and budgetary prioritisation at national, provincial and local levels. Improved data is needed on services in the Pacific Islands and in urban slums to provide a stronger evidence base for these areas.

2 DEVELOP NATIONAL STRATEGIES TAILORED TO LOCAL PRIORITIES AND NEEDS

Uneven progress and differing challenges require tailored strategies to tackle policy and reform challenges, scale up provision, respond to vulnerabilities due to disasters and reach the poor, the vulnerable and other excluded or un-served groups.

3 DO SANITATION DIFFERENTLY

- Provide incentives for collective sanitation outcomes: Community-wide outcomes generate greater public health and economic gains; improved equity, particularly among women; and empowered communities.
- Build and share the evidence base on sanitation approaches by conducting more monitoring, impact evaluation and research on their sustainability, effectiveness and cost-effectiveness.
- Promote phased approaches to sanitation and hygiene development: Encourage simple, clearly-focused, gender-sensitive interventions that use local technologies to move communities up the sanitation ladder (from eliminating open defecation using community-wide approaches like community-led total sanitation (CLTS); to sanitation marketing to upgrade sanitation facilities; to environmental sanitation improvements in already improved areas).
- Embrace evolving approaches to behaviour change, including the dramatically successful triggering of household demand through disgust. This has brought about rapid and widespread behaviour change, complementing existing health, prestige and other culturally appropriate messages. New skills are needed to support large-scale, high impact behaviour change and health promotion programs.
- Tailor the approaches to value the culture, local skills and strengths, user preferences and needs and increase gender equality.
- Develop separate sanitation and water programs and policies in recognition of the differences in the required approach and challenges, whilst still ensuring integrated water cycle planning.

“Uneven progress and differing challenges require tailored strategies to tackle policy and reform challenges, scale up provision, respond to vulnerabilities due to disasters and reach the poor, the vulnerable and other excluded or un-served groups.”

4 USE PUBLIC SECTOR AND DONOR FINANCE TO LEVERAGE AND SUPPORT INVESTMENT BY OTHER STAKEHOLDERS
Public sector and donor finance provides a relatively small proportion of investment in water and sanitation services compared to user-fees, self-provision by households, and investments by entrepreneurs. Public finance should support collective outcomes; and be used to enable, improve, and expand the services provided by non-public stakeholders. A separate budget line should be provided for sanitation and hygiene in national and local budgets. Appropriate regulatory policies and controls are needed to protect consumers and to encourage even application of private sector activity and quality of service.

5 IMPROVE ACCOUNTABILITY AND LEADERSHIP FOR WATER SUPPLY, SANITATION, AND HYGIENE
Define a lead agency and mechanisms for coordination at the country level, particularly for sanitation. Agree clear roles and responsibilities at all levels. Coordination mechanisms are vital, not least for greater policy coherence and donor harmonisation.

6 STRENGTHEN CAPACITY COMMENSURATE WITH THE SCALE OF THIS CRISIS, especially in sanitation and hygiene promotion. Capacity and skills for service management are essential, particularly in local governments. Skills can be outsourced or leveraged from the private sector or businesses, though public sector agencies need capacity to manage such contracts. There is an emerging overwhelming need for behaviour change skills. This focus on building up local knowledge, leadership and capacity should be reflected in donor policy and requirements, as well as resourced by national and sub-national governments. Capacity building needs to be demand-led, incentive driven, long-term and monitored for effective outcomes.

7 MAXIMISE THE POTENTIAL OF NGOS IN THE SECTOR All stakeholders would benefit from more constructive engagement with NGOs and vice versa. NGOs have key roles to play in terms of innovation and developing models for scaling-up, sharing learning and advocacy, and NGOs should co-ordinate more and undertake more analysis of their costs to enhance their effectiveness.

8 PROMOTE ENTREPRENEURSHIP
Local private sector, small-scale service providers and business support services need to play a greater role in service delivery. Private sector approaches can improve marketing of products and services, build local supply chains, and help informal small-scale providers to become viable businesses, for example through government and donor incentives and regulatory reforms that acknowledge their role. In addition, recognise that large or international private sector players can contribute where regulatory frameworks are established to ensure quality control and protect consumers, especially the poor.

9 STRIVE FOR SUSTAINABILITY IN ALL OUR WASH ACTIVITIES Services need to meet urgent requirements without ignoring their water resources implications and longer-term environmental impacts, particularly in the face of climate change. In response to these issues and new thinking on sustainable water management options such as decentralised systems, various forms of recycling, efficient use of water and alternative sanitation options should be considered, particularly in urban and water-stressed areas. Equally, in terms of program sustainability, resourcing and stronger monitoring of effective on-going operation and maintenance (O&M) are also critical.

10 IMPLEMENT LESSONS LEARNED ON WATER SUPPLY

- Maintain a strong gender focus in water service provision to enhance sustainability through meaningful involvement of women appropriate to the cultural context.
- In rural areas, focus on the objective of safe drinking water at the household level and promote the most appropriate and cost-effective ways of achieving this. Recognise that household water treatment, household-managed facilities, and privately-managed facilities offer immediate solutions. Community management is often a necessary entry point in some rural areas, but over time needs to be made more effective and sustainable with greater support and monitoring from intermediate and local levels of government. Equally, recognise that water supply is needed for many purposes including food security and washing and integrated thinking across these needs is required.
- In urban areas, support utility reform: Strong utilities are critical to serving urban customers. Utilities need to be financially viable, more autonomous and poor-inclusive. Reduce non-revenue water, improve demand management, encourage water efficiency, and conservation and build a stronger customer focus in order to improve efficiency.
- In peri-urban areas and slums, assign clear institutional responsibilities to serve these areas, address land tenure issues and respond to user needs and preferences.

04 CURRENT STATUS OF WASH IN EAST ASIA AND THE PACIFIC

ACCESS AND NEEDS

The latest figures on access to sanitation and water demonstrate that:

- sanitation is lagging well behind water
- aggregate regional figures mask extremely uneven progress across the region
- that there is significant need for expanded activity in several countries.

A snapshot of the region drawing on disaggregated data in the 2008 Joint Monitoring Program (JMP) Report and on a recent WHO/SOPAC report on the Pacific is shown in Table 1[4].

Stark rural–urban disparities

In South-East Asia, 7 out of 10 people without access to improved sanitation and drinking water facilities live in rural areas. The disease burden and health costs are higher in rural areas. For example, in Indonesia and Vietnam, infant and child mortality rates are 75 per cent higher in rural areas, water-related infectious diseases are 53 per cent more prevalent, and child malnutrition rates are 22 per cent higher.

In the Pacific, improved drinking-water coverage in rural areas is barely half that in the urban areas. However, the number of un-served people in urban areas is also rising, as is the threat posed by open defecation and unsafe excreta disposal in densely populated urban settlements. Therefore, urgent actions are needed in both rural and urban areas.

	SOUTH EAST ASIA	PACIFIC
SANITATION	The South-East Asian region as a whole is **on-track** to meet the sanitation MDG target. In 2006, 378 million people (67%) had access to improved sanitation facilities, and the population without access has decreased by 32 million since 1990. However, when the sanitation MDG is met, 157 million South-East Asians will still be without sanitation. The majority of the un-serviced people will be from the poorest and most vulnerable groups. Progress is uneven and many countries in the region are not on-track. Coverage is 52% or below in Indonesia, East Timor, Laos and Cambodia. In addition, one in five people (102 million people) continue to practise open defecation.	The Pacific Islands are **not on track** to meet the MDG sanitation target and achieving this will require an effort nearly five times higher than in the 1990–2006 period. In this region the number of people served with sanitation increased from 2.9 million in 1990 to 4 million in 2006. However, coverage is only 48%, and population growth means that the un-served have increased by 30%, from 3 million in 1990 to 4.3 million in 2006. Progress is uneven. Some less populous countries have already achieved universal access for water and sanitation, while nearly 40% of countries have coverage of improved sanitation below 50%.
WATER	Universal access to improved drinking water in South-East Asia is possible. Currently, 86% of the population in South-East Asia uses an improved source of drinking water. The region **almost met its MDG target for water in 2006**, nine years ahead of 2015, and 11 of the countries in the region have already met this target. The JMP figures on access to improved sources do not reflect the fact that the quality of service, especially in growing peri-urban settlements in poor cities, is of very low quality, both in terms of reliability and water safety.	The Pacific is **not on-track** to meet the MDG target for water and, as in sanitation, will require an annual level of effort over five times higher than achieved between 1990 and 2006 in order to reach the target. In the Pacific, 46% of the population has access to an improved water supply of which 13% has access to a piped supply. Access to piped water has almost stagnated, with only 300,000 people gaining access to this service since 1990, against population growth of 2.5 million over the same period. Uneven coverage is also an issue. Papua New Guinea, which contains over three quarters of the region's population, has only 40% improved drinking-water coverage.

Table 1: Summary of water access and needs in the South-East Asia – Pacific region

> “...governments and donors need to use their funding more creatively in order to trigger and support household investments”

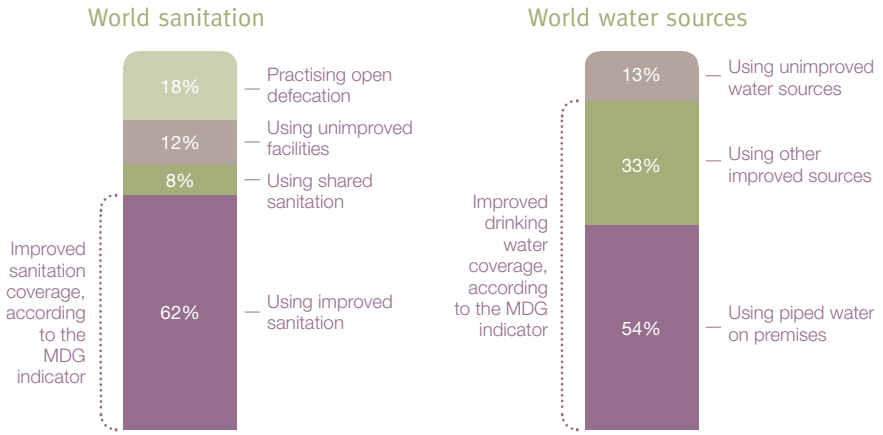

Figure 1: Sanitation practices

The ladder sheds light on the particular sanitation challenges facing a country. For example, many people in East Asia use unimproved sanitation, so the challenge for this segment of the population is to upgrade facilities. In contrast, one in five people in South East Asia (102 million people) continue to practise open defecation, suggesting that the challenge here is to change sanitation behaviour toward using basic sanitation facilities.

More insightful data to help tailor responses

The new sanitation ladder analysis in the JMP 2008[3] update breaks down aggregate coverage figures into the four main sanitation technologies employed by segments of the population (See Figure 1).

Why are some countries making better progress?

One of the key challenges for the region is to turn off-track countries and subregions back on-track. Experience shows that resources are not the only constraint for sanitation development: poor countries can and do outpace richer countries in terms of MDG achievements. What matters most is prioritisation, as policy, funding and action all follow. On-track countries are characterised by:

- clear prioritisation of sanitation in national development frameworks
- a demand-based sanitation policy implemented through agreed strategies
- application of policy-based financing strategies
- specific approaches to the provision of sanitation services for the poor
- increased participation of users, civil society and the private sector

(Almud Weitz, Water and Sanitation Program—East Asia and the Pacific).

Are external investments well targeted?

Recent data shows that most expenditure in the sector is by households and the private sector, with only a small proportion of expenditure financed by external aid or government (Clarissa Brocklehurst, Chief of Water and Environmental Sanitation Section, UNICEF). The financial needs are far too high to meet through public finance and aid flows, so governments and donors need to use their funding more creatively in order to trigger and support household investments.

This data also highlights the limited external aid going to the countries that need it most —the poorest and most off-track countries. Furthermore, aid is being used to give incrementally better services to the already served, despite other systems falling out of service. The focus on long-term sustainability, supporting operations, and maintenance and renewal is insufficient, and as a result, the number of un-served in some regions is increasing.

WASH AND OTHER MILLENNIUM DEVELOPMENT GOALS

WASH is increasingly accepted as critical to achieving other Millennium Development Goals (MDGs). Discussions at the conference highlighted that stronger inter-sectoral links are important to ensure WASH actively contributes towards the achievement of other MDGs. Perhaps counter-intuitively, WASH may also compete with other MDGs if a more holistic approach to development planning and implementation is not taken.

Contributions to other MDG goals could also be enhanced by stronger focus on cross-cutting issues, such as gender equity. Improved water and sanitation facilities, and hygiene promotion in schools can lead to greater school attendance by girls (MDG Goal 2 for universal primary education), with subsequent gains in women's empowerment (MDG Goal 3 for gender equality and empowering women).

Significant challenges are associated with engaging and supporting women in decision making where this is not the cultural norm. This requires substantial gender training and skill development among WASH practitioners (Jocelyn Loughman, World Vision Vanuatu). Further analysis, program emphasis and actions are needed for advances in water and sanitation coverage to translate more effectively to gender equality and women's empowerment. While not discussed directly at the conference, the minimal presence of women in government agencies and programs (e.g. public works, environment, water and sanitation engineering) is another barrier to maximising gender equality outcomes.

Another area of potential contribution is the use of nutrients from human waste for fertiliser. This can assist with food security and poverty (MDG Goal 1) (Dr Gijzen, Director UNESCO Jakarta). The International Fund for Agricultural Development is currently investigating improvements to food security for poor smallholder farmers through recycling and use of waste products in agriculture[5]. However, significant shifts in beliefs, habits and policies will be required before some cultures are convinced that this is a safe and acceptable practice.

Potential undermining of other MDG goals

Using approaches that ignore the negative effects of untreated wastes to provide access to clean water and sanitation—particularly in urban or more densely populated areas—will adversely affect MDG Goal 7 to ensure environmental sustainability. This will also affect other goals such as child mortality (MDG Goal 4) and disease control (MDG Goal 6) (Hubert Gijzen Director, UNESCO, Jakarta).

The use of water to transport human waste is a critical issue as it results in a huge quantity of sewage and wastewater that contaminates water bodies, resulting in both health and environmental issues. Evidence of this effect is already obvious in the Pacific Islands with contaminated shallow ground water tables (e.g. Tuvalu) and in Indonesia, where densely populated islands such as Java now have heavily contaminated water bodies. This issue is discussed further under Section 5.8 on sustainability.

05 STRATEGIES TO ADDRESS THE CHALLENGES

The following sections provide more detail on the 10 strategies outlined in the Conference Statement. In particular, explanation is provided as to why such actions were deemed a priority, and how they might be best achieved.

5.1 BUILD NATIONAL POLITICAL LEADERSHIP THROUGH EVIDENCE-BASED ADVOCACY

The need for greater political support for WASH has been raised repeatedly over past decades, since this leads to prioritisation, policy and action. More recently, the effectiveness of providing compelling evidence of the need for action to potential political champions has become more obvious. Sanitation is a 'harder sell' than water, and often a taboo subject (Bob McMullan, MP, Parliamentary Secretary for International Development Assistance). Yet evidence is emerging to provide robust arguments for why sanitation, along with water, should be given attention at national, subnational and community levels.

What evidence base is needed to make the argument?

Depending on the target audience and local priorities, two main bodies of evidence—economic and health—are useful.

The economic argument is a powerful one for high-level policy makers. In Cambodia, economic evidence about the costs of inadequate sanitation persuaded the Minister for Finance to support higher investment in WASH and take a lead role in encouraging support by others (Almud Weitz, WSP). An increasing number of economic impact and cost studies help make this case. The World Bank Water and Sanitation Program's (WSP) Economics of Sanitation Initiative (ESI) built on existing research to examine the major health, water, environmental, tourism and other welfare impacts associated with poor sanitation, and the potential gains from improved sanitation, in Cambodia, Indonesia, the Philippines and Vietnam[6]. The key findings were that the four countries lose approximately US$9 billion per year due to poor sanitation.

The link between access to water and sanitation, and improved health has been detailed in several reports in recent years, including new reports released during IYS, which confirm that poor sanitation is one of the biggest contributors to child mortality and morbidity[7]. Many speakers mentioned the enormous number of preventable cases of diarrheal and water-borne disease in the region. In Indonesia, the Ministry for Health has taken strong leadership in the rural sanitation sector, convinced of the potential health improvements (and financial savings) through preventive health interventions that improve both access to services and hygiene behaviour (Almud Weitz, WSP).

Additional arguments for WASH relate to education (particularly the increasing and continued attendance of girls) and women's empowerment. Another argument, particularly for sanitation, is to view the problem differently. Instead of seeing the problem as a question of removing undesirable waste, it could be seen as a question of managing a potentially beneficial resource in the form of nutrients, and overcoming large-scale environmental and public health issues (Dr. Hubert Gijzen, UNESCO). Nutrient re-use is currently an area of innovation and debate and there remain significant behavioural challenges; however, the evidence base in its support is increasing[8].

Lack of data can be a key barrier

Two specific areas were mentioned at the conference as lacking sufficient data: Pacific Islands and urban slums. The lack of data prevents the development of a case and leads to weak political support.

While some data is available for the Pacific, a shortage of nationally representative household surveys hampers efforts to track global progress and benchmark countries in the region against their neighbours. As mentioned earlier, achieving the sanitation target in the Pacific will require an effort nearly five times higher than in the 1990–2006 period.

The other blind spot in the JMP data is urban slums. Urban populations are increasing rapidly—forecasts suggest that 56.5 per cent of the South East Asia population will live in urban areas by 2020—with two in five urban dwellers living in slums, and increasing numbers found in small towns (Bert Diphoorn, UN-Habitat). Very few nationally representative household surveys disaggregate data within urban centres. This conceals the significantly lower access and quality of services found in informal and slum settlements. Increased understanding of the range of intra-urban needs poses an important challenge. More disaggregated data is needed to make the case for different approaches and greater resources to tackle the complex problems found in slums, including issues of land tenure.

5.2 DEVELOP NATIONAL STRATEGIES TAILORED TO LOCAL PRIORITIES

Once political leadership is strong, the next stage is to establish national policies and strategies for sanitation and water that assist in coherent sector action and clarify roles and responsibilities. Section 4 on the status of WASH in this report shows the diversity in this region and the different levels of progress towards the MDGs. This means that strategies must be tailored to suit local contexts and priorities, incorporating differentiated approaches to local sanitation and water-supply challenges. Each country needs to identify the key challenges it faces, the critical target groups, and the most appropriate ways to improve and scale up the programs needed to reach these different groups. The recipe for success will be different in each country; the role of sector stakeholders is to build sufficient capacity and resources in each country, and ensure that strategies are firmly rooted in the national context.

What should a national strategy look like?

Strategies need to address five levels:

1. Increase service delivery to citizens, with a focus on gender and underserved populations.
2. Improve institutions and accountability, and provide capacity support to decentralised levels of local governments.
3. Strengthen regulatory, institutional and financial environments.
4. Strengthen country-level monitoring to track not only water, but sanitation and hygiene, and impacts on the poor.
5. Support donor harmony and increasing partnerships among stakeholders (Jaehyang So, Global Manager, WSP).

Ethiopia provides a successful example of this approach. Rapid progress has been made since the Ministry of Health adopted hygiene and sanitation promotion as a national priority, and developed a decentralised, multi-stakeholder, demand-focused approach and distinct programs for water, and sanitation and hygiene. Increased donor financing has followed the strategy (< US$20 million in 2000 to > US$120 million in 2006) and sanitation coverage has increased to 54 per cent (from only 7 per cent in 1990).

> “Rapid progress has been made since the Ministry of Health adopted hygiene and sanitation promotion as a national priority, and developed a decentralised, multi-stakeholder, demand-focused approach and distinct programs for water, and sanitation and hygiene.”

Achieving stakeholder buy-in

Strategies need to take into account consumer preferences and needs and, therefore, may require significant stakeholder engagement and consultation. Governments and donors need to pay careful attention to developing and communicating new strategies as otherwise reforms may fail due to lack of consumer and political support (Jaehyang So, Global Manager, WSP). Successful strategies are consistently implemented over the long term (e.g. Water Supply and Sanitation Policy Formulation and Action Planning—WASPOLA—Indonesia, see the case study on page 13) and are most effective when they can be implemented in an incremental and phase-wise manner.

Increasing the evidence base for policy making and national strategies

It was evident at the conference that each country is at a different stage in its policy development. Some countries (e.g. Indonesia) were promoting current best practice approaches. Others remained focused on prescriptive, potentially outdated approaches, which have been found to be unsuccessful in other countries. There were no cases of clear integration of sustainable development approaches with water and sanitation policy as yet[9]. Building and sharing the evidence base is therefore an important aspect of increasing progress in the region. Opportunities to share and debate on best practice—such as this conference—are essential for this purpose. A recurring theme during this conference was the need for more rigorous and regular capture and reporting of evidence, and closer coordination of research and practice.

To overcome the lack of cost data of programs, an increasing number of formal studies can inform policy development (Jaehyang So, Global Manager, WSP). For example, WSP is conducting a sanitation financing study, based on cost data collected from six case studies of onsite sanitation solutions in rural and peri-urban areas[10]. In addition, the International Water and Sanitation Centre (IRC) WASHCost action research project, which commenced in 2008, is a five-year project to involve stakeholders in the collection and analysis of detailed data on water and sanitation costs. This project also promises to support the use of this information in improved planning and governance of WASH services[11]. Finally, Plan International is currently evaluating the cost-efficiency of water and environmental sanitation (WES) interventions across its 49 country programs. This information will be used to compare its WES program costs against those of other agencies, and improve Plan International's policies, practices, expenditure tracking, cost-efficiency, and program outcomes[12].

5.3 DO SANITATION DIFFERENTLY

One of the key themes of the conference—the need for a step change in order to generate dramatically improved outcomes—was reflected in the discussions around sanitation and hygiene. Most important was the use of 'software' (demand creation, hygiene promotion, and other behaviour change strategies) in all interventions, to realise the intended benefits (Barry Jackson, WSSCC). Beyond that, a range of experiences with different implementation approaches were presented, including participatory hygiene and sanitation transformation (PHAST) and community-led total sanitation (CLTS)[13], as well as a range of national policy options. The outcomes and recommended actions based on the conference sessions in this area are captured below.

Building and sharing the evidence base on effective approaches

More information is needed about effective approaches to sanitation development and hygiene promotion in both urban and rural areas. Countries also need significantly more advocacy and knowledge management activities so that national policy makers, local government decision makers, program implementers, and service users are aware of the massive costs of inaction, and of the relative benefits and practicality of the various solutions. One of the side effects of the long-term neglect of the sanitation and hygiene subsector is a limited evidence base. Without reliable data from regular monitoring, rigorous impact evaluation, and routine program research, it is difficult to ascertain the relative sustainability, equity and cost-effectiveness of sanitation or hygiene interventions.

Weak evidence causes policy incoherence

The weak evidence base is reflected in the lack of consensus on sanitation and hygiene policy found among key stakeholders in many developing countries (Barry Jackson, WSSCC), including those present at the conference. Without reliable evidence, the policy debate becomes fractured and ideological, reducing the chances of policy alignment. It is also hard for citizens and other sector stakeholders to hold governments and implementing agencies accountable for their actions. In addition, where sanitation stakeholders use radically different approaches and subsidy policies in the same area, communities are reluctant to entertain low subsidy approaches, however convincing the evidence of their effectiveness[14].

Evidence of the ineffectiveness of subsidy approaches is increasing. A rapid assessment of the World Bank – supported Second Water and Sanitation for Low-Income Communities (WSLIC-2) project in Indonesia[15] found that US$2.1 million invested in revolving funds for household sanitation had financed 23,560 loans in 860 communities. The sanitation loans were distributed by the community management body, but very few (less than 1 per cent) of the loans had been repaid, and access to sanitation was almost zero among the 30–70 per cent of the community classed as poor households[16]. Following the 2005 assessment, the WSLIC-2 project dropped the revolving funds approach and adopted the community-led total sanitation approach in all of its project districts.

Lao People's Democratic Republic and Indonesia exhibit policy changes towards no-subsidy approaches based on this type of evidence, and the Global Sanitation Fund

intends to use demand-led, no-subsidy approaches (Barry Jackson, WSSCC). By contrast, in the Solomon Islands, government policy recommends the use of a pour-flush latrine where water is available (Robinson Fugui, Ministry of Health). This policy mirrors the engineering-based guidelines followed by many developing countries, but global experience demonstrates that few poor households are likely to finance pour-flush latrines without substantial subsidies (or other incentives). The use of minimum technical standards based on developed country models often sets the bar too high, preventing people from making the important behaviour change that represents the first step on the sanitation ladder—stopping open defecation—and constraining the development of more appropriate local products, services and innovations.

Indonesia: an example of evidence informing sanitation policy

The Water Supply and Sanitation Policy Formulation and Action Planning (WASPOLA) project in Indonesia demonstrates a paradigm shift in national policy for rural areas. WASPOLA assisted in demand-responsive approaches, a stronger focus on hygiene behaviour, and more pro-poor interventions. These changes encouraged the Ministry of Health to introduce community-led total sanitation (CLTS) in Indonesia. When the successful expansion of the CLTS approach was evident, the Ministry of Health endorsed a national total sanitation policy that prohibits hardware subsidies for household latrines, and formalises the goal of open defecation – free communities. (Budi Hidayat, Director for Settlement and Housing, National Planning Agency).

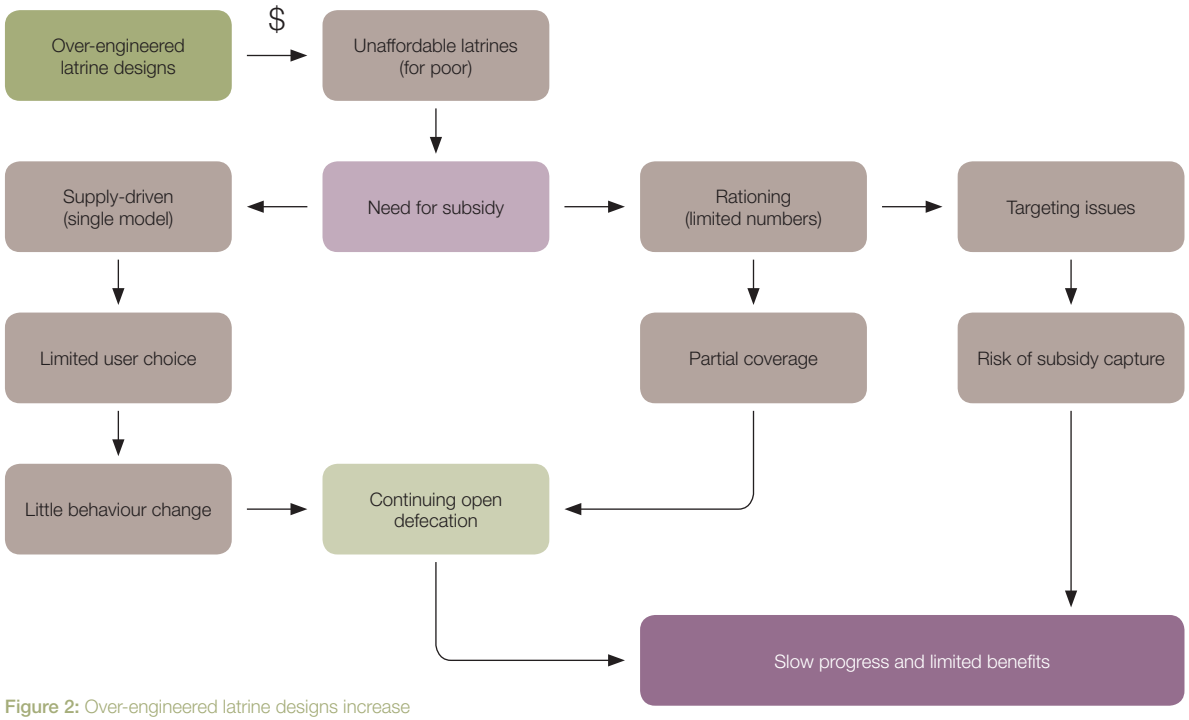

Figure 2: Over-engineered latrine designs increase the unit cost of sanitation facilities, thus run the risk of rationing, targeting issues, partial coverage, and continuing open defecation (Andy Robinson)

Increasing the evidence base for total sanitation approaches

Several conference participants questioned the evidence base for the sustainability and effectiveness of CLTS, which was first implemented in Bangladesh only eight years ago. However, the Water and Sanitation Program (WSP) undertook a detailed assessment of total sanitation approaches in South Asia in 2005[17]; and a number of rigorous evaluations and research studies are currently underway.

A number of economic impact and cost studies are also underway. The second phase of WSP's Economics of Impact Study (WSI), due to conclude in mid-2009, involves primary data collection to generate credible evidence on the cost-benefit ratios and cost-effectiveness of a range of sanitation interventions in different contexts across South-East Asia.

Incentives for collective sanitation outcomes

The public nature of sanitation means that collective sanitation outcomes have been found to generate far greater public health and economic gains than partial sanitation outcomes in both rural and urban settings. Therefore, there is a strong argument for promoting sanitation interventions that aim for collective outcomes, for example at the community level, and for using public finance to encourage and reward stakeholders and communities that achieve collective sanitation outcomes. In rural areas, aiming for community-wide (or local government – wide) sanitation outcomes ensures that interventions are inclusive, resulting in improved equity (Andy Robinson, sanitation specialist). Where community members lead the actions and processes that achieve these collective sanitation outcomes, the process also empowers the community and encourages its members to tackle further development challenges.

Several outcome-based incentive systems are already operating in South Asia, including:

- community cash awards by central government
- clean village competitions financed by the state or province governments
- project incentives (e.g. allocation of new schemes) provided by districts and programs.

The successful systems reward collective outcomes through multiple incentives provided by different tiers of government. Each uses verification systems that reinforce the promotion and monitoring of the collective outcomes.

Incentives for innovation have also been found to be effective. For example, the Cambodian Department of Rural Health Care sponsors an annual latrine competition, rewarding the most innovative and cost-effective latrine design in each district with the district winners competing for a national prize. The winning designs are then added to annually updated latrine catalogues, which showcase innovative, low-cost latrine designs, and are used in sanitation promotion activities to spread ideas and innovations from around the country to a wider audience.

Evolving approaches to behaviour change

Recent CLTS experiences in Cambodia, Indonesia and East Timor suggest that rapid and widespread behaviour change, and demand for household sanitation, can be triggered by the disgust associated with excreta (Andy Robinson, independent consultant). This new approach complements existing approaches to sanitation behaviour change, which tend to promote more sympathetic messages on health improvement, prestige, comfort and cleanliness. The key difference is that the disgust trigger appears effective on all segments of society, even the poorest and most disadvantaged, whereas previous behaviour change triggers have had little impact on these hard-to-reach groups (perhaps because comfort and prestige appear something of a luxury to someone engaged in a daily struggle to feed their family). Where individuals and communities involved are genuinely convinced of the necessity of stopping open defecation, this belief greatly enhances the chances of sustainability. Questions remain over the sustainability of this behaviour change, the durability of the low-cost sanitation facilities, and the best mechanism for long-term institutional support to the development process. However, the ongoing evaluation studies should soon provide some answers.

Participatory hygiene and sanitation transformation (PHAST) is another community development method that, when done well, can bring about positive changes in hygiene and sanitation practices and community development outcomes (Jocelyn Loughman, World Vision Vanuatu and Joel Kolam, Department of Health, PNG). However, experiences in Africa, where PHAST has been used for more than 15 years, suggest that PHAST is rarely a cost-effective method of changing hygiene behaviour[18]. A WSP-supported study in Uganda found that PHAST interventions cost US$16–24 per beneficiary (US$80–120 per household)[19], and several other assessments have confirmed the limited effectiveness of PHAST at scale[20].

Phased approaches to hygiene behaviour change

Phased approaches encourage the communication of simple hygiene promotion messages that focus on one behaviour change at a time. The critical hygiene messages relate to the two primary barriers to faecal–oral contamination: hand-washing after defecation, and safe excreta disposal (including infant excreta) (Andy Robinson, independent consultant). Translating methods like PHAST into a more structured process of change, which breaks the core elements down into individual steps, may be one way to achieve this. Equally, a simple focus on handwashing appears to be effective. A number of organisations present at the conference (WSP, WaterAid, and UNICEF) are currently involved in national handwashing campaigns using this approach, and WSP is assessing the most effective approaches to triggering, scaling up and sustaining handwashing with soap in a number of countries, including Vietnam. There is also a need for broader mass media and direct communication strategies that popularise the issue—for example, through songs for children (Peter Feldman, Plan International).

Phased approaches to sanitation

Interventions that use local technologies to move households and communities gradually up the sanitation ladder help communities to improve and maintain their services (Almud Weitz, WSP-EAP). Stopping open defecation and starting 'fixed-point' defecation (even if it is only a hole in the ground that is covered afterwards) are on the bottom rung. Homemade latrines built from locally available, no-cost or low-cost materials come next. From here the ladder moves to pit latrines with easy-to-clean slabs; and upward to pour-flush latrines, flush latrines with septic tanks, sewer systems, and environmental sanitation (solid waste management, drainage and wastewater treatment)[21].

The sanitation ladder concept implies that interventions should not aim to reach the top rung in one step—it is too difficult and too expensive, which means that too few households can be reached in this way. An alternative phased approach starts the behaviour change in as many households and communities as possible, and then uses the substantial demand created by this raised awareness to build sustainable sanitation supply chains and develop local markets for sanitation goods and services (Andy Robinson, independent consultant).

> The sanitation ladder concept implies that interventions should not aim to reach the top rung in one step – it is too difficult and too expensive, which means that too few households can be reached that way.

Dealing with urban sanitation challenges

The sanitation challenge is more complex in densely populated and inadequately drained urban settlements due to:

- rapidly growing populations and expanding slum area
- the huge investments required
- the significant intra-urban variations in conditions and preferences
- the complex interplay between solid waste, drainage and wastewater (Bert Diphoorn UN-Habitat).

Efforts to find sanitation solutions for small pockets of urban poor have little impact on wider city challenges. Therefore, 'poor-inclusive' approaches, which tackle systemic and institutional issues at national and local level in service provision and ensure that mechanisms to serve the poor are incorporated, are increasingly recommended (Almud Weitz, WSP). Urban sanitation interventions should work towards sustainable technical solutions that are locally affordable and culturally acceptable. They should be incremental in their approach, breaking down the large, long-term changes required into manageable pieces that fit with local planning and budget cycles. As in rural areas, socially focused 'software' activities are critical to the sustainability and effectiveness of hardware investments, particularly awareness-raising campaigns that improve political support, willingness to pay for services, and sustained behavioural improvements.

Using approaches tailored to local contexts, preferences and needs

Interventions and methods need to:

- value local cultures and beliefs
- allow for local skills and strengths
- factor in user preferences and needs
- improve equity by ensuring the full participation of women, children, disabled, disadvantaged and excluded groups in the planning, implementation and management of water and sanitation services.

As such, even in large-scale interventions, flexibility and innovation need to be maintained so that households and communities are able to tackle their sanitation problems using local materials. They need to be able to do this according to their own preferences and beliefs, without imposing external concepts of standard designs or minimum technical requirements.

Specific examples were given of:

- the cultural taboos around sanitation in the Pacific Islands, which make people unwilling to discuss sanitation and hygiene issues (Late Kupa, Pacific Water Association)
- the need for sanitation interventions to provide user choice or ensure genuine participation by women (Jocelyn Loughman, World Vision Vanuatu)
- severe water and sanitation challenges faced by urban slum dwellers, which are often overlooked by large infrastructure projects (Bert Diphoorn, UN Habitat)
- the incredible diversity of ethnic groups, cultures and languages in Lao People's Democratic Republic (Dr Nouanta Maniphousay, Lao Ministry of Health), which mean that hygiene promotion designed centrally is ineffectual for remote, rural communities with little access to mass media channels and low levels of literacy.

The need for separate sanitation and water programs and policies

Sanitation and hygiene improvement are rarely given the same priority as water supply development (Bob McMullan, MP, Secretary for International Development Assistance). Sanitation improvement requires detailed national and local policies in order to tackle the complexity and severity of the challenge; unfortunately, the skills and capacities found in water supply institutions are rarely suitable for the behaviour change and household-focused activities involved in the promotion of improved sanitation and hygiene. Separate sanitation policies, programs, and budget lines need to be established, as there is mounting evidence that this separation increases accountability and performance within the subsector, which in turn leads to greater investment and support.

While conference participants supported the need for separate sanitation approaches, policies and strategies, there was concern that both macro and micro-planning of sanitation and hygiene services must feed into the wider frameworks of integrated water resource and environmental planning, and that the important synergies and interrelationships between water supply and sanitation should not be overlooked.

Ecological sanitation and the need for greater focus on water scarcity

A question was raised about ecological sanitation and whether it will become more important in view of rising fertiliser costs and increasing contamination of ground and surface waters by nutrients. The eco-san approach is appropriate when introduced carefully and used properly, with reference to the need to move up the sanitation ladder slowly (Peter Feldman, Regional WES adviser for Asia, Plan International). Eco-sanitation or dry sanitation systems need the right care and management, to ensure that the products are sanitised. Therefore, these are only appropriate in a context of broadly improved sanitation behaviour. Plan International recently found that double-vault composting latrines in Vietnam were being emptied after only a couple of months, raising concerns about the adverse effects of the handling and use of the pathogen-rich by-products. Another challenge for eco-sanitation approaches is to avoid being too supply driven, as adoption and demand creation require sustainable changes in the ways consumers think and behave.

In addition, the increasing likelihood of global water and energy stress suggests that we need more water and energy-efficient approaches to sanitation development, particularly in urban areas where high water-flush sanitation systems often consume and contaminate already limited resources. Development practitioners should avoid repeating the mistakes of the developed world, including the unnecessary overuse of increasingly scarce and precious resources such as water (Tom Mollenkopf, CEO, Australian Water Association).

5.4 USE PUBLIC SECTOR AND DONOR FINANCE TO LEVERAGE AND SUPPORT INVESTMENT BY OTHER STAKEHOLDERS

Sector finance assessments confirm that government and donor funds provide only a fraction of rural water supply and sanitation investments. A recent study led by the World Health Organisation (WHO) and the Global Annual Assessment of Sanitation and Drinking-Water (GLAAS) suggests that government and donor finance accounts for less than a third of rural water supply investments[22] (see Figure 3). The remaining two-thirds of rural water supply investment are thought to come from either self-provision by households, user fees, or investments by entrepreneurs.

A review of rural sanitation in Cambodia[23] examined the number of sanitation facilities built by public and donor programs over a six-year period, and compared this to the increase in the number of sanitation facilities reported by nationally representative household surveys. Between 1998 and 2004, household surveys report that the national stock of latrines in Cambodia increased by about 130,000; whereas their *2005 Sector Investment Plan* estimated that just 21,200 latrines had been built through sanitation interventions during the same period. This suggests that public and donor finance provided only 16 per cent of the new sanitation facilities, and given that many of the subsidised program latrines built during this period were subsequently abandoned, the true proportion financed by the government and its donors is probably lower still.

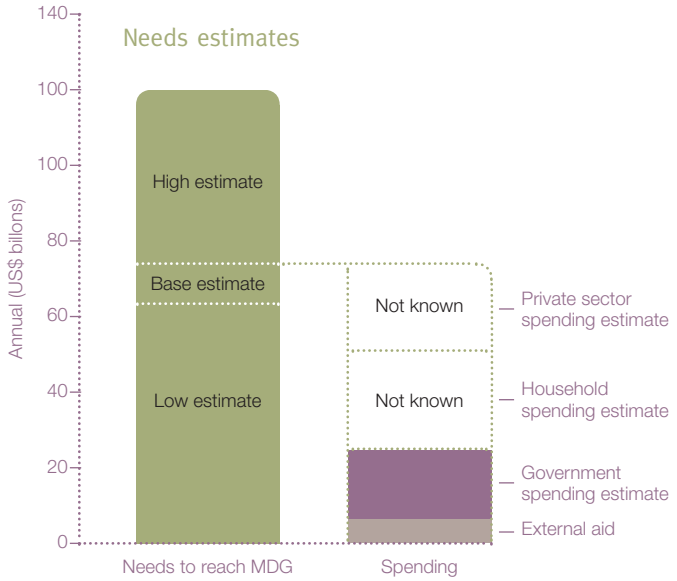

Figure 3: Annual needs estimates for sanitation and drinking water

Sanitation and hygiene marketing to attract private finance

A marketing approach can attract private finance for sanitation and hygiene improvement initiatives. Public and private sectors have an interest in promoting handwashing with soap, and so national handwashing programs usually take the form of public–private partnerships. While the public sector can be wary of private industry, and vice versa, both sectors stand to gain from this cooperation. Private industry stands to gain from both market expansion and high-profile contributions to national social development goals, while the public sector gains access to the unrivalled understanding of consumers held by industry.

Well-designed sanitation and hygiene programs allow for market segmentation. They can use consumer and market research to identify the different approaches, products and services needed to improve sanitation and hygiene behaviour among the diverse groups and populations targeted by the interventions. The marketing approach relies on media campaigns, local promotional efforts, and direct marketing by suppliers (masons, retailers, manufacturers) to reach consumers and persuade them to buy and use a product or service. The key principle is of voluntary exchange between a consumer and a private supplier. However, public channels, such as government extension workers and community volunteers, are involved in the process, notably in local promotional activities. (See case study on Philippines.)

Philippines reaps the benefits of low-cost water and sanitation technologies

In Philippines, low-cost water and sanitation technologies are promoted by the Philippine Center for Water and Sanitation Centre (Lyn Capistrano, PCWS). These technologies include ferro-cement rainwater harvesting tanks, biogas digesters for sanitation and clean renewable energy, spring water system, wastewater treatment facility, iron removal filters and slow sand filters. Although building such technologies may be labour intensive and potentially less convenient than more expensive technologies, their use brings the following benefits:

- They contribute to community empowerment and build confidence as communities are providing for themselves.
- They allow for innovation, analysis and collective learning.
- They are affordable to build, replicate, maintain and improve upon.
- Their costs are so low that opportunities for graft and corruption are small.
- They enhance social capital and reduce the need to depend on politicians for funds.
- Strengthen the rights of poor households to water and sanitation.

This data confirms that much of the progress towards the sanitation and water MDGs starts in the private sector—either through self-provision by households, goods and services provided by local markets (masons, mechanics, water haulers, latrine pit diggers, latrine pan producers, sanitary ware retailers, pump and pipe retailers), or through services provided by local entrepreneurs and local companies (piped water supply connections, septic tank emptying, small water and sewerage utilities, bottled drinking water, and tanker water supplies).

In order to meet the sanitation and water MDGs by 2015, the JMP data reveals that:

- millions of improved sanitation facilities need to be built every year
- 35,000 boreholes per year need to be drilled in sub-Saharan Africa alone (Clarissa Brocklehurst)
- millions of slum dwellers will need access to improved urban services (Bert Diphoorn, UN-Habitat).

Given the scale of this challenge, and increasing evidence that public and donor funds play a relatively small role in sector finance, it seems clear that we need to find ways to trigger and support increased household and private sector investments.

This means examining alternative management models, encouraging innovative approaches and new technologies, and re-assessing how we do business. We also need to consider more radical, lower cost and more locally appropriate options (see case study on Philippines). In rural areas, these options would include household-managed facilities, privately managed services, conjunctive water use, lightweight pumps, manual drilling, household water treatment, CLTS, and sanitation marketing. In urban areas, these options would include public–private partnerships to finance handwashing promotion, utility partnerships, increased benchmarking, citizen report cards and multimedia campaigns.

In all areas, it means using public and donor finance to:

- provide incentives for collective outcomes
- enable, improve and expand the services provided by non-public stakeholders.

For example, in Vietnam a successful micro-credit approach has been taken to fund water and latrines through the Social Policy Bank. This scheme, which targets rural people, offers a low interest rate (subsidised by the state) for loans for these facilities and a repayment period of 60 months. There have been almost no defaults on repayments (Le Thieu Son, Ministry of Agriculture).

In addition, the shift to a more leveraged and supporting role will require closer attention to the regulatory policies and controls that protect consumers and encourage the private sector to provide high-quality, equitable services. Regulations were not closely dealt with in the conference, but they are a key focus area to support the large-scale change needed in the sector.

5.5 IMPROVE ACCOUNTABILITY AND LEADERSHIP FOR WATER SUPPLY, SANITATION, AND HYGIENE

The WASH sector suffers from overlaps between many government agencies, with areas such as Health, Public Works and Infrastructure, Environment, Water Resource Management and Education all having a stake and a necessary involvement. The resulting lack of leadership and clear delineation of responsibilities are key barriers to progress in the sector. Countries that are on-track to achieving their water and sanitation MDGs have clear leadership and national policies, which clearly allocate roles and responsibilities within the sector (Almud Weitz, WSP).

In Vietnam roles and responsibilities for rural water supply are well defined and closely coordinated with relevant sectors, particularly agriculture, health, and education and training (Le Thieu Son, Ministry of Agriculture). In Indonesia, responsibility for rural sanitation rests with Ministry of Health, while urban water and sanitation lies with the Ministry of Public Works. At the national level, a sector coordination group administered by the planning agency, Bappenas, collaborates with a Sanitation Working Group. Such structures are important in achieving good coordination within the sector, and require ongoing support.

One approach to sector coordination discussed at the conference was the sector-wide approach (SWAP). In the context of East Timor (which is primarily rural) it is applied as a comprehensive approach involving all stakeholders in the development of a country-led program (Chris Dureau, independent consultant). Core features of such an approach are reaching agreement on a common plan and mobilising resources to achieve that plan. This approach seeks ownership by, and alignment between, the government, donors and communities, with each playing a particular role in the common plan. It involves multiple ministries (for example Health, Infrastructure, Agriculture, Local Government, Rural Development, State Administration, and Finance and Planning) that must work collaboratively.

The main challenges of developing a SWAP in the context of rural East Timor are relinquishing top-down control and moving towards autonomous local models of government–community collaboration, while maintaining the substantial financial and political motivation to get the project up and running (Chris Dureau). A common challenge is that values and rights are not sufficiently embedded in the approach (e.g. the approach is not gender or poor inclusive) and there is often too much focus on what donors expect from higher levels of government.

Global experience—especially from Africa (Uganda, Tanzania)—indicates the strategic development of a one-sectoral approach, especially in the rural water supply sector, can significantly scale-up the fragmented quilt work of donor-driven projects and parallel government authorities (Piers Cross). SWAPs can:

- leverage up financial allocations significantly from the public sector (treasury and donors)
- improve the coordination and clarity of roles
- bring coherence to sectoral policy debates and help make institutions accountable for implementing policies
- establish a single strategic monitoring system.

SWAPs generally feature an annual joint sector review, which brings together all of the sector stakeholders, and enables the sector leadership to make strategic decisions based on consensual evidence, in order to improve sector efficiency and effectiveness.

5.6 STRENGTHEN CAPACITY COMMENSURATE WITH THE SCALE OF THIS CRISIS, ESPECIALLY IN SANITATION AND HYGIENE PROMOTION

Capacity is a well-acknowledged constraint to progress in the WASH sector. Large-scale, systematic approaches to capacity building are required (Peter Feldman, Plan International) to increase people's knowledge, skills and experiences (Tony Kelly, CEO of Yarra Valley Water). In addition, the actual number of water and sanitation professionals and workers that will be required is significant. Some key methods of capacity building include support for local educational institutions, networking and conferences to enhance the knowledge of leaders, managers, planners, engineers, hygiene educators and others.

Critical gaps in capacity

Critical gaps in capacity were identified in many areas, including:

- local government
- health promotion and behavioural change
- technical capacity amongst government and all organisation types, and
- appropriately trained and motivated technical staff in utilities.

Each of these gaps is discussed below.

LOCAL GOVERNMENT

In the context of decentralisation, major gaps in capacity at the local government level constrain progress (Lyn Capistrano, Philippines Water and Sanitation Centre). The experience of the Water Supply and Sanitation Policy Formulation and Action Planning (WASPOLA) project in Indonesia demonstrated that long-term support in capacity development is needed to roll out its new policy (Budi Hidayat, Director, Bappenas Indonesia). In particular, we need to improve the capacity of the local government in the planning, implementation and monitoring of community-based water and sanitation services.

BEHAVIOURAL CHANGE FACILITATORS

Earlier sections of this report have discussed the sanitation crisis and the huge increases in coverage needed to meet the MDG targets for sanitation and beyond to universal access. The report has also presented new shifts in thinking about sanitation approaches and the central role of software for sustainable behaviour change. Experiences presented at the conference emphasised the need for high-quality facilitation in order for these approaches to succeed (Jocelyn Loughman,

World Vision Vanuatu). This highlights the importance of finding the right number of people, with the right skills in the right places to address this crisis.

TECHNICAL CAPACITY

Whether it be in utilities, governments or in NGOs, a huge number of additional skilled workers in water supply and sanitation infrastructure is required (6.5 million worldwide to meet the MDGs)[24]. A repeated concern through the conference was the lack of technical expertise to ensure ongoing operation and maintenance of facilities over the long term.

CAPACITY IN URBAN UTILITIES

In the urban sector, most Asian water utilities need help to lift their performance. The conference discussed the lack of capacity within service delivery organisations (Robert Hood, Lead Consultant, Water Operators' Partnerships Project). High non-revenue water and inadequate asset maintenance and replacement are common issues. Twinning is one possible mode of capacity building that needs commitment and process to work well. Currently, eight twinned Asian water utilities follow a process focused on:

- customer service
- non-revenue water reduction
- water quality and testing
- planning system
- management system
- metering system
- skills development.

This has resulted in increased staff productivity as well as resolution of common service issues. Increasingly, attention is being paid to programs in the region such as Waterlinks[25] and Pacific Water Association that use these approaches[26]. However, we need to strengthen the emphasis on serving the poor within such arrangements.

Increasing capacity sometimes requires a restructure of the ways in which services are managed. An approach is needed which seeks to reform public sector delivery where appropriate functions are outsourced to the private sector or learn from their approach to management systems (such as in Phnom Penh, Cambodia), whilst focusing public sector capacity to manage private sector contractors. Such approaches need both incentives and performance management to better leverage existing capacity.

Avoiding brain drain

Another significant capacity issue is the challenge of training, supporting and retaining competent professionals. This was reported as a challenge both within governments and in the non-government sector. Appropriate incentives, provision of professional development opportunities and greater attention to employee satisfaction are possible solutions.

Articulating the number of workers needed

The need for capacity building has long been a refrain in the sector. The challenge is to go beyond the rhetoric to a deeper analysis of the needs that will generate a commitment to longer term strategies for capacity building. The health and education sectors have begun putting figures on the numbers of new doctors and teachers required to meet targets. The water and sanitation sector is beginning to do the same—recent unofficial estimates calculate that 10.4 million additional sanitation, hygiene and water supply workers are needed to meet the MDG; of these, one million are needed in this region alone[27]. Government and donors in the region will need to take these estimates and prepare human resources development plans to meet the gap.

Monitoring and evaluating capacity development

Finally, capacity building needs to be better monitored and evaluated than it has been, with a focus on outcomes and impacts, rather than on outputs (number of people trained). Evaluations should tell us what the people and institutions who went through capacity programs went on to achieve. Going back to an earlier theme of this report, we need a better evidence base on which to judge the impact of capacity building to help make the case for more investment in this area.

> "Large-scale, systematic approaches to capacity building are required to increase people's knowledge, skills and experiences"

5.7 MAXIMISE THE POTENTIAL OF NGOS IN THE SECTOR

NGOs play an important role in the water supply, sanitation and hygiene (WASH) sector. According to a recent study, NGOs in the South East Asia – Pacific region have various strengths including community mobilisation and engagement, and servicing challenging or remote areas[28]. The study also identified the NGO sector's weaknesses, which include cases of lack of appropriate technical expertise and inadequate coordination with other sectors.

NGOs play a range of roles in the region including (Dr Juliet Willetts, Research Director, Institute for Sustainable Futures, UTS):

- facilitating service delivery—direct or as an intermediary
- providing advocacy and accountability – promoting the issue at all levels including community and policymakers, and ensuring transparent processes with appropriate oversight
- promoting community education—awareness-raising, including sanitation and hygiene promotion and marketing
- mobilising other actors (such as government agencies, private sector and communities)—raising demand, building partnerships and promoting networking
- capacity building for local governments, service providers, civil society groups and end users
- researching—piloting innovative, locally adapted approaches and technologies
- engaging in policy dialogue—bringing grounded perspectives to the table.

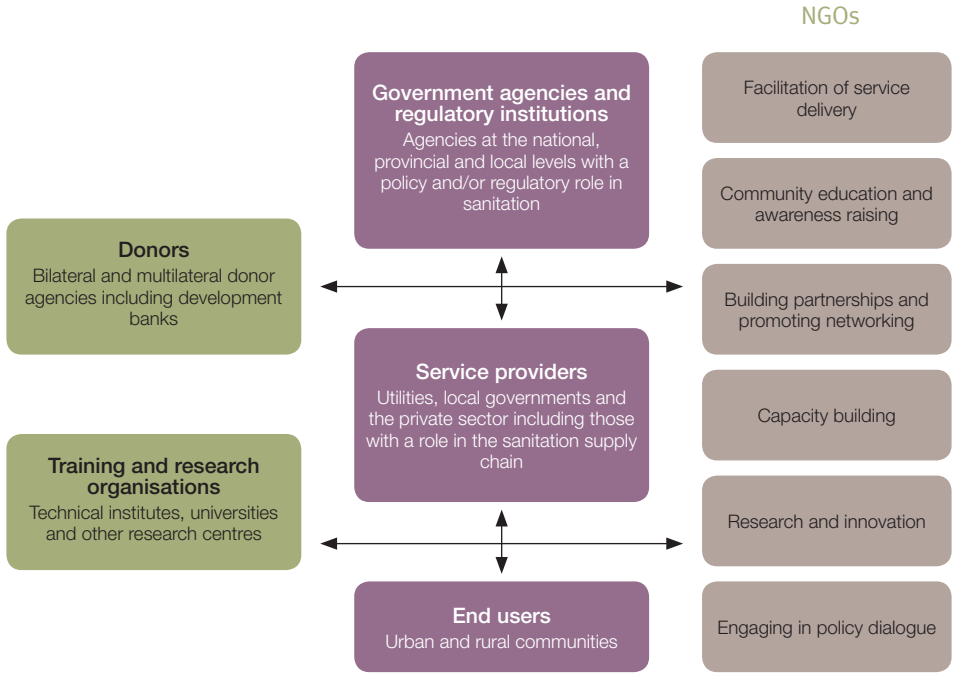

Figure 4: Interface of NGOs and other actors[29]

This wide variety of roles demonstrates that NGOs in this region are moving into new areas beyond their more traditional roles of advocacy and service delivery for the poor in difficult circumstances. Other organisations now have opportunities to engage more strongly with NGOs where they offer benefits, for instance in:

- behaviour change facilitation
- work at the community interface (in rural or urban settings)
- developing and trialling innovative approaches and the communication of these at higher policy levels.

To maximise the benefits of partnerships, NGOs need to provide greater focus on coordination and collaboration with others in the sector, and to look more closely at how to gather and share evidence about innovative approaches. This was a key point of discussion in the NGO caucus held at the conference. As one conference participant from the Pacific observed, there can be confusion when NGOs start to adopt the role of governments. Precautions about duplication of government duties were repeated during the conference.

Another focus area for NGOs is the cost-effectiveness of their approaches. Adopting larger-scale approaches will remain a severe challenge if cost is not considered (Andreas Ulrich, BORDA). Plan International is currently addressing this challenge with a large-scale study on the cost-effectiveness of their sanitation approaches.

5.8 PROMOTE ENTREPRENEURSHIP

There is significant dormant potential among entrepreneurs and the private sector to assist in providing access to services. In the late 1990s, it was hoped that major inflows of private sector cash would transform the scale of investment in the water sector—as happened in the telecommunications sector. However, these hopes were never realised. Many developing countries prefer to continue with public sector ownership of assets, despite recognisng that commercial principles of service management increase efficiency, effectiveness and sustainability. In many cases, the informal private sector already constitutes a significant part of the service provision chain, especially for the poor—most water and sanitation service improvements are undertaken by the user household through local market interactions (e.g. building toilets, installing water tanks, digging wells and improving household water quality). Enormous collective market potential is available through the poor, and we need ways to stimulate that market (Tim Costello, World Vision Australia). And in Vietnam a key lesson learnt is the essential role of private sector in all aspects of water and sanitation service delivery (investor, manager and supplier) for long-term sustainability (Le Thieu Son, Ministry of Agriculture).

The public and NGO sectors are rarely as good as the private sector at undertaking commercial activities or providing competitive services. This is in part because few public or NGO staff have the experience, contacts, incentives, or long-term engagement needed to understand and optimise their private sector transactions. As a result, the theoretical economies of scale inherent in large-scale programs are usually cancelled out by the cost of highly inefficient, temporary supply chains, and by supply-driven decisions about the products, services and pricings that programs provide.

Local private-sector, small-scale service providers and business support services need to play a greater role in service delivery. Private-sector approaches can improve the marketing of products and services, build local supply chains, and help informal small-scale providers to become viable businesses, for example through government and donor incentives, or regulatory reforms that acknowledge their role.

In addition, large or international private-sector players can also play a role. Partnerships with business can contribute to capacity building in operations and direct business activities as well as the utility of business–public partnerships for policy change (Alison Baker, GHD).

There are five key steps to enhancing WASH sector engagement with the private sector:

1. Increase evidence and recognition of the extent to which the sector is already reliant on private sector links.
2. Encourage and allow private providers that service the poor to operate more efficiently.
3. Introduce incentives and regulations to formalise and manage these private-sector interactions and transactions in the public interest.
4. Promote business service development associated with sector improvements.
5. Improve access to credit for small-scale water and sanitation businesses and local service providers.

The long-term objective of the sector should be to develop sustainable private supply of goods and services. For instance, once universal latrine coverage is reached, households should be able to buy and upgrade their sanitation facilities through local retailers and service providers, with local government responsible for monitoring environmental sanitation and public health standards.

With this long-term aim in mind, interventions must begin to invest in the development and extension of private supply chains. At present, most projects contract out the supply of components to large private contractors, who tend to make bulk purchases in central locations (or in other countries) and thus bypass local manufacturers, distributors and retailers. Donor practices often stifle rather than enable the private sector; donors need to review procurement systems and examine ways to encourage (rather than discourage) a vibrant private sector (Clarissa Brocklehurst, UNICEF). In addition, donors could consider more output-based aid—for example procuring completed water points rather than drilling rigs—as a way to stimulate the local private sector.

5.9 STRIVE FOR SUSTAINABILITY IN ALL OUR ACTIVITIES

Sustainability means two things when applied in the context of the WASH sector. Firstly, it is commonly understood to mean 'sustainability' beyond the life of a given project or program. Within this definition, the perennial challenge for WASH activities is about:

- long-term solutions for keeping up operations and maintaining infrastructure
- maintaining behaviour changes over the long term.

The second definition is environmental, social and economic sustainability, and the broader concept of sustainable development as living within the carrying capacity of the environment. Both areas are discussed in this section.

Resourcing and stronger monitoring of effective ongoing operation and maintenance are critical and have been a continual challenge in the sector over many decades. Committees in charge of community-managed systems are often not resourced, monitored or supported, and can suffer from political disturbances and power dynamics. The usual response to the call to achieve sustainability has been to encourage a sense of ownership through maintenance program activities. This remains a valid approach, particularly when ownership is increased through partner government systems. As far as monitoring equipment goes, sustainability is sometimes contrary to what might be expected. For example, a more durable pump (or other item) may not always be the best investment. A cheap, easily breakable pump that is produced in-country may in fact be more sustainable as local people can afford it, install it themselves and buy spare-parts (Clarissa Brocklehurst, UNICEF).

> "Resourcing and stronger monitoring of effective ongoing operation and maintenance are critical and have been a continual challenge in the sector over many decades."

The conference raised several issues concerning environmental, social and economic sustainability, including:

- how water supply and use are currently approached
- how water is treated
- how water resources are managed.

Indeed, the already evident effects of climate change in the Pacific are a critical challenge. In the Pacific, water use is overreaching the available supply in several places, requiring demand management measures to encourage communities to use less water and better manage the resource (Latu Kupa, PWA). Contamination of groundwater through leaking septic systems is another common issue in the Pacific. In some places (e.g. Tuvalu), this has led to social acceptance of dry sanitation options[30].

Developing countries (which have not yet invested in water and sanitation infrastructure) could leap-frog to new, more environmentally and economically sustainable solutions that are evolving in developed countries, or indeed expand upon successful indigenous solutions. Such solutions are needed to overcome the current huge challenges of (Dr Hubert Gijzen, UNESCO):

- excessive water extraction
- excessive costs of wastewater treatment and associated pipe-work
- contamination of surface and groundwater with sewage and associated pathogens
- displacement of nutrients into waterways and oceans rather than for food production environmental sanitation in urban areas (Bert Diphoorn, UN Habitat).

Many developed countries are responding to these issues by revising their thinking about the preferability of large-scale water supply and sewerage systems. An example is the expanding use of decentralised systems for wastewater treatment in Indonesia and other parts of South-East Asia (Andreas Ulrich, BORDA).

The Bremen Overseas Research and Development Agency (BORDA) has instigated 451 such systems in Indonesia alone, and decentralised systems are likely to be the dominant solution in developing countries over the coming years. Ongoing maintenance costs are a key consideration in decisions about infrastructure scale as utilities spend more money on maintenance than on new infrastructure (Tony Kelly, CEO of Yarra Valley Water, Melbourne). In addition, new solutions include:

- demand management[31]
- various forms of greywater and blackwater recycling
- reduction in wastewater volumes through vacuum toilet systems and dry sanitation systems
- source separation technologies (that separate urine from faeces to allow recovery of nitrogen and phosphorus from urine for agriculture).[32]

A combination of aquaculture and wastewater treatment, as implemented in Bangladesh by growing high-protein duckweed and feeding it to fish, is a viable option for income generation and closing nutrient-water loops (Dr Gijzen, UNESCO). We also need to build the principles of eco-hydrology back into the urban system, allowing for effective water fluctuation, retention and recharge in cities.

Overall, we need the current dialogue on sustainable water management that is occurring in developed country water industries to interact more strongly with the dialogue in the WASH development sector[33]. And, while responding to the immediate demands of death and illness caused by lack of access to clean water and sanitation is imperative, it would be irresponsible to use solutions that may undermine the long-term sustainability of those same societies, their economies and their environments.

5.10 IMPLEMENT LESSONS LEARNED ON WATER SUPPLY

A number of lessons about providing clean water supply to households were shared during the conference. First, gender was raised as a key issue requiring greater emphasis and attention. Second, the issue of water quality and arsenic was addressed. Some of the key issues raised about rural water supply include looking at different approaches to achieving safe drinking water at the household level, and responding more closely to rural customer preferences.

In the area of urban water supply, the urgent need for utility reform and what that might look like was addressed, as well as the important issues of how to address the challenge of providing services in peri-urban areas and slums.

The issue of gender

In most South-East Asian and Pacific societies, the women are responsible for providing water in households, and are the prime users of water. Though women suffer the most, they lack political voice (Tim Costello, CEO, World Vision). That lack of voice in decision making also occurs at the household level (Jocelyn Loughman, World Vision Vanuatu). The conference did not discuss in-depth the strategies to address gender; however, materials about this issue are available[34], particularly through the Gender and Water Alliance and Interagency Taskforce on Gender and Water[35].

Dealing with arsenic

Water quality issues related to arsenic contamination were addressed (Mark Henderson, UNICEF), along with the importance of:

- building awareness among government officials and communities
- informing the user of alternatives to groundwater, such as rainwater collection and storage (seasonal) pond water (household treatment) and piped water supply
- sharing lessons within countries in the region.

Community management questioned as a default approach for rural water supply

New data suggest the number of non-functioning hand-pumps in Africa is at least 20–40 per cent (see Figure 4) and pose questions about the sustainability of the community management approach (Clarissa Brocklehurst, UNICEF).

What do rural people want? – the many uses of water

The sector assumes that communities value safe water and as a result it focuses on providing safe drinking water at source. In fact, most communities use water for multiple purposes, and people value reliability and convenience rather than 100 per cent safe water. The sector needs to place more focus on water quality for a limited amount of drinking water at the household level. This means taking up new concepts such as home drinking water treatment, lightweight pumps, manual drilling and water for multiple uses (kitchen and market gardens). Innovations need to be supported and more effort given to testing and putting in place systems to certify quality of private sector innovations (see case study on Cambodia, page 26). Interventions need to take a holistic approach to improving public health to ensure they do not inadvertently create other problems. For example, open rain water harvesting tanks can provide breeding grounds for dengue fever mosquitoes (Dr Brian Kay of Australian Foundation for the Peoples of Asia and the Pacific).

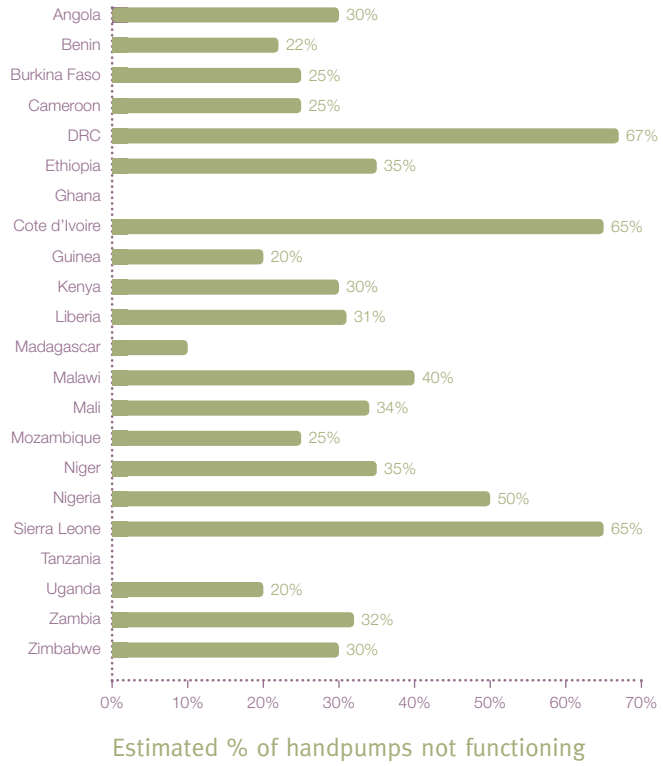

Figure 5: Percentage of non-functional handpumps in African countries

The implications of these findings are that the sector needs to develop and support alternative models such as self-supply and private-sector services. In some contexts, for example hilly areas dependent upon gravity flow schemes, community management may be the best option. Here, the focus needs to be on sustainability and putting in place mechanisms to support communities in their management role. Often local governments are best placed to do this. In Vanuatu, the Department of Geology, Mines and Water Resources provides a plumbers' training program and water committee management training to rural communities in line with their recently released *National Water Resources Strategic Plan* (NWRSP) (Erickson Sammy, Deputy Director, Department of Geology, Mines and Water Resources).

Nurturing private sector production of water filters in Cambodia

Cambodia is a major location for household water treatment research and implementation due to poor quality of drinking water and lack of centralised systems for delivering water (Jaehyang So, Global Manager, WSP). The World Health Organisation estimates that there are 10,700 deaths in Cambodia each year due to diarrheal disease.

Two types of water filters (ceramic filter and bio-sand filter), both locally manufactured were introduced by NGOs. These filters ensure safe water for drinking is available at the household level and are more cost-effective than boiling water. According to ongoing research households save an estimated US$22 per year compared to the cost of US$8 for a filter with a two-year life span.

Independent field assessments of these technologies provided objective acceptance and performance data, and gave confidence to technology proponents and marketers in introducing the technology. This approach is forming the basis of a national verification framework for household water treatment technologies.

Essential support for utility reforms

Utility reform is an agreed imperative to improve and expand services in urban areas and shift to a stronger customer focus; however, it is not necessarily easy to achieve. Some promising cases were presented during the conference. Reforms need consumer and political will to work. For example, private-sector participation in New Delhi failed to reach out to a broader set of stakeholders (e.g. civil society groups) to involve them in the communications for the reform, and potentially place them in a role of monitoring the quality of service. This resulted in lack of acceptance of the proposed reform (Jaehyang So, Global Manager, WSP).

The success of the long-term reform of Phnom Penh was due to continuing commitment to a clear set of goals on:

- low non-revenue water
- high billing and collection to enable full cost recovery
- good customer service
- accountable tariff
- strong institutional base

(Dr Visoth Chea, Assistant Director General, Phnom Penh Water Supply Authority).

A customer database was completed through surveys and proper water meters were installed. Customer education was promoted, and the whole organisation was restructured with decentralised responsibilities. Service expansion included the poor; in 2005, a subsidy for the poor to be able to reconnect was in place, and the current policy is not to disconnect the poor.

In terms of better management of water within urban systems, three solutions were given:

- Maynilad Water in Manila Philippines reported on large and rapid reductions in non-revenue water achieved through a dedicated program and resourcing (Irineo Dimaano, Head Central NRW, Maynilad Water Services).
- Effective demand management programs can overcome issues such as asset management, lack of metering, illegal connections high consumption due to leakage and wastefully running taps (Latu Kupa, Pacific Water Association). Such demand management programs required a culture change including building the capacity of staff and achieving a balance of focus on hardware and software.
- Urban utility reform is needed to shift from current approaches to solving large-scale urban issues towards more water-efficient, decentralised services involving appropriate recycling and mimicking of natural hydrological processes (Dr Gijzen, UNESCO).

Peri-urban areas and slums need assignment of clear institutional responsibilities

Additional effort is required to serve peri-urban and slum areas, to address land tenure issues and to respond to user needs and preferences. UN Habitat, in partnership with multi-lateral banks, civil society organisations and other groups, has developed methods for mapping the poor, gender and environment assessment[36] and approaches to city-level actions on pro-poor water and sanitation governance and policy development[37] (Bert Diphoorn, Un Habitat). In addition, decentralised systems are being used at the community scale in urban areas in Indonesia, including participatory planning and hygiene promotion activities, and government capacity building activities to enable clear assignment of clear responsibilities for ongoing management of the systems (Andreas Ulrich, BORDA).

> “Effective demand management programs can overcome issues such as asset management, lack of metering, illegal connections, high consumption due to leakage and wastefully running taps.”

06 LOOKING AHEAD

It is time to move from talk to action. Bringing together 200 participants for this conference is a landmark event in the history of Australia's engagement in the WASH sector and part of an increased effort to support the MDGs in the region. This event must be seen as just the beginning.

A FRAMEWORK TO ADVANCE

The conference statement provides a framework in which the WASH sector might advance, keeping the poor, and particularly women, at the core of our efforts. Within its 10 key strategies, three key paradigm shifts demanded are:

- To rethink the role of aid and public finance and use these more strategically to leverage household and private sector investment.
- To approach sanitation differently, always including a software element in interventions, and aiming for collective outcomes by triggering large-scale, rapid and sustainable behaviour change.
- To use more sustainable approaches, including low-cost, appropriate locally developed technologies, demand management and leakage reduction, integrated water resources management, and decentralised and alternative sanitation solutions.

The conference statement also reconfirms many current refrains in the sector such as the need for stronger leadership, more capacity, greater coordination between actors, improving the evidence base, and a stronger focus on women. Making the paradigm shifts happen and addressing these ongoing challenges is the collective responsibility of all conference participants and wider WASH stakeholders.

PRIORITY ACTIONS FOR KEY WASH STAKEHOLDERS

The conference affirmed the urgent need to progress priority actions in the South East Asia and Pacific region, with each stakeholder group holding key roles to increase momentum, progress and expansion in the region. See the Supplementary Conference Report for further detail of the priority actions suggested by the conference participants.

The Water and Sanitation Reference Group

This group is well positioned to promote dialogue between Australian sector players to encourage learning and the exchange of program lessons. Its envisioned role over the coming years is to improve and monitor the quality and volume of Australia's foreign aid for sanitation, hygiene and water, particularly through building up and sharing the evidence base on effective approaches, as well as increasing awareness and support among the general public for ending the global WASH crisis. The reference group commit to following up the ways in which participating agencies use and adopt the Conference Statement in a future process in 2010, as all stakeholders have vital roles to play.

AusAID and other donors

The conference has come at an opportune time to contribute to AusAID processes. As outlined by Bob McMullan, MP at the start of the conference, Australia's response to the crisis is the Water and Sanitation Initiative (2008–2011) and the formulation of a new Water, Sanitation and Hygiene Strategy (soon to be shared for public consultation). Both of these will be informed by the outcomes of the conference presented in this report.

Donors in the region see an urgent need to improve coordination and redesign monitoring systems. They also see the importance of developing capacity for effective partnerships through:

- helping partner governments to express their own priorities
- taking a long-term view of capacity needs
- establishing budgets for longer periods
- phasing support to move from policy and projects to more direct budget support.

South East Asia and Pacific governments

The key actions for governments in the region are:

- formulating policy
- developing regulations to support WASH outcomes
- establishing a coordinating body at the national level
- improving meaningful data on effectiveness.

Non government organisations

NGOs active in the region see a need for a strengthened focus on sanitation and behaviour change. They also see themselves with a key role to increase and exchange learning, and to hold governments and donors accountable, potentially through formalised and funded WASH working groups at the country and regional level. Many recognised the imperative for them to play an advocacy role so governments take can take leadership, while NGOs form a bridge between national policies and communities without duplicating government roles. The conference also identified the need for NGOs to increase efforts to coordinate with other sector actors.

The private sector

The private sector saw the need to encourage greater entrepreneurship and establishing more effective and inclusive local supply chains closely linked to customers and their preferences. A prerequisite for the proper functioning of the private sector, particularly for the poor, is the establishment of appropriate regulatory mechanisms by governments. The private sector also noted the need to work towards greater levels of trust with other sector actors.

Water utilities and professional water associations

These organisations have a core role in assisting to build technical capacity, particularly through professional associations. In addition, they are also well-placed to encourage greater political leadership in the sector and engaging more directly with local governments.

Academic and research institutions

These institutions recognise the need to focus on expanding the evidence base to support effective approaches to water and sanitation and hygiene, through research done in partnership with other sector actors. In addition, they need to provide appropriate training and assist in establishing quality assurance programs and systems.

Conclusion

The Sanitation and Water Conference has provided a forum for high-level information exchange and good opportunities for networking between agencies. This conference came at an opportune time, in the International Year of Sanitation and ahead of the Australian Government's increased commitment to WASH globally and in the region. It also provided an excellent platform for the Water and Sanitation Reference Group to continue to promote an active sector dialogue in Australia and for the conference participants to renew their commitment to sector action—to being smarter and more strategic in their actions, so that millions of people currently affected by inadequate water and sanitation services will ultimately lead healthier and more dignified lives.

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