UNICEF Water, Sanitation and Hygiene Annual Report 2009

UNICEF WASH Section
Programmes
UNICEF New York

May 2010

Cover photos: scenes from the 2009 UNICEF WASH programme (clockwise from top):

Hygiene promotion, Herat, Afghanistan (UNICEF/AFGA2009-00552/Noorani)
Household latrine and handwashing station, Kitgum, Uganda (UNICEF/UGDA2009-00076/Sekandi)
Emergency water supply, Vavuniya, Sri Lanka (UNICEF/NYHQ2009-0536/Davey)
Community handpump repair, Golombo, Mali (UNICEF/MLIA2009-00221/Pirozzi)
Executive Summary

Sector Developments

New figures released by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation confirm recent trends – the world as a whole remains on track to meet the MDG water target but is still off track to meet the sanitation target. Over 2.6 billion people – 39 per cent of the world’s population – live without access to improved sanitation, while 884 million are without improved water supplies.

These global figures mask regional disparities, the greatest being between developed regions – in which virtually everyone has access to improved facilities – and developing regions, where many still do not. Inside the developing world the greatest cause for concern is Sub-Saharan Africa, a region of over 800 million people that is off track for both water and sanitation. There are other marked disparities: coverage is much lower in rural areas than in urban areas, and coverage is lowest of all amongst the poor. Gender disparities continue: it is mainly women and girls who haul water from distant sources, and they suffer disproportionately from the negative health and personal safety impacts – and opportunity cost – of poor water and sanitation.

There is some good news within the sectoral figures. Most notable is that the dangerous practice of open defecation has declined by more than one-third, from 25 per cent of the world’s population in 1990 to 17 per cent in 2008. The number of guinea worm disease cases also continued to decline (by 31%), with only four countries registering indigenous cases in 2009, the lowest number ever.

The 2008 International Year of Sanitation (IYS) is too recent to have made an impact on these coverage figures, but there are early indications that IYS and related efforts – including ongoing regional sanitation consultation mechanisms – have helped to strengthen enabling environments for sanitation and hygiene.

The Sanitation and Water for All partnership gained momentum throughout 2009. A global alliance of developing countries, donors and support agencies, Sanitation and Water for All is seen by many as the best chance to reinvigorate the sector through targeted funding under a transparent, accountable and results-oriented framework for action, with an initial focus on the most off-track countries.

UNICEF WASH Programme Scope and Structure

The water, sanitation and hygiene programme is an integral part of the UNICEF mandate for advancing young child survival and development. Improved WASH services and behaviours have a significant impact on diarrhoea and pneumonia – the leading causes of child mortality – as well as on intestinal worm infections, trachoma, polio and other diseases. WASH interventions such as handwashing promotion and household water treatment are thus central to UNICEF-supported accelerated child survival and development campaigns.

WASH interventions are also part of UNICEF contributions towards achieving the MDG primary education and gender empowerment targets. Safe water and sanitation facilities in schools are a prerequisite for improving the quality of education outcomes, and are major factors influencing girls’ attendance at school.

The UNICEF WASH programme continues to be active in some 100 countries in 2009, with a total expenditure that rose 14 per cent from 2008 to $US 354 million. The vast majority of expenditure is at country level, and within designated priority countries. Programmes are managed by 429 professionals, probably the largest staff cadre of any WASH support agency.
Funding is significantly below requirements: approved Government-UNICEF programmes for WASH in priority countries are only 60 per cent funded. This is especially serious given the proximity of 2015 and the number of priority countries still off track to meet MDG targets.

Programme Results and Challenges

Global under-five mortality rates have declined from an estimated 12.5 million children per year in 1990 to 8.8 million in 2008, the lowest number ever. The reasons behind this steady drop are myriad and complex, but at least partially result from the high-impact interventions promoted and supported by UNICEF and its partners in the areas of health, nutrition and WASH. Celebrating this achievement would be premature, of course; far too many children continue to die of easily preventable diseases, including diarrhoea. However, the falling numbers are an indication that stakeholders should continue to focus efforts on proven, effective and integrated interventions.

There are numerous direct results from a programme of this scale and scope. Some of the key 2009 results are outlined below:

- As lead agency of the WASH Cluster UNICEF helped to strengthen emergency response capacity. Through direct interventions in fulfilment of its Core Commitments for Children, UNICEF helped to restore water and sanitation services to a total of 11.9 and 5.5 million people, respectively.
- An increasing number of people are exposed to messages about handwashing with soap at critical times through direct engagement or media campaigns. There is increasing evidence that the new programming approaches to hygiene behaviour change are leading to improved practices.
- A rapidly increasing number of countries are adopting community approaches to total sanitation (CATS). Ongoing support by UNICEF and partners is geared towards building a self-sustaining sanitation movement to achieve major reductions in open defecation.
- UNICEF and partners helped to promote more cost-effective boreholes in sub-Saharan Africa through the sponsorship of a multi-country hand-drilling feasibility study and the development of a toolkit for the professionalization of the hand-drilling industry.
- Advances were made in UNICEF’s ongoing campaign to improve the sustainability of water points, through the institutionalization of third-party sustainability checks and completion of the African handpump market survey, which strengthens the case for using and supporting local handpump markets.
- UNICEF helped to launch new Household Water Treatment and Safe Storage programmes in several countries in 2009, and worked with partners to bring existing programmes to scale. An estimated 5.6 million people benefited from UNICEF efforts in this area.
- UNICEF helped to recruit important new partners and lay the groundwork for the “Call to Action for WASH in Schools” advocacy campaign as well as providing new facilities in 27,161 schools serving 3.6 million children through direct support programmes.
- In the area of monitoring UNICEF contributed to two key successes in 2009: the formulation of new standards and monitoring systems for WASH in Schools, and the launch of a more robust method for monitoring handwashing promotion across many countries.
- In non-emergency situations, 8.4 million people benefited from new sanitation facilities and 8.3 million from water facilities.

The overarching challenge for UNICEF and other sector stakeholders is to help off-track countries meet their MDG water and sanitation targets, and contribute effectively to UNICEF’s overall programme for children. Specifically, in 2010 UNICEF will continue efforts to support the Sanitation and Water for All partnership; focus new resources on expanding WASH services in schools; continue to improve emergency WASH capacity; further expand CATS initiatives; institutionalize the promotion of handwashing with soap and accelerate initiatives to improve drilling effectiveness, economy and sustainability in Africa.
# Table of Contents

EXECUTIVE SUMMARY ........................................................................................................................................... 1

TABLE OF CONTENTS ............................................................................................................................................. 3

ABBREVIATIONS AND ACRONYMS ......................................................................................................................... 5

1 SECTOR ANALYSIS ................................................................................................................................................. 7

1.1 PROGRESS AND CHALLENGES .............................................................................................................................. 7
  New JMP coverage figures ...................................................................................................................................... 7
  The Impact of the International Year of Sanitation ................................................................................................. 8
  Guinea Worm Eradication ..................................................................................................................................... 9

1.2 SANITATION AND WATER FOR ALL: A GLOBAL FRAMEWORK FOR ACTION .............................................. 9

2 UNICEF WASH PROGRAMME OVERVIEW ............................................................................................................. 10

2.1 WASH FOR YOUNG CHILD SURVIVAL AND DEVELOPMENT ........................................................................... 10

2.2 WASH PROGRAMME SCOPE AND STRUCTURE .................................................................................................... 11

2.3 PROGRAMME HIGHLIGHTS .................................................................................................................................. 12
  Key Results ............................................................................................................................................................. 12

2.4 BUILDING THE EVIDENCE BASE FOR WASH ................................................................................................. 13

2.5 CAPACITY BUILDING .......................................................................................................................................... 14

2.6 BENEFICIARIES .................................................................................................................................................... 16

3 PROGRESS IN PRIORITY COUNTRIES .................................................................................................................. 18

3.1 BUILDING ENABLING ENVIRONMENTS .............................................................................................................. 18

3.2 HYGIENE AND SANITATION PROMOTION .......................................................................................................... 19

3.3 WATER SUPPLY AND WATER QUALITY .............................................................................................................. 23

3.3.1 SUSTAINABILITY AND COST EFFECTIVENESS ............................................................................................ 24

3.3.2 GUINEA WORM ............................................................................................................................................. 25

3.3.3 WATER QUALITY ........................................................................................................................................... 26

3.3.4 HOUSEHOLD WATER TREATMENT AND SAFE STORAGE (HWTS) ............................................................ 26

3.4 WASH IN SCHOOLS ............................................................................................................................................ 28

3.5 STRATEGIES, STANDARDS AND PARTNERSHIPS .............................................................................................. 28

3.6 SCALING UP .......................................................................................................................................................... 29

4 EMERGENCY COORDINATION AND RESPONSE ............................................................................................. 30

4.1 EMERGENCY COORDINATION, PREPAREDNESS AND RESPONSE .............................................................. 31

4.2 EMERGENCY WASH CAPACITY BUILDING .................................................................................................... 33

5 PROGRESS IN NON-PRIORITY COUNTRIES ......................................................................................................... 34

6 WASH AND THE ENVIRONMENT ......................................................................................................................... 36

7 GENDER AND WASH .......................................................................................................................................... 37

8 SECTOR MONITORING ........................................................................................................................................ 38

9 PARTNERSHIPS ..................................................................................................................................................... 40

10 UNICEF EXPENDITURE FOR WASH .................................................................................................................... 42

10.1 EXPENDITURE PATTERNS AND FUNDING STATUS .......................................................................................... 42

10.2 FUNDING SOURCES ......................................................................................................................................... 44

11 CHALLENGES FOR 2010 AND BEYOND ........................................................................................................... 45

ANNEX: UNICEF WASH PRIORITY COUNTRIES ....................................................................................................... 47
**Figures**

Figure 1: Progress on meeting the MDG water and sanitation targets  
Figure 2: Global water and sanitation coverage, 2008  
Figure 3: Guinea Worm Case Reductions 2000 to 2009  
Figure 4: Programme balance by expenditure, 2009  
Figure 5: Water and sanitation direct beneficiaries, 2007 - 2009  
Figure 6: WASH in Schools direct beneficiaries 2007 - 2009  
Figure 7: Proportion of priority countries with discrete budget lines for sanitation and hygiene in medium-term budget or equivalent, by region and total  
Figure 8: Countries with a national behaviour change communication programme that promotes correct and sustained handwashing with soap  
Figure 9: A still from the “washi-washy wa” dance choreographed by Japan’s Kaiji Moriyama  
Figure 10: Programme countries with UNICEF-supported programmes based on the CATS (community approaches to total sanitation) model  
Figure 11: Estimated number of handpumps exported to Africa: a rising trend  
Figure 12: Hydrogeological map for manual drilling potential: Senegal (draft)  
Figure 13: Countries with UNICEF WASH in Schools activities  
Figure 14: Water and sanitation facilities in priority WASH countries  
Figure 15: Emergency placements in the field under UNICEF standby arrangements with partners  
Figure 16: Map of the 99 countries (priority + other) countries with activities in 2009  
Figure 17: Gender and water hauling – water collection responsibility breakdown by women, men, girls and boys, JMP, 2008 data  
Figure 18: Total UNICEF WASH expenditure, 1990 – 2009  
Figure 19: Funding status of approved WASH programmes in the 60 priority countries, January 2010  
Figure 20: Funding sources, 2009

**Tables**

Table 1: Sanitation and Water For All Partners  
Table 2: Selected evidence and advocacy publication, 2009  
Table 3: Selected UNICEF-supported WASH technical and capacity building publications, 2009  
Table 4: Estimated direct beneficiaries from UNICEF-supported community and school WASH programmes, 2009  
Table 5: Hygiene promotion and HWTS beneficiary estimates, 2009  
Table 6: Global WASH Cluster Projects  
Table 7: Countries in which WASH Clusters have been Activated, 2005 to end 2009  
Table 8: Countries in which UNICEF emergency expenditure was greater than $1 million in 2009  
Table 9: Gender balance of UNICEF professional WASH officers  
Table 10: New MICS hygiene indicators  
Table 11: Ten Key Global WASH Partnership Frameworks  
Table 12: Examples of UN Joint Projects  
Table 13: Top ten countries by WASH expenditure, 2007, 2008, and 2009 (US$)  
Table 14: Top ten donors by total WASH expenditure, 2002 to 2009 (descending order by size of total contribution – EOR plus ORR)  
Table 15: Top ten donors by emergency and development programme expenditure
## Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACF</td>
<td>Action contre la Faim</td>
</tr>
<tr>
<td>ACSD</td>
<td>Accelerated Child Survival and Development</td>
</tr>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>AED</td>
<td>Academy for Educational Development</td>
</tr>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>AMCOW</td>
<td>African Ministers' Council on Water</td>
</tr>
<tr>
<td>CANADEM</td>
<td>Canadian International Civilian Reserve</td>
</tr>
<tr>
<td>CATS</td>
<td>Community Approaches to Total Sanitation</td>
</tr>
<tr>
<td>CCCs</td>
<td>Core Commitments for Children</td>
</tr>
<tr>
<td>CEE/CIS</td>
<td>Central and Eastern Europe and the Commonwealth of Independent States</td>
</tr>
<tr>
<td>CFS</td>
<td>Child-Friendly School</td>
</tr>
<tr>
<td>CHFRG</td>
<td>Child Health Epidemiology Reference Group</td>
</tr>
<tr>
<td>CLTS</td>
<td>Community Led Total Sanitation</td>
</tr>
<tr>
<td>CREPA</td>
<td>Centre Régional pour l'Eau Potable et l'Assainissement à faible coût</td>
</tr>
<tr>
<td>CRS</td>
<td>Catholic Relief Services</td>
</tr>
<tr>
<td>DEWATS</td>
<td>Decentralised Wastewater Treatment System</td>
</tr>
<tr>
<td>DFID</td>
<td>Department for International Development (UK)</td>
</tr>
<tr>
<td>DGIS</td>
<td>Directorate-General for International Cooperation (Government of the Netherlands)</td>
</tr>
<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td>EAPR</td>
<td>East Asia and the Pacific Region</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>ECHO</td>
<td>European Commission Humanitarian Aid Office</td>
</tr>
<tr>
<td>EMIS</td>
<td>Education Management Information Systems</td>
</tr>
<tr>
<td>EOR</td>
<td>Emergency Other Resources</td>
</tr>
<tr>
<td>ESAR</td>
<td>Eastern and Southern Africa Region</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>GHD</td>
<td>Global Handwashing Day</td>
</tr>
<tr>
<td>GLAAS</td>
<td>UN-Water Global Annual Assessment of Sanitation and Drinking-Water</td>
</tr>
<tr>
<td>GSM</td>
<td>Global System for Mobile communications</td>
</tr>
<tr>
<td>HWTS</td>
<td>Household Water Treatment and Safe Storage</td>
</tr>
<tr>
<td>HWWS</td>
<td>Handwashing with soap</td>
</tr>
<tr>
<td>IASC</td>
<td>Inter-Agency Standing Committee</td>
</tr>
<tr>
<td>IDP</td>
<td>Internally Displaced Persons</td>
</tr>
<tr>
<td>ILE</td>
<td>International Learning Exchange</td>
</tr>
<tr>
<td>IRC</td>
<td>International Water and Sanitation Centre</td>
</tr>
<tr>
<td>IYS</td>
<td>International Year of Sanitation</td>
</tr>
<tr>
<td>LAC</td>
<td>Latin America and the Caribbean</td>
</tr>
<tr>
<td>JMP</td>
<td>Joint Monitoring Programme for Water Supply and Sanitation</td>
</tr>
<tr>
<td>LSHTM</td>
<td>London School of Hygiene &amp; Tropical Medicine</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>MDG-F</td>
<td>MDG Achievement Fund</td>
</tr>
<tr>
<td>MENA</td>
<td>Middle East and North Africa</td>
</tr>
<tr>
<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>MSB</td>
<td>Swedish Civil Contingencies Agency</td>
</tr>
<tr>
<td>MTSP</td>
<td>Medium-Term Strategic Plan</td>
</tr>
<tr>
<td>NatCom</td>
<td>National Committee</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental Organization</td>
</tr>
<tr>
<td>NRC</td>
<td>Norwegian Refugee Council</td>
</tr>
<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
</tr>
<tr>
<td>ODF</td>
<td>open defecation free</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OFDA</td>
<td>Office of U.S. Foreign Disaster Assistance</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
</tr>
<tr>
<td>PPPHW</td>
<td>Global Public-Private Partnership for Handwashing with Soap</td>
</tr>
<tr>
<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
</tr>
<tr>
<td>SA</td>
<td>South Asia</td>
</tr>
<tr>
<td>RRT</td>
<td>Rapid Response Team</td>
</tr>
<tr>
<td>RWSN</td>
<td>Rural Water Supply Network</td>
</tr>
<tr>
<td>SACOSAN</td>
<td>South Asian Conference on Sanitation</td>
</tr>
<tr>
<td>SANDEC</td>
<td>Department of Water and Sanitation in Developing Countries, in the Swiss Federal Institute of Aquatic Science and Technology (EAWAG)</td>
</tr>
<tr>
<td>SDC</td>
<td>Swiss Agency for Development and Cooperation</td>
</tr>
<tr>
<td>SIDA</td>
<td>Swedish International Development Agency</td>
</tr>
<tr>
<td>SRSA</td>
<td>Swedish Rescue Services Agency</td>
</tr>
<tr>
<td>SWAp</td>
<td>Sector-Wide Approaches to programming</td>
</tr>
<tr>
<td>UNDAF</td>
<td>United Nations Development Assistance Framework</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
</tr>
<tr>
<td>WCAR</td>
<td>West and Central Africa Region</td>
</tr>
<tr>
<td>WEDC</td>
<td>Water, Engineering and Development Centre</td>
</tr>
<tr>
<td>WIN</td>
<td>Water Integrity Network</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WSMP</td>
<td>Water and Sanitation Monitoring Platform</td>
</tr>
<tr>
<td>WSP</td>
<td>Water and Sanitation Program</td>
</tr>
<tr>
<td>YCSD</td>
<td>Young Child Survival and Development</td>
</tr>
</tbody>
</table>
1 Sector Analysis

1.1 Progress and Challenges

New JMP coverage figures
The 2008 water and sanitation coverage figures released in early 2010 by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) show that progress continues to be on track to achieve the MDG drinking water target, but is still off track for sanitation. At the current rate of progress the sanitation target will be missed by 13 percentage points and the water target will be exceeded by 3 points (Figure 1).

Figure 1: Progress on meeting the MDG water and sanitation targets

Over 2.6 billion people – almost 39 per cent of the world’s population – still live without improved sanitation facilities. At current trends, 2.7 billion will be without in 2015. Open defecation – the riskiest sanitation practice of all – is still practiced by 1.1 billion people, almost two-thirds of whom live in South Asia.

These global figures for sanitation mask significant disparities, the greatest being between the developed regions - where virtually everyone is covered – and developing regions, where only about half the population uses improved facilities. Other important disparities continue to exist: coverage is lowest in Sub-Saharan Africa and South Asia, coverage is much lower in rural areas than in urban areas, and coverage is lowest of all among the poor.

For water the situation is better, but even if the MDG target is met as expected there will still be an estimated 672 million without improved supplies in 2015. Given the importance of water for the health and welfare of communities, this is still an unacceptably high number. And like for sanitation, disparities are striking for water: all but a few countries in Sub-Saharan Africa will not meet the MDGs, and people in rural areas and in poor communities are disproportionately less likely to use an improved water source.

There are also major gender disparities in the sector. In 72 per cent of households without a water source on the premises, women and girls haul the water. In many countries this involves multiple trips of 30 minutes or more. And women disproportionately suffer the negative health and personal safety impacts of not having a private toilet within their household compounds.

There is also good news within the new JMP dataset. Despite the disparities, water programmes on aggregate have clearly been successful over the last two decades: all regions of the world have had some success with the East Asia and the Pacific region (EAPR) registering the highest jump, from 69 per cent with improved water supplies in 1990 to 88 per cent in 2008.

Open defecation is on the decline worldwide, with a global drop from 25 per cent in 1990 to 17 per cent in 2008, representing a decrease of 168 million engaging in the practice since 1990 (Figure 2). Open defecation is now practiced by less than ten per cent of the population in three regions: EAPR, Middle East and North Africa (MENA), and Latin America and the Caribbean (LAC).

The Impact of the International Year of Sanitation

The new JMP figures are for 2008, thus they cannot reflect the impact of the 2008 International Year of Sanitation (IYS). The extent of the impact of IYS on reducing open defecation and promoting the use of latrines and toilets will only become clear in two year’s time when the 2010 data is gathered and published.

However, there are a number of early indications that IYS and related efforts – such as Africa’s eThekwini Declaration and similar outputs from regional sanitation conferences – suggesting that enabling environments for sanitation and hygiene are being strengthened.

For example, national budgets for sanitation programming increased in several countries in 2009, in part due to successful advocacy linked to IYS. In Cambodia the national budget for sanitation and hygiene increased by 60 per cent from 2008 to 2009. Other countries reporting increased budgets for sanitation and/or hygiene programming include China, Djibouti, Iraq, Kazakhstan and Nepal.

In a related positive trend, more countries now include discrete budget lines for sanitation and hygiene within national medium-term budgeting instruments. According to data gathered by UNICEF country offices, the number of countries that have unpacked sectoral funding in this way has jumped from 57 in 2008 to 71 in 2009. Many sector observers consider this as a key first step toward prioritising sanitation and hygiene.

Enabling environments have been strengthened in other ways. Many countries have developed or modified national sanitation policies and strategies (including Burundi, Gambia, Eritrea, Myanmar, Timor-Leste, Togo and Sri Lanka). Elsewhere, planning instruments were strengthened, including in Guyana, Namibia, South Africa and Zambia). And in an increasing number of countries, governments have embraced the Community Approaches to Total Sanitation (CATS) model to rapidly scale-up progress.

Of course, policies, plans and budgets do not automatically translate into real and sustainable progress on the ground, but they represent positive steps in the right direction.
**Guinea Worm Eradication**

There was good news on the guinea worm eradication front again in 2009: the number of cases of dracunculiasis fell by almost a third (31%) to 3,203; the number of endemic countries dropped from six to four with both Niger and Nigeria reporting zero cases in 2009; and another seven countries (Benin, Cambodia, Guinea, Mauritania, the Marshall Islands, Palau and Uganda) successfully passed the three-year WHO certification process.

The biggest news is Nigeria’s progress to zero cases. Nigeria was once the worst-affected country in the world, reporting an unprecedented 640,000 cases in 1989. As in previous years, Southern Sudan remains the biggest challenge with 87 per cent of all remaining cases in 2009.

1.2 **Sanitation and Water for All: A Global Framework for Action**

The Sanitation and Water for All partnership gained momentum in 2009. An alliance of developing countries, donors, development banks, United Nations agencies and civil society organizations, Sanitation and Water for All focuses on achieving the MDGs for the most off-track countries in the short term, and on helping to achieve universal and sustainable access to sanitation and drinking water in the long term.

Sanitation and Water for All is designed to reinvigorate the sector through a transparent, accountable and results-oriented framework for action that provides a common vision, values and principles.

Specifically, Sanitation and Water for All aims to:

- increase political prioritisation for sustainable sanitation and drinking water;
- support strong national sanitation and drinking water planning, investment and accountability frameworks;
- improve targeting and impact of resources for sustainable sanitation and drinking water;
- support effective decision making by providing detailed information and evidence on sanitation and drinking water;
- strengthen mutual accountability of governments and development partners.

Initiated in 2008 by a core group of partners, Sanitation and Water for All evolved in 2009 and gained acceptance amongst important sectoral actors and government partners as a key global framework for cooperation. Throughout the latter half of the year, efforts were centred on solidifying commitments to the process, as well as planning a high-level meeting with ministers of finance and line ministers from developing countries along with senior official from key sectoral donors. The meeting is designed to engage government officials at the highest levels and increase their knowledge and understanding of the

---

economic impacts of sector investments and the huge potential benefits for public health, gender equity, poverty reduction and economic growth.

Table 1: Sanitation and Water For All Partners

<table>
<thead>
<tr>
<th>African Ministers’ Council on Water (AMCOW)</th>
<th>United Nations Human Settlements Programme (UN-HABITAT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Civil Society Network (ANEW)</td>
<td>UNICEF</td>
</tr>
<tr>
<td>End Water Poverty</td>
<td>United Nations Development Programme (UNDP)</td>
</tr>
<tr>
<td>Freshwater Action Network South Asia (FAN SA)</td>
<td>WaterAid</td>
</tr>
<tr>
<td>International Water Association (IWA)</td>
<td>Water Integrity Network (WIN)</td>
</tr>
<tr>
<td>IRC International Water and Sanitation Center</td>
<td>Water and Sanitation Program/World Bank (WSP)</td>
</tr>
<tr>
<td>Irish Aid</td>
<td>Water Supply and Sanitation Collaborative Council (WSSCC)</td>
</tr>
<tr>
<td>Netherlands Government (DGIS)</td>
<td>World Health Organization (WHO)</td>
</tr>
<tr>
<td>Switzerland Government (SDC)</td>
<td></td>
</tr>
<tr>
<td>United Kingdom Government (DFID)</td>
<td></td>
</tr>
<tr>
<td>UN-Water</td>
<td></td>
</tr>
</tbody>
</table>

2 UNICEF WASH Programme Overview

2.1 WASH for Young Child Survival and Development

Promoting and supporting effective programmes to improve young child survival and development is a priority for UNICEF. These programmes focus on high-impact interventions and services to improve survival rates amongst vulnerable populations, along with support for initiatives that improve the quality of care of young children. WASH is an integral part of this package of priority interventions, which also includes essential child health, maternal health and nutrition interventions along with initiatives that strengthen care networks for children in households and communities. Because these interventions encompass multiple sectors and different types of delivery platforms, it is essential that the programmes are well-coordinated for maximum effectiveness and efficiency. UNICEF headquarters, regional and country offices are structured accordingly, with administrative arrangement that encourage multi-sectoral coordination and synergy.

Initiatives to focus efforts for young child survival and development at country level take on several forms. In high priority countries and geographic areas (where child mortality rates are high), UNICEF supports accelerated child survival and development (ACSD) campaigns that deliver a limited set of high-impact services to a maximum number of people in a short period of time. These are sometimes delivered as supplementary immunization activities or through “child health days” or “child health weeks” campaigns. Campaigns like this are supported by UNICEF in over 50 countries, and they are achieving increasingly high coverage rates. For example, both Mozambique and Somalia achieved virtually 100 per cent coverage of its national under-five population in 2009, while programmes elsewhere (e.g., Angola, Ghana, Malawi and Sudan) were significantly expanded.

The WASH components of these integrated young child survival and development campaigns also vary from country to country. The most common type of WASH intervention is handwashing with soap (HWWS) promotion delivered both directly through campaign workers (e.g. health extension workers) and through the media as part of parallel ACSD communication campaigns. Most large ACSD campaigns in priority countries (e.g. DR Congo, Nigeria, Sudan) now include HWWS. Some countries (e.g. Liberia,
Somalia, Tanzania) incorporate household water treatment and safe storage (HWTS). Campaigns also often include the WASH-related oral dehydration therapy and deworming treatments for children.

ACSD and related programmes for young child survival development go beyond campaigns. UNICEF WASH, health, nutrition and communication programmes are increasingly integrated to support priority interventions. UNICEF also works with government and non-state partners – with increasing success – to institutionalize ACSD principles within the national development budgets and planning mechanisms.

### 2.2 WASH Programme Scope and Structure

WASH is not only a key part of UNICEF’s efforts for young child survival and development. It is also integral to other organizational priorities, especially in the areas of primary education, gender equality and empowerment, and for efforts to mitigate the effects of climate change. The UNICEF programme thus includes a range of interventions across all these areas.

Continuing a decade-long trend, the UNICEF overall expenditure on WASH programming expanded again in 2009 by 14 per cent to a total of US$ 345 million. While certainly significant, this level of expenditure is relatively modest in relation to total sectoral funding from donors, and especially from government sources at country level. Conforming to pattern, most expenditure (92%) was in UNICEF’s 60 priority WASH countries (Annex A), and the vast majority (98%) was spent at country level.

However, expenditure is significantly below what UNICEF would like to spend in the sector. Priority country programme budgets – which are determined jointly with governments based on defined requirements – are currently only 60 per cent funded (see Section 10). This is especially serious given the proximity of 2015 and the number of priority countries still off track to meet MDG targets. The balance is being sought through a variety of fund-raising mechanisms.

The 2009 balance between major programme components as measured by expenditure levels for development programmes is illustrated in Figure 4. While a direct comparison with previous years’ data sets is not possible (UNICEF modified its budget coding system in 2009), the figures suggest that the proportion of expenditure on capacity building, management and advocacy continues to rise, as does expenditure on water quality and environment initiatives. Hygiene and sanitation proportions are similar to previous years, while water supply expenditure fell, reflecting the rebalancing of WASH programming.

The proportion of UNICEF expenditure for emergency programming again dropped in 2009 to 40 per cent globally. This represents a continuing trend from highs in the mid fifties five years ago. However, humanitarian crises are cyclical, and this percentage will continue to change. It is already clear that UNICEF’s Haiti relief and recovery intervention will be one of its largest ever.
The number of UNICEF staff dedicated to WASH programming increased by 14 per cent, to a total of 429 professionals. This is probably the largest staff cadre of any external support agency working in the sector, with the vast majority of staff posted at country level.

The geographic scope of the WASH programme continues encompass just under two-thirds of all UNICEF country programmes of support: 99 out of 155 countries.

2.3 Programme Highlights

Key Results
Global under-five mortality rates have declined from an estimated 12.5 million children per year in 1990 to 8.8 million in 2008, the lowest number ever. The reasons behind this steady drop are myriad and complex, but it is at least partially the result of the kind of high-impact interventions promoted and supported by UNICEF and its partners through accelerated child survival and development initiatives, of which WASH forms an integral part. Celebrating this achievement would be premature of course; far too many children continue to die of easily preventable diseases, including diarrhoea. However, the falling numbers are an indication that stakeholders should continue to focus efforts on the survival of young children, through packages of effective interventions such as the promotion handwashing with soap.

The establishment of the Sanitation and Water for All partnership was the result of efforts of several agencies including UNICEF, which hosted the temporary Secretariat of the Interim Core Group and led preparations for the High Level Meeting (see Section 1.2).

UNICEF continued to be a pivotal agency for emergency WASH, building capacity for more effective response through its leadership of the WASH cluster. UNICEF is also responsible for fulfilling its Core Commitment for Children through direct interventions in emergencies; in 2009 UNICEF helped to restore water and sanitation services to a total of 11.9 and 5.5 million people respectively, in addition to hygiene promotion efforts (Section 4).

Data from UNICEF country offices indicate that an increasing number of people are exposed to messages about handwashing with soap at critical times. An estimated 67.5 million people were reached directly and an additional 288 million potentially reached through media campaigns. There is also an increasing body of evidence that promotion campaigns are indeed translating into improved behaviour practices (Section 3.2).

Important progress was made on monitoring the “H” in WASH in 2009. Agreement was reached on a robust set of proxy indicators will be used to measure progress on handwashing promotion across many countries through household surveys, for the first time giving the sector standardised data on behavioural change (Section 8).

A rapidly increasing number of countries are adopting community approaches to total sanitation (CATS). UNICEF strongly supported governments, NGOs and communities to apply this approach and build capacity to help transform it into a self-sustaining sanitation movement (Section 3.2).

UNICEF and partners helped to promote more cost-effective boreholes in sub-Saharan Africa (which is not on track to meet the MDG water target) through various initiatives including the sponsorship of a multi-country manual-drilling feasibility study and the development of a toolkit for the
professionalization of the manual-drilling industry. A draft code of practice for cost-effective boreholes was assessed in three countries (Section 3.3).

Advances were also made in UNICEF’s ongoing campaign to improve the sustainability of water points, through the institutionalisation of third-party sustainability checks within country programmes and through the finalisation of the African handpump market survey, which strengthens the case for using and supporting local handpump markets (Section 3.3).

UNICEF helped to launch new Household Water Treatment and Safe Storage (HWTS) programmes in several countries in 2009, and worked with partners to bring existing programmes to scale. An estimated 5.6 million people benefited from UNICEF efforts in this area (Section 3.3).

In the area of WASH in Schools, 2009 was the year for laying the framework for a major push starting in 2010 including the publication of global guidelines for national standards, new monitoring initiatives, the recruitment of important new partners, and the formulation of the “Call to Action for WASH in Schools” advocacy campaign (Section 3.4).

In non-emergency situations, 8.4 million people benefited from new sanitation facilities and 8.3 million from water facilities.

**Building the Evidence Base for WASH**

UNICEF sponsors studies, synthesizes evidence, and publishes advocacy documents on an ongoing basis.

A major advocacy report – *Diarrhoea: Why Children Are Still Dying and What Can Be Done* – was published jointly with WHO in 2009. The document presents the causes of diarrhoea, data on access to means of prevention and treatment, and a seven-point plan to reduce diarrhoea deaths. Aimed at policy makers, the publication makes a strong case for an increase in attention and resources for treating and preventing diarrhoea.

Another significant 2009 publication – also prepared jointly with WHO – is the *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*. The first-ever document of its kind, it is based on the latest evidence related to WASH in schools and is designed to be cornerstone of new efforts to develop national standards, monitoring systems and policy frameworks.

The *African Handpump Market Mapping Study* was completed in 2009 and the report published (jointly by UNICEF and the Rural Water Supply Network). As discussed in Section 3.3, the study is already having an impact on UNICEF’s handpump procurement procedures and is prompting new discussion within the sector on water point sustainability.

### Table 2: Selected evidence and advocacy publication, 2009

<table>
<thead>
<tr>
<th>Document</th>
<th>Organization(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhoea: why children are still dying and what can be done</td>
<td>UNICEF and WHO</td>
</tr>
<tr>
<td>Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings</td>
<td>WHO, UNICEF</td>
</tr>
<tr>
<td>African Handpump Market Mapping Study</td>
<td>UNICEF and RWSN (Rural Water Supply Network)</td>
</tr>
<tr>
<td>WASH Cluster lessons learned publications, including</td>
<td></td>
</tr>
<tr>
<td>- Implementation of the WASH Cluster Approach: Good Practice and Lessons Learned.</td>
<td></td>
</tr>
<tr>
<td>- Lessons learned in WASH response during Rural/Urban emergencies (2 documents)</td>
<td></td>
</tr>
<tr>
<td>- Review of the WASH Cluster in Myanmar</td>
<td></td>
</tr>
<tr>
<td>WASH Cluster Learning Project (lead agency: ACF, lead Cluster agency: UNICEF)</td>
<td></td>
</tr>
<tr>
<td>Evidence base: Water, sanitation and hygiene interventions</td>
<td>UNICEF (literature review published twice annually)</td>
</tr>
</tbody>
</table>
In addition to these and other global initiatives, UNICEF sponsors a wide range of WASH-related assessments and studies at country level to build the evidence base and improve programming. There are many examples of such initiatives such as: studies on handwashing behaviour change in Nepal and Bangladesh, studies on arsenic in groundwater in Kenya and Lao PDR, an evaluation of the community-led sanitation programme in Ghana, a major WASH baseline survey in Mozambique, a WASH gender equity study in Cambodia, a sanitation review in Timor-Leste, an evaluation of water safety plans in Viet Nam, an external assessment of a large behaviour change communication pilot project in Afghanistan, and many others. See elsewhere in this report for additional examples.

**Capacity Building**

Important steps were taken to further build capacity of the UNICEF WASH staff cadre in 2009.

The WASH in Emergencies training programme for UNICEF WASH staff was finalised and launched. Multiple sessions were held, reaching about one-quarter of professional WASH staff members by the end of 2009. As cluster lead, UNICEF also supported the ongoing WASH Cluster training for capacity building project and continued to work with standby partners to build surge capacity for humanitarian response (see Section 4).

The distance education programme using the WebEx online toolset was greatly expanded in 2009. A total of 21 separate sessions were held, covering the following subject areas:

- Handwashing with soap promotion: including preparation and follow-up for Global Handwashing Day;
- Household water treatment and safe storage (HWTS): with a focus on scaling up interventions nationally;
- School-led total sanitation: building on successful efforts in Nepal, Sierra Leone and elsewhere;
- Community Approaches to Total Sanitation (CATS): supporting expansion of the model into countries in Latin America and Asia;
- Guidelines on Minimum Standards for WASH in Schools: a joint session with WHO for regional and country level staff on the importance and use of the new publication;
- Menstrual Hygiene Management: a presentation and question-and-answer session on India’s programme;
- WASH Child Survival and Development: including a presentation on the latest evidence on the importance of WASH.

The sessions had over 150 participants, mainly UNICEF staff plus some partners. Many of the sessions produced sets of participants notes that continue to be used as training resource material (Table 3).
Table 3: Selected UNICEF-supported WASH technical and capacity building publications, 2009

<table>
<thead>
<tr>
<th>WASH Cluster Coordination Handbook, WASH Cluster</th>
<th>Soap stories and toilet tales: 10 case studies, UNICEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>WASH Cluster Briefing: Performance Management and Learning, WASH Cluster Learning Project</td>
<td>Notes and News on WASH in Schools, IRC and UNICEF (published twice annually)</td>
</tr>
<tr>
<td>The Human Right to Water and Sanitation in Emergencies: legal framework and guide to advocacy, WASH Cluster</td>
<td>UNICEF web-based Training Packages developed in 2009 (presentation and/or participants notes)</td>
</tr>
<tr>
<td>Manuals produced through the Professionalization of Manual Drilling Project (UNICEF, Enterprise Works/VITA and Practica)</td>
<td>• Going to Scale with Household Water Treatment and Safe Storage</td>
</tr>
<tr>
<td>• Guide for Country Implementation</td>
<td>• Community Approaches to Total Sanitation</td>
</tr>
<tr>
<td>• Business Training</td>
<td>• School-led Total Sanitation</td>
</tr>
<tr>
<td>• Source of Finance</td>
<td>• Menstrual Hygiene Management</td>
</tr>
<tr>
<td>• Understanding Groundwater and Wells</td>
<td>• WASH Child Survival and Development</td>
</tr>
<tr>
<td>• Rota-Sludge Drilling</td>
<td>• Environment, Climate Change and WASH</td>
</tr>
</tbody>
</table>

Capacity building initiatives for both state and non-state partners is an inherent part of all UNICEF WASH programmes. Counterparts participate in training programmes in a variety of areas, with a focus on new approaches and models for scaling up progress towards meeting the MDG targets. Key areas of focus included CATS, HWTS, cost-effective drilling, sector monitoring, emergency preparation and response, amongst others.

Capacity building goes well beyond training sessions, it includes efforts to build institutions and develop in-country resources, including – notably – the private sector. The effort to build capacity of national drilling industries in Africa is a good example (see Section 3.3). Supporting national efforts to build capacity in the sector is also a key part of UNICEF’s role in Sanitation and Water for All.

Given its global presence, UNICEF is well-placed to facilitate South-South engagement amongst developing countries, and this is a growing part of overall capacity building efforts. UNICEF promotes South-South engagement in a variety of ways, including through study tours and multi-country information exchange forums, and through support to South-based learning and knowledge networking institutes. South-South cooperation ranges from highly specific technical consultations to broader policy dialogue amongst key decision makers.

The engagement of experts from Bangladesh to build capacity for CATS in several African countries is a good example of how UNICEF can facilitate South-South engagement. The comprehensive study tour packages offered through India’s International Learning Exchange (ILE) programme is another. Other instances include the formal exchange mechanisms on monitoring through the three-country JMP monitoring pilot project, and a new mechanism for information sharing in the Eastern and Southern Africa region (ESAR) amongst countries involved in the regional Government of Netherlands-supported WASH programme. UNICEF’s regional offices are instrumental in supporting these kinds of exchanges, through periodic WASH-Net meetings and a variety of other mechanisms.
2.4 Beneficiaries

Tens of millions of people directly benefited from UNICEF WASH activities in 2009. These include people benefiting from emergency interventions to restore services, people taking part in UNICEF-supported pilot projects and people in living in geographic areas targeted by UNICEF and its implementation partners. The success of the UNICEF WASH programme cannot be measured by counting beneficiaries alone, however the beneficiary numbers do provide an indication of the scope of the programme and one facet of its impact on people’s lives.

As noted in previous reports, the water and sanitation beneficiary figures below are based on a set of assumptions (detailed in the box).

The number of people directly benefiting from UNICEF-supported development and emergency programmes that construct or rehabilitate sanitation facilities increased in 2009, to 13.9 million. Water supply beneficiaries dropped to a total of 20.2 million – an expected result as UNICEF rebalances its WASH programming, increasing emphasis on sanitation, hygiene and capacity-building. See Table 4 for details, and Figures 5 and 6 for an illustration of cumulative beneficiaries.

New this year is an estimate of the number of people who benefited from handwashing promotion and household water quality interventions during 2009 (Table 5).

Country offices were asked to estimate the number of people benefiting from direct interventions to promote handwashing with soap, as well as the number of people potentially reached through media campaigns. The former figure is much smaller than the latter. It includes direct promotion activities with communities by hygiene promoters, peer-to-peer activities, people participating in handwashing promotion components of sanitation and water programmes, etc. The latter figure – people reached through media campaigns – is only a rough estimate.

The number of people benefiting from HWTS interventions was also estimated for the first time in 2009. Beneficiaries were split into two categories: the first is those who benefited from interventions that involve the distribution and/or sale of filter technologies such as ceramic filters or biofilters. The second category encompasses those who benefited from the distribution of chlorine-based purification tablets and sachets in emergencies, plus those who purchased bottles of dilute sodium hypochlorite solution (such as WaterGuard) as part of UNICEF-supported promotion programmes for these products.

The number of people who indirectly benefit from UNICEF’s overall programme of support (i.e. the number who ultimately benefit from policy reforms, capacity building, fund leveraging, etc.) is much greater than the number who benefit directly from UNICEF-supported service delivery. Ultimately, the only valid measurement

### Assumptions and Notes for Beneficiary Figures

- Service standards (e.g., number of people per water point) vary significantly from place to place.
- The level of UNICEF contribution to systems also varies significantly from country to country, from project to project and even from year to year.
- School water points often serve the host community as well as the school.
- There is no distinction made between rehabilitated and newly constructed water supply facilities in these tables. Beneficiaries from rehabilitated systems are counted because they represent people who – at least for some period of time – have not had access to improved water supplies, but now do.
- Some emergency water and sanitation systems are temporary.
- The distinction between emergency and “development” WASH facilities is inexact. Although listed separately in the tables, in reality there is some overlap between the two.
of beneficiaries is the number of people who gain access to and use facilities – and who practice safe hygiene behaviour – stemming from the efforts of all contributors to national WASH programmes, as monitored through the JMP and other independent mechanisms.

Table 4: Estimated direct beneficiaries from UNICEF-supported community and school WASH programmes, 2009

<table>
<thead>
<tr>
<th>Community Water Supply</th>
<th>Community Sanitation</th>
<th>WASH in Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Programmes</td>
<td>Development Programmes</td>
<td>Emergency Programmes</td>
</tr>
<tr>
<td>11.9 million</td>
<td>8.3 million</td>
<td>5.5 million</td>
</tr>
</tbody>
</table>

Figure 5: Water and sanitation direct beneficiaries, 2007 - 2009

![Water and sanitation direct beneficiaries, 2007 - 2009](image)

Figure 6: WASH in Schools direct beneficiaries, 2007 - 2009

![WASH in Schools direct beneficiaries, 2007 - 2009](image)
Table 5: Hygiene promotion and HWTS beneficiary estimates, 2009

<table>
<thead>
<tr>
<th>Hygiene promotion beneficiary estimates</th>
<th>HWTS beneficiary estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>People benefiting from direct interventions to promote handwashing with soap</td>
<td>Potential population reached through media campaigns</td>
</tr>
<tr>
<td>67.5 million</td>
<td>288 million</td>
</tr>
</tbody>
</table>

3 Progress in Priority Countries

3.1 Building Enabling Environments

UNICEF continues to stress an upstream approach to programming designed to develop an enabling national programming framework while leveraging resources to scale up progress towards the MDGs. This encompasses a wide range of activities including support to policy reforms, strategy development, planning, capacity building, and the development of improved institutional and coordination mechanisms.

New national WASH policies or legislation were finalized in several countries in 2009. For example, a new national drinking water policy was approved by cabinet in Pakistan, a rural sanitation policy was launched in Eritrea, a water resources management policy was finalised in Colombia, a national hygiene and sanitation policy was developed and approved in Togo, a rural WASH policy was developed in Afghanistan, and the National Water and Sanitation Policy was updated in Rwanda, all with the support of UNICEF. UNICEF is also supporting major on-going WASH policy development processes, such as the AusAID-funded sanitation policy development initiative in Timor-Leste. Policy development processes are also ongoing in Burundi, Guinea, Iraq, Lao PDR, Sri Lanka and Sudan.

UNICEF supports government partners to operationalise policies in a number of ways. In Kenya, for example, UNICEF produced a “popular” version of the 2008 National Sanitation and Hygiene Policy to help ensure wide dissemination and also helped to develop a strategy and implementation guidelines. In Sudan UNICEF support contributed to the landmark Khartoum Declaration in which the national ministries responsible for water, sanitation, education, health, religion and governance made specific commitments to scale up sanitation and hygiene programming in line with new policies.

The Community Approaches to Total Sanitation (CATS) strategy has been incorporated into national sanitation policies and programmes in an increasing number of countries, including, in 2009, in Liberia, Mali, Niger and Sudan. Elsewhere, such as in Angola, Mozambique and Zambia, CATS operational areas are being expanded on the strength of successes in pilot projects.

Elsewhere UNICEF contributes to the institutional development and capacity building efforts necessary to operationalise policies, such as in Malawi where a new Directorate of Sanitation was established to oversee the 2008 National Sanitation Policy, and in more than a dozen countries in Africa where UNICEF supported a variety of capacity building initiatives for Community Approaches to Total Sanitation (CATS). See Section 3.2 for additional details.

UNICEF upstream engagement in the sector also aims to prioritise sanitation and hygiene components within national WASH programmes. A key strategy is to advocate for the unpacking of sanitation and
hygiene from water within national planning and budget allocation instruments. Data from country offices (Figure 7) indicates the trend is positive in the 60 priority countries (49% of countries in 2008 compared to 59% in 2009), but that some regions are doing much better than others.

Figure 7: Proportion of priority countries with discrete budget lines for sanitation and hygiene in medium-term budget or equivalent, by region and total

UNICEF support for building enabling environment at country level will increasingly be framed by national efforts linked to Sanitation and Water for All, to analyse bottlenecks, strengthen institutions, build capacity, and improve planning and coordination mechanisms. This support will be in coordination with other Sanitation and Water for All partners, and will focus especially on the most off-track countries.

3.2 Hygiene and Sanitation Promotion

Handwashing with soap

UNICEF and partners support to national and global programmes to raise awareness on handwashing with soap reached hundreds of millions of people in 2009. Country offices report that about 67.5 million people were reached through direct handwashing promotion activities in communities while an estimated 288 million were potentially exposed to behaviour change messages through media campaigns.

Directly reaching large numbers of people through face-to-face handwashing promotion in communities always involves support to networks of frontline workers and volunteers. In Nepal’s Hygiene Improvement Project (supported by UNICEF and USAID), for example, over 1.1 million people were reached directly in 2009 through a network of 21,800 trained promoters – including NGO extension workers, Red Cross volunteers, Female Community Health Volunteers and members of Village Development Committees. There are examples from all regions where substantial numbers of people were reached through such networks including Guatemala (50,000), Central African Republic (over 140,000), Mozambique (over 325,000), Sri Lanka (320,000) and Cambodia (102,000).

In many countries UNICEF also uses its extensive, long-term association with national education systems to directly reach children with education on handwashing with soap. For example, in Egypt an estimated five million school children participated in a series of hygiene education exercises through a partnership
with the Egyptian Red Crescent and the Ministry of Education. UNICEF prioritises hygiene education in schools because it represents an opportunity to reach young people who are the most receptive to messages on new behavioural practices and because young people can be effective conduits for such messages within their families and communities (see also Section 3.4 on WASH in Schools).

The large numbers of people estimated to have been exposed to messages through mass media campaigns in 2009 shows that handwashing promotion is increasingly prioritised at national level. This is reinforced by new data gathered by UNICEF country offices showing that the number of programme countries in which there is a national behaviour change communication programme that promotes handwashing with soap has jumped by more than 50 per cent. In priority WASH countries, there has been a more modest but still substantial increase, as illustrated in Figure 8.

This expansion has been driven in part by the Global Handwashing Day (GHD) campaign, which again was celebrated in over 80 countries in 2009. Some of the largest campaigns were in South Asia, such as in India where a month-long campaign culminated in 80 million children in over half a million schools washing their hands with soap before lunch. Countries in other regions also held major events, including a campaign in Ethiopia headlined by marathoner Haile Gebreselassie that involved 500,000 school children, in Morocco where the first ever GHD campaign was held through a partnership with the Ministry of Education and the private sector, in Guinea-Bissau where the GHD was used as an opportunity to launch a three-month campaign on handwashing in schools, and in Nicaragua where over 300,000 people participated in the “Lavaton” mass handwashing campaign.

The GHD is becoming a global phenomenon, with increasing visibility not only in developing countries but also in industrialised countries. The launch of the “Washy washy wa” handwashing dance choreographed by the renowned Japanese dancer Kaiji Moriyama was an internet sensation (including on the UNICEF website, which registered an unprecedented number of hits when the video was posted). There were also events in the United Kingdom (the Golden Poo awards), the United States (a handwashing competition in Washington, DC).

Of course, the number of people “reached” with education campaigns – either through the mass media or directly – is far greater than the number of people who have actually been influenced to sustainably change their handwashing behaviour practices. To estimate progress on actual behavioural change, UNICEF supports a number of monitoring initiatives.

First, UNICEF sponsors studies at country level. For example, a comprehensive evaluation of the five-year Hygiene Improvement Project in Nepal was conducted in 2009 and it found – among other things – that handwashing with soap after defecation increased from 31 per cent to 60 per cent in the project area. A study of handwashing practices within the UNICEF Bangladesh WASH project area (which covers 20 million people) showed a similar increase – from 17 to 30 per cent. However, in both studies the increases

---

3 “Programme countries” are countries in which UNICEF engages in some type of programme support. There were 155 programme countries in 2009. This is different from the number of countries in which there has been some WASH programming (99 countries in 2009), and from the 60 priority WASH countries.
in the number of people who wash their hands at other critical times (before eating or handling food) were more modest, a finding that is being used to modify the design of new programmes. UNICEF sponsored baseline or KAP studies on hygiene behaviour and practice in a number of other countries in 2009 including Bolivia, Central African Republic, Gambia, Mongolia, Paraguay and Southern Sudan.

Due to their expense, it is impossible to carry out such studies regularly over a large number of countries. Thus it is difficult to objectively judge the status and progress on handwashing practices across countries and regions. However, major progress was made in this area in 2009 with the adoption of new standardized proxy handwashing with soap indicators in the MICS and DHS monitoring survey mechanisms, which will begin to yield results as early as 2010 (see Section 8 for more details).

In some situations it is appropriate to include hardware components in handwashing promotion programmes. Examples of this in 2009 include a large pilot in Bangladesh that installed some 14,000 low-cost handwashing devices in selected communities for demonstration and testing. Household handwashing facilities were also piloted in Cambodia, Mali, Mauritania, Rwanda, Togo, Uganda and elsewhere, usually in conjunction with sanitation programmes.

The rising global concern over the H1N1 pandemic in 2009 once again underlined the importance of improving handwashing behaviour. As was the case previously with the avian influenza and SARS epidemics, decision makers prioritized handwashing and released additional funding for campaigns. The importance of handwashing was also highlighted by the media. Many of the large handwashing media campaigns sponsored by UNICEF and its partners linked diarrhoea prevention and H1N1-prevention, including the campaigns in China, Egypt and Madagascar. In Bolivia, a 10 to 15 per cent drop in the rate of incidence of acute diarrhoeal diseases is being attributed to the national H1N1 campaign by national epidemiological authorities.

**Community Approaches to Total Sanitation (CATS)**

In 2009 UNICEF continued to align its programme of support for sanitation towards the goal of eliminating open defecation through interventions that are rooted in community demand and leadership, focused on behaviour and social change, and committed to local innovation.

A major part of this effort is the expansion of support to country-level programmes based on the CATS model. In 2009, UNICEF supported pilot and/or scaled-up CATS programmes in a total of 37 countries, up from 20 countries in 2008. In additional countries UNICEF advocated for the approach, or engaged in planning and training activities. As shown in Figure 10, the bulk of the new CATS countries are in the West and Central Africa region.

---

4 See video at: http://www.unicef.org/wash/japan_51424.html
5 Community Approaches to Total Sanitation (CATS) is an umbrella term used by UNICEF that encompasses a variety of community- and demand-led approaches, including Community Led Total Sanitation (CLTS), Total Sanitation, School-Led Total Sanitation (SLTS) and related approaches.
Thirty-three of the 37 countries are WASH priority countries. Thus, for the first time more than half of priority countries now employ the CATS model. In many of these countries the projects based on the model are moving beyond the pilot stage, and in some the model is becoming the national standard.

In Niger, for example, government has adopted a CATS model (CLTS) as its operational strategy for sanitation and constituted an inter-ministerial steering committee (co-chaired by UNICEF). In Timor-Leste, the national sanitation policy is being revised to incorporate CLTS (through a multi-stakeholder policy dialogue process, funded by AusAID through UNICEF). And in Ethiopia the Ministry of Health has set up a national taskforce to guide a process that is expected to result in CLTS being made the cornerstone of the new fourth Health Sector Development Programme.

But modifying policies, plans and resource allocations to promote the expansion of CATS nationally is not a process that happens overnight. A good example of this is Cambodia, home to an early and successful pilot CATS programme. There, UNICEF – working with the Ministry of Rural Development, the Institute of Development Studies and other partners – continues to support a process that is formulating a new national sanitation strategy centred around CATS principles (expected in 2010). The process is also defining “rules of engagement” to be used by stakeholders to ensure a more cohesive programming approach, particularly around key issues such as the use of subsidies, and coordinated implementation arrangements that strengthen national systems.

However, the potential of the CATS approach to reduce open defecation at scale is increasingly documented through studies by partners (such as WaterAid’s recent three country study) as well as by UNICEF (e.g. a 2009 evaluation of a pilot project in Ghana; a three-country comparative review in

---

6 Countries with ongoing pilot or at-scale programmes. Does not include additional countries in which UNICEF is engaged only in advocacy or training.

7 Sustainability and equity aspects of total sanitation programmes: A study of recent WaterAid-supported programmes in three countries, WaterAid, 2009.
ESAR; and a package of case studies from four countries\(^8\)). A further illustration of the potential of CATS is the growing number of people now living in open defecation-free (ODF) communities in UNICEF-supported project areas, such as in Mozambique (400,000 people in new ODF communities in 2009), Pakistan (315,000), Zambia (160,000) and Mauritania (30,000).

School-Led Total Sanitation (SLTS) places children at the centre of catalyzing total sanitation in schools, as well as in homes and communities. Variations on the approach are supported by UNICEF in an increasing number of countries, including Nepal, Sierra Leone, Eritrea and Cote d’Ivoire. The longest experience is in Nepal where the SLTS initiative has – to date – reached over 90,000 households and 300 schools and has resulted in one thousand new ODF communities.

In 2009 UNICEF ramped up efforts to build capacity for CATS programming, both in-house and amongst partners. This included a series of three WebEx training sessions for staff from five of UNICEF’s six regions (see Section 2.3 for additional information). At country and regional level, UNICEF worked with the Institute of Development Studies and other resource agencies to continue to build capacity and raise awareness amongst stakeholders. Examples in 2009 include a regional workshop in Cambodia, and a variety of awareness-raising workshops (mainly with government and NGO partners) and training sessions for parishioners in Eritrea, Mali, Sierra Leone, Togo and many other countries.

Except in emergency situations and for programmes that build sanitation facilities in schools or health posts, UNICEF is less and less involved in directly supporting the construction of toilets and latrines. Nevertheless, the number of people that have gained access to sanitation facilities through UNICEF-supported programmes remains substantial: 8.4 million people through development programmes and 5.5 million through emergency programmes. As CATS-based programmes expand UNICEF will look towards more appropriate indicators of progress for sanitation based on the number of people living in sustained ODF communities.

Close partnerships with Plan International, WaterAid and other agencies and institutions with expertise and on-the-ground experience in CATS is an important success factor. Funds provided by the UNICEF WASH programme’s thematic funding partners (the Governments of Australia and Norway) help to support new CLTS initiatives in priority countries in the West and Central Africa region (WCAR) that are more difficult to fund, including Guinea-Bissau, Mauritania and Mali.

### 3.3 Water Supply and Water Quality

Contributing to efforts to meet – and exceed – the MDG water target is an important component of the UNICEF WASH global programme. In 2009, UNICEF-supported development programmes helped 8.3 million people gain access to an improved water source. An additional 11.9 million people benefited from emergency interventions. Over the last three years, an estimated 49.5 million benefited from combined emergency and development programmes.

These figures show that UNICEF continues to be a major player in the area of water supply. In some regions, estimates indicate that UNICEF-supported programmes directly account for a substantial proportion of the total number of people who gained access to water supplies. This is especially the case in rural areas in parts of Sub-Saharan Africa, where UNICEF interventions account for the majority of water sources constructed.\(^9\)

\(^8\)Community Approaches to Total Sanitation in the UNICEF Policy and Programming in Practice Field Notes series (in press).

\(^9\)Based on comparisons of estimates of average UNICEF beneficiaries from development programmes, to JMP estimates of total numbers of people gaining access to improved water supplies.
However, UNICEF’s budgets continue to be small compared to national budgets for water supply, especially in regions outside of Sub-Saharan Africa. Thus UNICEF’s direct contribution to service delivery is relatively modest: more important – ultimately – are initiatives that promote sector reform, that build institutional capacity, leverage resources and develop improved technologies and methodologies.

Two continuing areas of focus for this kind of upstream engagement are the sustainability of water sources and their cost effectiveness.

**Sustainability and cost effectiveness**

UNICEF continued to promote improvements in water source sustainability in 2009, focusing especially on initiatives in Sub-Saharan Africa where system breakdown rates are high. As discussed in last year’s report, the Government of Netherlands-supported WASH programme in Eastern and Southern Africa incorporates sustainability checks into project design. In 2009 major sustainability check exercises were conducted in two countries by independent consulting firms on a random sample basis. The sustainability checks go beyond establishing whether or not the water point is operational: using a set of institutional, social, technical and financial indicators they also assess the sustainability environment to pinpoint problem areas. The 2009 check in Mozambique showed that the sustainability of water points was in the poor to medium range, due mainly to low levels of community contribution and systemic problems with the spare parts supply chain. The results have prompted a joint UNICEF-government re-assessment of existing water point management and maintenance systems. Results in Malawi were better (97% of handpumps were operational), but the check also pointed to potential problems in the same areas. The sustainability check mechanism is being expanded both within countries (Mozambique is now using it in other parts of the UNICEF WASH programme) and to other countries in the region.

The African Handpump Marketing Management Study was completed in 2009. The study – sponsored by UNICEF and RWSN (Rural Water Supply Network) – surveyed handpump procurement trends, costs, and quality control practices in the context of improving supply chains and – ultimately – increasing the sustainability of water points in Africa. The study provided, for the first time, an estimate of the size of the African handpump market and the extent to which handpumps from India and Europe have been exported to the continent in the past two years. The report highlighted the negative impact the bulk central procurement of handpumps by international agencies has on the development of a vibrant, sustainable local procurement system through the private sector, leading to consequent problems for maintaining adequate supply chains for spare parts, and, hence, the ultimate breakdown of handpumps in the field. Recommendations were made on how to improve quality assurance of local procurement, on bundling handpump procurement and maintenance contracts, and on supporting supply chains. As a result of this study UNICEF is reforming its own handpump procurement practices, which is an important first step since UNICEF is a major buyer. The study results are also being used to advocate for larger-scale reforms.

---

11 See last year’s annual report for examples of sustainability criteria used in the sustainability checks.
12 UNICEF procurement accounts for about 20 per cent of all the handpumps exported to Africa from India.
The high cost of borehole drilling continues to be a major constraint in achieving the MDG water target in Sub-Saharan Africa, the only region not on track to meet the MDG water target. UNICEF addressed this issue through a number of related activities in 2009.

In a major initiative, UNICEF largely completed a package of work with two specialist agencies (Enterprise Works/VITA and Practica) and local partners in 12 African countries to promote manual borehole drilling as a cost-effective alternative to machine drilling. The package includes a set of hydrogeological charts mapping manual drilling potential; a set of fact sheets, case studies and videos for advocacy; and a library of manuals targeted at local manual drilling companies. In many of the 12 countries the packages are already used in campaigns to advocate for more resources for manual drilling as well as to promote the professionalization of the national manual drilling industry. There are early indications of significant new donor funds being directed towards manual drilling in Senegal and DR Congo.

Work continued with RWSN, USAID and other partners on the development of a comprehensive Code of Practice for cost-effective boreholes in 2009. This ongoing endeavour aims to reduce the cost of boreholes in Africa while improving quality and promoting vibrant and professional national drilling sectors. As part of this process, three country studies were carried out in 2009 (Zambia, Burkina Faso and Ghana) and a national consultation on cost effective drilling was held in Sudan. These country-level activities are designed to inform the final formulation of the overall Code of Practice, while distilling lessons and making recommendations for improved national drilling protocols. Another planned output from this exercise is a UNICEF-specific formulation of the Code of Practice aimed at standardising and improving internal procedures and practices related to the management of drilling programmes. In several countries UNICEF has already taken steps to lower costs, such as in Sudan where a decision has been made to prioritise borehole rehabilitation over new borehole construction and in Zambia with the introduction of clustered tendering.

**Guinea Worm**

UNICEF contributes to all facets of guinea worm eradication efforts in countries – including coordination, case containment and reporting – but the main contribution is in the area of water supply. In both endemic and recently endemic countries, UNICEF supports the construction of safe water points that provide a reliable alternative to surface water sources that harbour snail hosts. In 2009, for example, UNICEF constructed or rehabilitated over 100 water points in Mali and 150 in Ghana. Over the last decade, thousands of sources have been constructed, notably in Nigeria and Southern Sudan.

The guinea worm effort is leading to spin-offs in other sectoral areas. In Cote d’Ivoire, for example, UNICEF and partners are currently studying the possibility of using the national guinea worm prevention network of community health officers to promote household water treatment. Similar work is already underway in Ghana.
Water Quality

In addition to work in the area of HWTS (see below), UNICEF continued to work with governments and other partners on related water quality issues including water safety planning, surveillance and water quality mitigation programmes.

UNICEF worked with government partners on formulating national standards and protocols related to water quality in several countries in 2009, including in Nigeria, Pakistan and Sudan. In India, new national guidelines on water quality monitoring were issued based on a model developed in West Bengal with UNICEF assistance. In these and other countries, UNICEF helps to build water quality surveillance capacity by training technicians, equipping laboratories, and promoting community and household-level quality testing.

In several countries – mainly in East Asia and South Asia – UNICEF is promoting water safety planning approaches to sustainably improve drinking water quality. In India, for example, UNICEF has helped to establish village-level water safety planning systems in seven states. In Viet Nam, an evaluation of the “catchment to household” water safety planning pilot project in Thua Thein Hue showed substantial results in the reduction of water-related diseases, and the model is now being disseminated nationally.

Arsenic mitigation continues to be an important part the UNICEF WASH programmes in countries affected by contamination. In 2009 UNICEF supported activities in nine countries, including testing, mapping, communication campaigns, arsenic removal and/or source substitution. The largest programme by far is in Bangladesh where, as well as contributing to the overall national arsenic mitigation programme, UNICEF carried out the Deployment of Arsenic Removal Technologies (DART) project that installed and monitored 18,000 household-level filters and 53 community plants. In East Asia, the 2008 AusAID-supported arsenic assessment project in Mekong countries has been the catalyst for various outputs. In Nepal, earlier work on arsenic has resulted in a new focus on water quality in general in the country, with the establishment of a multi-stakeholder National Water Quality Steering Committee.

Data from the most comprehensive survey of arsenic contamination ever undertaken in Bangladesh was published in 2009 (the survey was part of MICS – see Section 8). The data showed that significant progress has been made over the last decade: the number of people exposed to arsenic levels greater than 50 parts per billion (the national standard) decreased from 35 million to 20 million (a 42% reduction) during a period when the estimated population increased by about 20 per cent.\footnote{Note that the earlier study under comparison is the 1998/99 DPHE/BGS/MML survey that measured arsenic at the source, whereas the new study measured arsenic at point of use: this was taken into account in the comparative analysis.} However, the fact that 20 million people (about 12.6% of the population) continue to be exposed to arsenic at levels above 50 ppb – and even larger numbers at the more exacting WHO guideline value of 10 ppb – underlines the continuing massive scale of the problem and of the challenges still facing the government of Bangladesh and its partners.

Household Water Treatment and Safe Storage (HWTS)

UNICEF accelerated efforts to promote HWTS in 2009, expanding the scope of its interventions and working in an increasing number of countries.

Capacity building was a key component of the UNICEF effort. A new HWTS training module was developed as part of UNICEF’s overall WebEx distance education programme (see Section 2.3), based on a consultation with a group of experienced HWTS agencies.\footnote{Including the Centers for Disease Control and Prevention (CDC), London School of Hygiene & Tropical Medicine (LSHTM), Massachusetts Institute of Technology (MIT), Population Services International (PSI),}
level training programmes in Afghanistan, Cambodia, Kenya and other countries. In Nepal, over 16,000 frontline workers, NGO promoters, and PTA members were trained to promote HWTS options.

UNICEF helped to launch new HWTS programmes in several countries in 2009. These include major new national programmes (e.g. in Guinea and Liberia) and new pilot programmes (such as in Mali where UNICEF is piloting a decentralised low-cost household chlorine manufacture and distribution system, and in LAC countries where locally-produced ceramic filters are being introduced to indigenous communities). UNICEF is also working with partners to expand existing programmes, including in Cambodia, Malawi and Nepal. And in several regions, HWTS is part of WASH in Schools support packages.

In UNICEF-supported programmes HWTS is always an integral part of the overall WASH package of interventions. In Nepal, for example, the UNICEF/USAID large-scale pilot Hygiene Improvement Project combines handwashing with soap and HWTS promotion through a PPP framework for maximum impact towards the goal of diarrhoeal disease reduction.\(^\text{15}\) HWTS is also increasingly seen as an integral part of UNICEF’s broader package of high-impact interventions for young child survival and development.

In DR Congo, Tanzania, Zimbabwe and other countries, HWTS is being introduced as a new tool to complement existing cholera prevention and response campaigns. And in both Angola and Guinea, dropping morbidity and mortality rates has been partially attributed to such campaigns. Cholera prevention and response is also seen as an entry point for the introduction of HWTS on a wider scale.

As discussed in Section 2.4, an attempt to quantify the number of people reached through UNICEF-supported HWTS activities was carried out in 2009. The estimated figure is 5.6 million people, most through the distribution and/or sale of chlorine-based products, both through development programmes and in emergencies (see Table 5).

HWTS is still a relatively new area for UNICEF, and working with partners is especially important. Consequently UNICEF continues to collaborate with WHO in the International Network to Promote HWTS, to participate in key global and regional HWTS forums, to seek the advice of academic institutions and specialist agencies, and – most importantly – to work closely with HWTS agencies in the field.

---

SANDEC, USAID, University of North Carolina (UNC), Centre for Affordable Water and Sanitation Technology (CAWST), UNICEF and WHO.

\(^\text{15}\) A 2009 evaluation of this pilot showed a marked increase amongst target populations in awareness of HWTS methodologies but a more modest increase in the use in households (although still double the baseline figure). Results from the evaluation are being used to inform the design of new HWTS programmes within and beyond Nepal.
3.4 WASH in Schools

Water, sanitation and hygiene activities in schools continue to be a significant part of the UNICEF WASH programme. In 2009, UNICEF supported school WASH activities in 89 countries, a slight increase over the previous few years but significantly more than the 47 countries in 2002 (Figure 13). Programmes range in scope from large-scale integrated endeavours in some countries to smaller catalytic interventions in others, depending on the programming environment. In all cases, interventions are designed to improve health, foster learning and enable children to participate as agents of change for their siblings, their parents and their communities.

In a major new initiative, UNICEF took a series of steps with key partners to develop a new global advocacy campaign for WASH in Schools in 2009. The “Call to Action for WASH in Schools” campaign is designed to attract political and public attention to the issue, and will be launched at a high-profile event in 2010.

Strategies, Standards and Partnerships

UNICEF and WHO published global guidelines on standards for WASH in schools in 2009. The guidelines focus on schools in low-cost settings, and are designed to assist policy makers in the development of national standards. This represents a major advance: drawing on the most recent evidence, the document provides comprehensive and state-of-the art guidance on key considerations for the development of standards, monitoring systems and appropriate policy frameworks.

At country level UNICEF supported the formulation of new national standards for child friendly WASH facilities in schools in DPR Korea, Gambia, Pakistan, Tajikistan, and elsewhere in 2009. In Thailand, the child-friendly toilet design developed through a UNICEF project was formally adopted as the national standard, and funds were allocated for replication nationally. Similarly, technical standards developed through UNICEF-supported pilot initiatives have been replicated by government and partners in Afghanistan and China.

In several countries UNICEF advocacy and support has led to the adoption of WASH in Schools principles and strategies within national education policy and planning instruments. In Ghana, for example, the new comprehensive School Health Education Policy includes WASH components; in Bangladesh elements from the UNICEF-supported WASH in Schools programme have been incorporated into the national Education SWAp; and in Egypt the assessment of a UNICEF-supported pilot has led to the endorsement of key principles by the Ministry of Education and the inclusion of WASH criteria into the national school accreditation and quality assurance mechanism.

The new global guidelines include indicators to ensure that WASH facilities in schools are accessible to children with disabilities. UNICEF is increasingly working with partners to ensure that national standards and programmes also take this into account. In some countries – including Ghana and Nepal – standards have been adjusted, the India programme produced a design manual, and in Tanzania UNICEF has entered into a partnership with a network of disability rights groups to help ensure accessibility issues are considered in the WASH in Schools strategic design process.
Steps were taken to broaden the partnership base for WASH in Schools in 2009. Globally, the Call to Action campaign is already drawing in important new partners. One example is the education philanthropy agency Dubai Cares, which has become a strong advocacy partner and has committed significant funding to UNICEF-supported WASH in Schools programmes starting in Mali, Indonesia and Sierra Leone. Thematic funding provided by the Governments of Australia and Norway are instrumental for catalytic interventions in smaller programmes such as in Cameroon, Guatemala and Guinea Bissau.

Steps have also been made to deepen UNICEF’s relationship with faith-based groups both globally (e.g. through a new partnership with the Alliance for Religions and Conservation, an umbrella group encompassing 11 faiths) and nationally (e.g. in Indonesia where the Ministry of Religious Affairs became a core partner in the UNICEF-supported national WASH in Schools coordination committee). Given the fact that over half of schools world-wide are run by faith-based groups, such partnerships are of key importance.

Expanding partnerships at country level is also key for success. The AusAID-funded WASH in Schools programme in Tanzania, for example, now includes four ministries, two universities and several NGOs.

**Scaling Up**

Funding for WASH facilities and programmes in schools is a perennial problem, but advances were made in 2009. In several countries, including Bhutan, Brazil, China, Thailand and Zambia, UNICEF advocacy linked to pilot projects and/or national surveys helped leverage new government funding for school WASH facility construction. In Nepal, the allocation for child- and gender-friendly WASH facilities in schools was increased by $9 million in 2009.

According to data gathered by UNICEF country offices, there has been only a slight increase in the percentage of schools with facilities in WASH priority countries from 2008. Fewer than half of schools in priority countries have adequate drinking water facilities, and just over 40 per cent have adequate sanitation facilities (Figure 14). These percentages vary significantly from region to region, with the lowest coverage rates in the West and Central Africa region.

*Figure 14: Water and sanitation facilities in priority WASH countries*

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Facilities</td>
<td>46%</td>
<td>47%</td>
</tr>
<tr>
<td>Sanitation Facilities</td>
<td>37%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Percentage of schools with adequate water facilities, average (data from 34 countries)

Percentage of schools with adequate sanitation facilities, average (data from 28 countries)
The “H” in WASH in Schools is just as big a challenge as is the construction of toilets and water points. Children do not wash their hands frequently enough, and even fewer use soap (two recent studies in Kenya and India both found that less than two per cent of school children wash their hands with soap). UNICEF programmes tackle this through support to hygiene education programmes, and through measures that support systems for maintaining reliable supplies of soap in schools. A related challenge is ensuring that girls are knowledgeable about menstrual management and that schools are properly equipped (see Section 7 for examples).

The global dataset on WASH facilities in schools remains weak. Just over half of the 60 priority countries have data on water and under half have data on sanitation (the “n” figures in the above charts). And this data is still very basic: to obtain a reasonable picture of the situation in schools more information on WASH is required such as pupil-to-toilet ratios, existence of handwashing facilities, privacy of girls toilets, breakdown rates and other indicators.

To address this information gap, UNICEF is supporting new initiatives to include standard WASH indicators in EMIS (Education Management Information Systems) and to conduct national surveys. Part of this effort was the development of a comprehensive WASH in Schools monitoring package to guide the development of improved national monitoring systems for countries in East Asia and the Pacific. Elsewhere UNICEF supported comprehensive new surveys in Mali, Belize and Djibouti.

4 Emergency Coordination and Response

Water, sanitation and hygiene are critical in the initial stages of an emergency when people – especially children – are highly susceptible to illness and death from diarrhoea and other WASH-related diseases. WASH is also a key pillar within programmes to support countries in transition and recovery from emergency situations, and in fragile countries experiencing long-term emergency conditions.

There are two key aspects to UNICEF’s WASH response to emergencies. One is the role UNICEF plays as the lead agency of the IASC WASH Cluster. The other is as a responding agency, contributing to protect and restore water and sanitation supplies, and promote safe hygiene practices in emergencies. Additionally, UNICEF works with a wide range of partners to build the capacity of countries to better prepare for emergencies and to improve the effectiveness of response systems. The importance of this effort is reflected by the fact that 40 per cent of overall WASH expenditure in 2009 was on emergency preparedness and response activities.16

16 This percentage is actually down from previous years (it has been over 50% in some years, especially after the Asian Tsunami), but is expected to again rise in the wake of the January 2010 earthquake in Haiti.
4.1 Emergency Coordination, Preparedness and Response

*Coordination*

As the lead agency of the IASC WASH Cluster, UNICEF continued to facilitate the shift of the cluster focus from global to country level through the rollout of a variety of tools and processes. At the top of the list are outputs from the set of capacity building projects described in Section 4.2 below. Other products range from detailed technical reference material, reviews and assessments, and tools and guidance on cluster-related processes. A significant achievement was the development of a cluster governance structure as part of an effort to enhance the sustainability of the maturing cluster. Also in 2009 the Cluster finalised a hygiene promotion package, a set of information management tools, as well as a new set of tools to map inter-cluster roles and responsibilities at field level for strengthening inter-cluster coordination. See Table 6 for the full set of WASH Cluster projects.

The cluster approach is now the default coordination mechanism for response in humanitarian emergencies at the country level. Since 2005 WASH Clusters have been activated in a total of 37 countries (Table 7). This includes various types of cluster arrangements from the first pilot countries, through clusters established in countries with ongoing emergencies, to clusters in sudden onset emergency situations. In some cases full-time dedicated cluster coordinators were put in place, in other cases arrangements were more ad hoc. But as an increasing number of assessments show, the cluster approach has significantly improved humanitarian response in the sector, primarily by improving predictability and accountability in international responses to humanitarian emergencies.

*Preparedness*

In 2009 UNICEF also continued to strengthen its own preparedness to respond in emergencies. The revision of emergency supply list for the WASH, health and nutrition sectors was finalized, and stocks to meet the needs of 250,000 people for the first two weeks of a humanitarian crisis were pre-positioned for rapid deployment. The capacity of UNICEF WASH staff to effectively manage WASH in emergencies was strengthened through a variety of training initiatives, both internal and via Cluster processes (see Section 4.2). Internal rosters were strengthened accordingly.

UNICEF’s network of regional emergency WASH advisors (supported by UNICEF emergency officers at the global level) that was established in 2007 has played an increasingly important role. The advisors provide support for preparedness and response planning, for capacity building and for response: regional advisors were deployed to nine emergencies in 2009.

UNICEF sponsors and/or participates in a wide range of studies to build evidence for improved preparedness and response programmes. These range from evaluations of specific humanitarian response efforts (including the evaluation of the Myanmar cyclone Nargis response, and an evaluation of response to Hurricane Felix in Nicaragua), structured learning exercises (including a collection of lessons learned

---

**Table 6: Global WASH Cluster projects**

<table>
<thead>
<tr>
<th>Project 1</th>
<th>Cluster Co-ordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 2</td>
<td>Information Management</td>
</tr>
<tr>
<td>Project 3</td>
<td>Hygiene Promotion</td>
</tr>
<tr>
<td>Project 4</td>
<td>Capacity Mapping</td>
</tr>
<tr>
<td>Project 5</td>
<td>Emergency WASH Materials</td>
</tr>
<tr>
<td>Project 6</td>
<td>Training for Capacity Building</td>
</tr>
<tr>
<td>Project 7</td>
<td>Learning</td>
</tr>
<tr>
<td>Project 8 (a)</td>
<td>Right to WatSan in Emergencies</td>
</tr>
<tr>
<td>Project 8 (b)</td>
<td>Advocacy</td>
</tr>
<tr>
<td>Project 8 (c)</td>
<td>Resource Mobilisation</td>
</tr>
<tr>
<td>Project 9</td>
<td>Technical Support Services</td>
</tr>
<tr>
<td>Project 10</td>
<td>Best Practice and Guidance</td>
</tr>
<tr>
<td>Project 11</td>
<td>Environment</td>
</tr>
<tr>
<td>Project 12</td>
<td>Early Recovery</td>
</tr>
<tr>
<td>Project 13</td>
<td>Disaster Risk Reduction</td>
</tr>
<tr>
<td>Project 14</td>
<td>Accountability</td>
</tr>
<tr>
<td>Project 15</td>
<td>Rapid Response Team</td>
</tr>
</tbody>
</table>
from WASH Cluster implementation\textsuperscript{17}) and specific studies such as a study on cholera mortality mapping in Zimbabwe, and research on the efficacy of Point-of-Use water treatment (also known as HWTS) in emergencies (conducted together with Oxfam and the London School of Hygiene and Tropical Medicine).

**Response**

UNICEF interventions benefited millions of children and their families in emergency situations in 2009. An estimated total of 11.9 million people benefited from interventions that provided new, rehabilitated or temporary water supplies, and 5.5 million from the construction of sanitation facilities. Interventions were carried out in countries around the world, including in major sudden onset emergencies, in long-term emergency situations and in smaller localised crises. In larger emergencies UNICEF interventions were carried out within an activated WASH Cluster, elsewhere interventions were carried out with local partners within the country programme of cooperation.

UNICEF’s role as Cluster Lead for WASH and its presence at country level in the sector made it instrumental in the successful responses to major outbreaks of cholera and acute watery diarrhoea in 2009, including in Ethiopia, Kenya and in Zimbabwe where over 2.3 million people in the most exposed areas were reached. Ongoing support for cholera prevention also helped to avert crises, such as in Guinea-Bissau where no cholera cases were detected in 2009 after a major outbreak in 2008.

Other major interventions in 2009 included the response to ongoing emergency and reconstruction efforts in north and south Sudan; to conflicts in several countries (including Pakistan, Sri Lanka and Yemen); to natural disasters (such as Typhoon Ketsana in South East Asia and Indonesia’s 2009 earthquake in West Sumatra); to ongoing emergencies in the Horn of Africa, Sudan, Afghanistan and elsewhere; and to recovery and reconstruction efforts in a number of countries including China, Honduras and Myanmar.

Support to water supply continues to consume the highest proportion of financial resources in emergencies. This is because water infrastructure is usually a high cost intervention, as is the distribution and deployment of purification chemicals and filters. Trucking is especially expensive on a litre-per-litre basis, but in many situations it is simply the only viable option. In Zimbabwe, for example, an

\begin{table}
\centering
\caption{Countries in which WASH Clusters have been activated, 2005 to end 2009\textsuperscript{18}}
\begin{tabular}{|l|l|l|}
\hline
Afghanistan & Haiti & Occup. Palestine \\
Bangladesh & Honduras & Pakistan \\
Burundi & Indonesia & Philippines \\
Central African Rep. & Iraq & Samoa \\
Chad & Kenya & Somalia \\
Colombia & Lao PDR & Sri Lanka \\
Cote d'Ivoire & Lebanon & Sudan \\
DR Congo & Liberia & Tajikistan \\
Dominican Republic & Madagascar & Uganda \\
El Salvador & Mozambique & Yemen \\
Ethiopia & Myanmar & Zimbabwe \\
Georgia & Nepal & \\
Guinea & Niger & \\
\hline
\end{tabular}
\end{table}

\begin{table}
\centering
\caption{Countries in which UNICEF emergency expenditure was greater than $1 million in 2009}
\begin{tabular}{|l|l|}
\hline
Afghanistan & Madagascar \\
Burundi & Myanmar \\
Chad & Occup. Palestine \\
China & Pakistan \\
DPR Korea & Philippines \\
DR Congo & Somalia \\
Eritrea & Sri Lanka \\
Ethiopia & Sudan \\
Haiti & Uganda \\
Honduras & Yemen \\
Iraq & \\
Lebanon & Zimbabwe \\
\hline
\end{tabular}
\end{table}

\textsuperscript{17} Implementation of the WASH Cluster Approach: Good Practice and Lessons Learned. WASH Cluster Learning Project (Louise Boughen and Henri LeTurque), 2009.

\textsuperscript{18} Includes all types of cluster arrangements, including pilots. In some countries (Indonesia, Philippines)WASH clusters have been activated on more than one occasion.
estimated one million people were reached with water trucking during the epidemic. In Somalia, water was tankered to over half a million conflict- and drought-affected people for up to five months, and in north-eastern Afghanistan over 200,000 were reached.

At least as important, but usually not nearly as expensive, are sanitation and hygiene interventions. The delivery and installation of emergency toilet facilities in IDP camps in Sri Lanka, for example, was a critical intervention for the prevention of faecal-oral disease, as were similar interventions in Afghanistan, DR Congo and many other countries. Hygiene promotion is always part of the delivery package, either together with infrastructure inputs or as a stand-alone intervention. Increasingly, HWTS products (purification chemicals or filters) and hygiene promotion are “delivered” together. And any sanitation infrastructure construction programme is accompanied by hygiene education.

4.2 Emergency WASH Capacity Building

Evidence shows that support to capacity development for emergency preparedness and response is a key programmatic intervention for fulfilling the CCCs and for contributing to broader efforts for effective response and recovery. Consequently, UNICEF strives to prioritise capacity building, even though this is sometimes a challenge in an environment where continuing crises can easily draw attention and efforts away from such efforts.

A capacity building highlight in 2009 was the finalisation and launch of the WASH in Emergencies training programme for UNICEF WASH staff. Developed in 2008 and early 2009, the five-day course focuses on UNICEF responsibilities for WASH in emergencies, its role in implementing the cluster approach with particular attention on the differentiation between sectoral obligations and the UNICEF-specific CCCs. The course is also designed to better integrate disaster risk reduction into regular programmes of support and promote better linkages between development and humanitarian activities. In 2009 staff from the ESAR, South Asia, and EAP regions representing approximately 25 per cent of all UNICEF WASH staff took the course. Course materials will be translated in 2010 and the remaining UNICEF staff will be covered by the end of 2011. The course will then switch to a maintenance mode to ensure new staff are trained.

As global cluster lead, UNICEF also continued to provide extensive support for the WASH Cluster training for capacity building project. Phase I of the project – now completed – included a detailed learning needs assessment, the development of technical training materials, the production of a Cluster Coordination handbook, and the training of WASH professionals from a variety of agencies. In 2009 staff from the ESAR, South Asia, and EAP regions representing approximately 25 per cent of all UNICEF WASH staff took the course. Course materials will be translated in 2010 and the remaining UNICEF staff will be covered by the end of 2011. The course will then switch to a maintenance mode to ensure new staff are trained.

The related capacity mapping project, which developed tools to help ensure operational support during emergency response, was also concluded in 2009. The project outputs included pre-emergency and in-emergency national mapping tools as well as the results of a global capacity mapping survey.19

---

19 See the Training for Capacity Building Project page on the humanitarianreform.org site for links to all project outputs: http://www.humanitarianreform.org/Default.aspx?tabid=346

20 See the Capacity Mapping Project page on the humanitarianreform.org site for links to these outputs: http://www.humanitarianreform.org/Default.aspx?tabid=344
In addition to these efforts, UNICEF held a number of country- and regional-level training programmes for both staff and partners. For example, UNICEF with Oxfam developed and conducted a four-day cholera preparedness and response training for WASH cluster partners in Kenya, Malawi, Uganda and Zambia. In China, UNICEF trained over 4,600 technicians on systems operation and hygiene promotion as part of the recovery programme from the 2008 Wenchuan earthquake. And in a number of African countries – including Djibouti, Togo and Uganda – UNICEF sponsored WASH emergency and preparedness courses for partners.

Another key component of the global effort to respond effectively in emergencies is capacity for rapid response during the initial phases of a crisis. This capacity has been boosted substantially through the establishment of the multi-agency Rapid Response Team (RRT). Launched in late 2008 as a pilot, the RRT is composed of three professionals chosen for their complementary skill sets and experience who are available within 48 hours of the onset of an emergency. The team members are currently provided by Action contre la Faim (ACF), CARE and Oxfam under a standby arrangement with UNICEF. In 2009, the RRT was deployed nine times, in Asia, Africa, the Middle East and the Americas. An evaluation of the pilot in late 2009 endorsed the RRT concept and strongly recommended its continuation. New funding has been secured to mid 2010.

Use of the standby partnership arrangement to improve capacity was expanded in 2009. A total of 43 WASH professionals from standby partners were in the field supporting a variety of UNICEF humanitarian programmes (Figure 15). The professionals were seconded from 11 partner organizations and deployed to 20 different locations. Functions ranged from coordination and management (including Cluster Coordinator positions) to specialised technical positions in the areas of hydraulic design, water treatment, solid waste management and hygiene promotion.

5 Progress in non-priority Countries

Once again in 2009, the bulk of UNICEF resources for WASH programming were used in WASH priority countries, and in countries in emergencies. However, some support continued to be provided in non-priority countries. WASH activities were clustered mainly within the categories of sector monitoring, water quality and environmental programming, hygiene promotion, WASH in Schools, emergency preparedness planning, and WASH activities in support of overall country programme priorities (such as integrated development initiatives).

21 Action contre la Faim (ACF), CANADEM, CARE, Irish Aid, the Swedish Civil Contingencies Agency (MSB), Norwegian Refugee Council (NRC), OXFAM, REDR Australia, the Swiss Agency for Development and Cooperation (SDC), the Swedish Rescue Services Agency (SRSA) and Veolia.
Activities within this latter category are common in countries in the Americas where WASH is often a component of area-based programmes for indigenous communities. Paraguay is one example of this, where a UNICEF-piloted culturally-sensitive community water and sanitation programming model has been adopted by government for work with indigenous communities in the Chaco region. Similar initiatives that support WASH in marginalized regions are underway in Ecuador, Panama and elsewhere.

UNICEF’s organizational capacity in the area of water quality was utilized in several non-priority countries in 2009. The type of support varies. In several countries UNICEF supported water quality surveys (e.g. in Bhutan and the occupied Palestinian territories), elsewhere it helped to strengthen water quality monitoring and surveillance systems (Maldives, Nicaragua, DPR Korea) and provided advise on the development of national water quality policies and standards (Bolivia, Comoros, Honduras).

UNICEF’s expanding programme of advocacy and support for HWTS extends beyond priority countries. In Mongolia, for example, HWTS is the entry point for the UNICEF-supported diarrhoeal disease reduction programme. In Honduras, UNICEF works with NGO partners to promote bio-sand filters and solar disinfection (SODIS). Other countries where UNICEF works in the this area include Djibouti, Bolivia and in Gambia where a 2009 survey showed an 18 per cent increase from 2006 in the number of people employing UNICEF-promoted household treatment technologies.

WASH in Schools is another category of programming where UNICEF is active around the world. Examples of progress in 2009 include the development of new standards (DPR Korea, Gambia), successful advocacy for increased funding (Bhutan, Thailand), and new initiatives to monitor facilities and programmes in schools (Djibouti, Belize). Elsewhere, schools are used as the entry point for national handwashing promotion activities.

The most widespread activity supported by UNICEF outside of the 60 priority countries is the promotion of handwashing with soap. In most cases this is now conducted as part of Global Handwashing Day, which is quickly becoming part of the UNICEF toolbox even in countries with no other WASH-related programmes. More than 20 non-priority countries celebrated GHD in 2009, in all of the UNICEF regions.
6 WASH and the Environment

In many countries, the freshwater environment is under threat from a variety of hazards including urbanization, industrialization, intensification of agriculture, population growth and – increasingly – from climate change. In these countries over-exploitation is depleting water sources while at the same time changing weather patterns are making water supplies less reliable.

UNICEF is taking steps to adapt its WASH programmes to this changing scenario. Country programmes are being encouraged to place greater emphasis on the sustainable management of water resources, as well as on the development of adaptation strategies to help communities cope with the effects of environmental degradation and climate change.

At the global level, a set of resource material is being developed to build staff capacity in the area of water resources management and climate change adaptation. This includes a concept paper and a new training package, both of which were completed in 2009 (the training package will be used in 2010 as part of the UNICEF WASH distance learning programme). Other resource materials are under development, including training materials on groundwater management and a country risk assessment toolkit (which includes a 20-country research component).

At country level UNICEF supported a variety of initiatives related to environment and climate change in 2009.

In Bangladesh, UNICEF supported government plans to mainstream climate change issues into national and sectoral development plans and policies. As a result two key planning instruments now include strategies aimed at climate change adaptation and building resilience in communities: the reformulated Bangladesh Poverty Reduction Strategy Paper (PRSP) and the Water Supply and Sanitation Sector Development Programme (SDP). Similar inputs to national planning and strategy development processes were carried out in Rwanda.

In several countries UNICEF continued to work with UN partners on joint climate change adaptation projects under the Government of Spain financed MDG Achievement Fund (MDG-F), including in Guatemala, Colombia, Nicaragua and the Philippines. In China – where UNICEF manages the groundwater component of the MDG-F joint project – a study to assess the impact of climate change on groundwater in the three pilot areas was completed, a conceptual simulation model was developed and tested, and a new set of climate change parameters were added to the draft national groundwater monitoring standard.

In Ethiopia and Nigeria UNICEF is a partner in a similar UN joint initiative, the Government of Japan-funded Africa Adaptation Programme.

UNICEF-supported research and pilot projects investigated the potential of alternative water sources to improve community capacity to adapt to changes in water resource patterns. In Sudan, for example, a study was conducted on the use of upgraded bunds – a traditional technology – to artificially recharge groundwater aquifers in water stress areas. In Cambodia, Lao PDR, Myanmar, Papua New Guinea and other countries in EAPR work continued on developing improved rainwater harvesting technologies. In these and other countries where rainwater is used extensively for drinking UNICEF worked with partners to expand the use of HWTS to improve the safety of this water source.

See Section 3.3 for related initiatives in the areas of groundwater protection and management – including efforts on improved drilling practices and on water quality.
7 Gender and WASH

The UNICEF approach to gender mainstreaming and gender equality in the WASH sector focuses on initiatives aimed at empowering women and girls to effectively act as agents of change and to support and promote their meaningful participation in decision-making and management processes.

More than any other sector, women are the key stakeholders in WASH. As has been once again reinforced by new figures from the JMP (Figure 17), in almost three-quarters of households without a drinking water source on the premises it is women and girls who bear the responsibility – and burden – of collecting water. When given the chance (and appropriate support) it is women who contribute most effectively to water point management committees not only because they have the most to gain from improved services, but because they are the day-to-day users of the service. It is women who, as primary caregivers for children, are best positioned to demonstrate good handwashing practices, and thus save lives. And in situations where water and sanitation facilities are distant – or service is interrupted due to an emergency – it is women who pay the price not only in increased effort, but in the very real danger of being assaulted on their treks.

UNICEF prioritizes the mainstreaming of gender within its own programme of support, and it encourages partners – and especially governments – to do the same.

In one 2009 example, in DR Congo, a UNICEF gender analysis of WASH emergency interventions showed that too few toilets for women and girls were being constructed in IDP camps, and that they were inadequately segregated. A new set of standards were consequently developed that are now applied by UNICEF, its NGO partners and other WASH Cluster actors including government bodies. This analysis was part of the multi-sectoral, eleven-country pilot initiative: “Strengthening Gender Equality in Humanitarian Action.” UNICEF engaged in similar efforts in other emergencies. During the IDP crisis in Pakistan women were central figures in the consultation process for siting WASH facilities in camps, and as a result adequate and segregated toilet and washing facilities were constructed, and security lighting was installed.

Promoting and supporting the use of gender disaggregated data within research, monitoring and evaluation tools is an important way UNICEF contributes towards gender mainstreaming in the sector. One way UNICEF does this is by highlighting already existing gender disaggregated data from MICS and DHS through the JMP reports (e.g. the figures on responsibility for collecting drinking water discussed above). Another way is by ensuring that new gender disaggregated indicators are included within project management instruments. Examples of this include Tanzania where baseline studies for WASH in Schools projects include data on girls toilets and sanitary napkin disposal facilities, in Malawi where a national survey included this data, and in Mozambique where the sustainability check instrument includes information on the participation of women in water point management committees. Finally, UNICEF

Figure 17: Gender and water hauling - water collection responsibility breakdown by women, men, girls and boys, JMP, 2008 data

---

22 Figures from MICS and DHS surveys from 45 countries, 2005-2008 (published in the 2010 JMP Report). Note that these ratios are virtually unchanged from a previous smaller dataset published two years ago.
works with government partners to institutionalise the use of gender disaggregated data within national sectoral monitoring systems, such as ongoing efforts in EAPR and elsewhere to include data on the ratio of girls-to-toilets within national Education Management Information Systems (EMIS).

In countries around the world, UNICEF works to increase the number of private toilets for girls in schools. This is not an inconsequential issue: too few toilets in schools can cause girls to not go to school temporality (e.g. when they are menstruating) or drop out altogether. Personal safety can be compromised by having to go to the bush to urinate or defecate. Some girls deliberately limit their intake of water to reduce the number of times they need to go to the toilet, leading to health problems. A key building block of this campaign was the publication by WHO and UNICEF of new global guidelines for WASH standards in schools in 2009, which include double the amount of toilets for girls than for boys (see also Section 3.4). This is already influencing ongoing discussions on the revision of national standards. Another factor influencing national standards are the projects backed by UNICEF and other support agencies that incorporate such standards (in China, for example, a UNICEF-supported project is demonstrating the value of building more toilets for girls). And in a number of countries – including in Angola, Ethiopia and Kenya – UNICEF is promoting the use of urinals for girls as a way of decreasing pressure on toilets during peak use periods, and of cutting costs.

UNICEF again expanded its work in the area of menstrual hygiene in 2009. In some countries both private washing facilities and sanitary napkin disposal units are incorporated into the design of UNICEF-supported WASH in Schools programme. In other countries UNICEF focuses on information dissemination and education. In Sierra Leone, for example, a new menstrual hygiene booklet for girls was developed, field tested and disseminated. Elsewhere (e.g. in Bhutan and the Maldives) existing education material was modified to include menstrual management modules. In other countries, including Uganda and Iraq, new initiatives to train teachers in this area were launched.

UNICEF’s ongoing efforts to improve the gender balance within its own WASH staff cadre achieved some results in 2009. The proportion of female professional staff rose from the levels in 2008, in part due to ongoing efforts to encourage qualified women candidates for posts (Table 9). This percentage is still very low, however, and fundamental challenges such as the fact that the WASH sector itself is still male-dominated need to be addressed before any real breakthrough can be achieved.

### Table 9: Gender balance of UNICEF professional WASH officers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>333</td>
<td>302</td>
<td>274</td>
<td>230</td>
</tr>
<tr>
<td>Female</td>
<td>96</td>
<td>73</td>
<td>76</td>
<td>59</td>
</tr>
<tr>
<td>% Female</td>
<td>22%</td>
<td>19%</td>
<td>22%</td>
<td>20%</td>
</tr>
</tbody>
</table>

8 Sector Monitoring

The global sectoral monitoring effort was strengthened in 2009 through the formulation of a new strategic framework for the JMP, and with the transition of the GLAAS mechanism (Global Annual Assessment of Sanitation and Drinking-Water) from pilot project to an integral part of the sector monitoring toolbox. A new Strategic Advisory Group was established with the dual mandate of guiding the JMP to more effectively address sectoral monitoring challenges leading up to the MDG target year of 2015, and to ensure that the work of the JMP and GLAAS is fully complementary and coordinated. The Strategic

---

23 Based on December staff listing “snapshots” for each year.
24 The JMP provides basic data on water and sanitation coverage from most countries in all regions (209 countries). GLAAS gathers more in-depth data on sector financing, capacity and coordination from a smaller set of countries (42) and from external support agencies.
Advisory Group is composed of a rotating group of independent technical and policy experts (including – currently – a retired senior UNICEF staff member).

The year also saw the development of a new JMP strategy document which is founded on four strategic priorities: ensuring integrity of the JMP dataset; disseminating data to sector stakeholders; selecting and validating new sectoral monitoring targets and corresponding indicators; and improving interaction between countries and the JMP.

Work within the JMP by WHO and UNICEF in 2009 focused on producing a new global coverage database in preparation for the publication of the 2010 report. In 2008 and 2009 more than 300 datasets were processed and added to the JMP database, which now includes an unprecedented 729 nationally representative household surveys and 152 censuses. The JMP also worked on using the expanded database in new ways, including more in-depth analyses of data within the water and sanitation ladder concept and additional synthesis of coverage disparity data.

UNICEF also contributed to data collection and synthesis for GLAAS in 2009, both as a member of UN-WATER and as a key informant due to its position in the sector generally and its central role in sector monitoring specifically. UNICEF also was instrumental in encouraging and supporting data collection efforts at country level (the World Bank’s Water and Sanitation Programme – through its Country Status Overview mechanism – was also a key country-level collaborator in Africa).

The UNICEF-supported (EC-funded) three-country national sector monitoring pilot project was completed in 2009. The project established national Water Supply and Sanitation Monitoring Platforms in Ghana, Mozambique and Nigeria with a mandate to work with both state and non-state sectoral actors to reconcile and promote convergence amongst national monitoring mechanisms, promote transparency, and synthesize and disseminate sectoral information. The pilot experience yielded a rich set of lessons learned that will be incorporated into future JMP efforts to strengthen in-country sectoral monitoring.

The fourth round of the UNICEF-supported Multiple Indicator Cluster Surveys (MICS) was launched in 2009. It will gather data on the situation of women and children in 50 target countries. For the first time ever, the surveys will include – as standard – a module on handwashing with soap that employs key proxy indicators to assess handwashing practices (Table 10). The choice of these indicators is based on new evidence suggesting they are the most robust objective indicator for handwashing behaviour suitable for use within survey-based periodic monitoring mechanisms. They supplant earlier methods of measuring handwashing practices through questions probing handwashing knowledge (used in some DHS surveys) that have been subsequently found to only weakly correlate with actual practices. Importantly, DHS surveys are also now using these indicators. The new data from MICS and DHS will represent the first ever standardised multi-country information of hygiene behaviour.

Special modules are included in some national MICS surveys, depending on need. An important WASH example is the arsenic module in the latest completed MICS round in Bangladesh. Through the survey, 13,301 household water samples were analyzed for arsenic, with 20 per cent of tests cross-checked by a certified laboratory in Canada. This exercise was successful.

---

25 Several of these studies are referenced in the MICS4 manual, available through the UNICEF monitoring website, ChildInfo: http://www.childinfo.org/mics4.html

<table>
<thead>
<tr>
<th>Table 10: New MICS hygiene indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The proportion of households with a designated place for handwashing where water and soap are present (direct observation)</td>
</tr>
<tr>
<td>- The proportion of households with soap present anywhere in the household (direct observation)</td>
</tr>
</tbody>
</table>
represents the first-ever nationally-representative survey of arsenic in drinking water at the household level (see Section 3.3 for more information on arsenic and water quality programmes).

UNICEF continues to support a wide range of monitoring initiatives in countries around the world, including support to national monitoring systems as well as monitoring activities associated with UNICEF-supported projects. See elsewhere in this report for examples, such as sustainability monitoring initiative in ESAR (Section 3.3) and efforts to improve monitoring of WASH in schools (Section 3.4).

9 Partnerships

UNICEF works extensively with a wide range of partners within a variety of collaborative frameworks at the global, regional and country levels.

The biggest advance on the partnership front in 2009 was the further development of the Sanitation and Water for All global partnership (see Section 1.2). Achieving Sanitation and Water for All’s goals of increased political prioritisation, enhanced sector planning capacity, improved coordination and better targeting of investment will have significant and far-reaching benefits for the sector. UNICEF will continue to prioritise the provision of catalytic support for Sanitation and Water for All, including hosting the Secretariat for the Interim Core Group.

UNICEF was active in other important global partnership frameworks in 2009, often in leadership roles (Table 11).

Table 11: Ten Key Global WASH Partnership Frameworks

<table>
<thead>
<tr>
<th>Partnership Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sanitation and Water for All</strong></td>
<td>Partnership for universal and sustainable access to sanitation and drinking water, with an immediate focus on achieving the MDG targets in the most off-track countries (UNICEF hosts the Secretariat of the Interim Core Group and will host the first High Level Meeting).</td>
</tr>
<tr>
<td><strong>UN Water</strong></td>
<td>Mechanism to strengthen co-ordination and coherence amongst all UN bodies working in water and sanitation (UNICEF is a member and chairs the UN Water Task Force on Sanitation).</td>
</tr>
<tr>
<td><strong>IASC WASH Cluster</strong></td>
<td>Consisting of 14 NGOs, two Red Cross movements and five UN agencies, working with international bodies and major bilateral donors for the coordination of WASH humanitarian assistance (UNICEF is the lead agency).</td>
</tr>
<tr>
<td><strong>WHO/UNICEF Joint Monitoring Programme (JMP)</strong></td>
<td>The official mechanism of the UN system to monitor global progress towards MDG Target 7c.</td>
</tr>
<tr>
<td><strong>Water Supply and Sanitation Collaborative Council (WSSCC)</strong></td>
<td>A UN-affiliated multi-stakeholder partnership organization with a focus on advocacy and awareness raising (UNICEF is a member of the governing council).</td>
</tr>
<tr>
<td><strong>Public-Private Partnership for Handwashing with Soap (PPPHW)</strong></td>
<td>Collaboration of USAID, WSP, LSHTM, CDC, Unilever, Proctor and Gamble, CARE, UNICEF and other partners for advocacy and capacity building for programming initiatives on handwashing with soap (initiator of the Global Handwashing Day).</td>
</tr>
<tr>
<td><strong>Rural Water Supply Network (RWSN)</strong></td>
<td>A global knowledge network that promotes sound policies and practices in rural water supply (chaired by UNICEF).</td>
</tr>
<tr>
<td><strong>Global Network on Household Water Treatment and Safe Storage Network (HWTS)</strong></td>
<td>A broad network of sectoral agencies established by WHO to promote HWTS as a key component of water, sanitation and hygiene programmes.</td>
</tr>
<tr>
<td><strong>Guinea Worm Eradication Programme (GWEP)</strong></td>
<td>Established in 1986, including the Carter Center, UNICEF, WHO and other partners, now working principally in the six remaining GW endemic countries.</td>
</tr>
<tr>
<td><strong>Call to Action for WASH in Schools</strong></td>
<td>Collaboration of CARE, Dubai Cares, Emory University, IRC, Save the Children, UNICEF, Water Advocates, WaterAid, Water for People, WHO, to launch in 2010 a call for action on increasing investments and priority given to WASH facilities in schools.</td>
</tr>
</tbody>
</table>
Regionally, UNICEF is also heavily invested in a series of collaboration mechanisms involving other support agencies, governments and a variety of other stakeholders. These include formal partnership arrangements for the implementation of specific projects, such as the West African Water Initiative (WAWI). They also include work with regional development banks, notably the African Development Bank (AfDB) and the Asian Development Bank (ADB), and other agencies with a strong regional presence such as the World Bank Water and Sanitation Program (WSP). Increasingly important is UNICEF’s engagement with WASH-specific regional collaborative frameworks. A prominent example of this is the African Ministers’ Council on Water, AMCOW, which is a core member of Sanitation and Water for All and an increasingly important contributor to initiatives such as the GLAAS monitoring mechanism (see Section 8), the preparation of Country Status Overviews, the annual Africa Water Weeks and the AfricaSan awards.

At country level UNICEF works with all important stakeholders in the sector in many ways, ranging from formal participation in high-level national collaboration mechanisms to field-work with local CSOs, NGOs and entrepreneurs. This range is important: UNICEF’s continuous engagement with partners in the field translates into informed contributions to national forums (WASH networks, donor groups, SWAps, PRSP mechanisms, UNDAF, the WASH Cluster, etc.) and – ultimately – to a strengthened sector.

As a multi-sectoral agency, UNICEF is also in a position to bridge gaps between sectors to promote more effective collaboration to achieve goals. UNICEF’s deep and long-standing links within the education sector, for example, helps to improve the effectiveness of national WASH in Schools programmes. Similarly, UNICEF’s ties with the health sector strengthen national hygiene and sanitation promotion programmes.

UNICEF continues to be an integral part of the UN system’s work in WASH, through a variety of mechanisms. Increasingly important are joint UN projects in which multiple agencies work under a joint plan of action, with parallel, “pass-through” or pooled funding arrangements. In 2009, UNICEF was a partner in UN joint projects with a total value exceeding $28 million (not including multi-sectoral joint programmes with WASH components). Joint programmes cover a range of areas including governance, WASH in Schools, climate change, and capacity building. See Table 12 for examples of UN joint projects from different regions.

<p>| Table 12: Examples of UN Joint Projects |</p>
<table>
<thead>
<tr>
<th>Country</th>
<th>Title</th>
<th>Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guatemala</td>
<td>Strengthening capacities of the MAM Population for the Economic Governance in Water and Sanitation</td>
<td>FAO, WHO/PAHO, UNFPA &amp; UNDP</td>
</tr>
<tr>
<td>Iraq</td>
<td>Water and Sanitation Master Planning and Capacity Building Programme</td>
<td>UNDP, UNICEF, UN-HABITAT, WHO</td>
</tr>
<tr>
<td>Mauritania</td>
<td>Local environmental management and mainstreaming in the planning project</td>
<td>UNDP, UNICEF, FAO, WFP, WHO</td>
</tr>
<tr>
<td>Tanzania</td>
<td>UNDAP for the new One UN programme (with WASH components)</td>
<td>UNICEF, WHO, UNEP, UNDP, UN-Habitat (WASH component agencies)</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>Community Mobilization for Poverty Reduction and Social Inclusion in Service Delivery (with WASH components)</td>
<td>FAO, ILO, UNFPA, UNDP, UNICEF and WFP</td>
</tr>
</tbody>
</table>

UNICEF also works extensively with UN agencies outside of formal joint projects. Notable partnerships include with WHO on water quality, UNHCR and UNOCHA in emergencies, WFP on WASH in Schools, UN-Habitat on urban/peri-urban programming, and UNFPA on menstrual hygiene.

UNICEF WASH Annual Report 2009 41
Outside of the UN, UNICEF works first and foremost with government partners and local civil society organisations. UNICEF also works extensively at the national level with the private sector, with faith-based organisations and with a wide range of international WASH NGOs such as WaterAid, CARE, Oxfam, Save the Children, Plan International, Concern, PSI, Mercy Corps and Muslim Aid.

Funding from donor partners is the lifeblood of UNICEF WASH programming, accounting for 84 per cent of programme expenditure in 2009 (see Section 10). But these partnerships go well beyond funding: most donor partners play a significant role in developing, planning and monitoring the UNICEF programmes they finance. In addition to support for specific projects, the Governments of Norway and Australia provide thematic funding to the overall UNICEF WASH programme, increasing its flexibility.

10 UNICEF Expenditure for WASH

10.1 Expenditure Patterns and Funding Status

The total UNICEF expenditure on WASH programming was US$ 354 million in 2009, compared to US$ 311 million in 2008. WASH expenditure has increased by an annual average of 24 per cent since 2000. Most new funding comes from UNICEF donor partners.

Once again in 2009 the bulk of expenditure – 92 per cent – was in UNICEF’s 60 priority WASH countries. Most expenditure was in support of country programmes: only two per cent of funds were expended on global and regional programmes and staff.

Figure 18: Total UNICEF WASH expenditure, 1990 – 2009
Although expenditure levels are rising, UNICEF financial resources for WASH still fall far short of requirements.

One measure of this is the number of priority countries that fall short of the US$ 1.5 million threshold for an adequate WASH programme of support (as set in the 2006 Strategy Paper). While there has been some improvement on this front, in 2009 a full third – 20 of 60 countries – still did not meet this threshold.

There are also shortfalls in the other 40 priority countries. In fact, at the beginning of 2010, only nine priority countries were fully funded. The total unfunded value of UNICEF’s approved multi-year programme of support in the 60 priority countries was US$ 422 million. This represents just under 40 per cent of the total approved budgets in those countries (Figure 19). Note that these figures concern the regular, development programmes – not emergency programmes.

Like in 2008, just under half of WASH expenditure was in ten large country programmes (Table 13), all of which are amongst the 60 priority countries. Some of this concentration of resources is due to ongoing programmes of support in countries with complex emergencies, and some is due to response programmes for sudden-onset emergencies. Only one country – Zimbabwe – appears on this list for the first time.

Table 13: Top ten countries by WASH expenditure, 2007, 2008, and 2009 (US$)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zimbabwe</td>
<td>23,295,824</td>
<td>24,462,550</td>
<td>31,727,985</td>
</tr>
<tr>
<td>Sudan</td>
<td>22,836,349</td>
<td>19,948,390</td>
<td>Pakistan 20,337,448</td>
</tr>
<tr>
<td>Pakistan</td>
<td>20,770,061</td>
<td>15,736,166</td>
<td>Sri Lanka 19,155,779</td>
</tr>
<tr>
<td>Somalia</td>
<td>18,852,949</td>
<td>15,039,981</td>
<td>Nigeria 16,970,543</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>17,620,822</td>
<td>14,811,777</td>
<td>Ethiopia 15,957,241</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>15,859,898</td>
<td>14,265,242</td>
<td>India 13,170,046</td>
</tr>
<tr>
<td>DR Congo</td>
<td>15,094,153</td>
<td>12,356,015</td>
<td>Indonesia 10,444,004</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>14,298,242</td>
<td>11,629,558</td>
<td>Bangladesh 10,334,314</td>
</tr>
<tr>
<td>Mozambique</td>
<td>12,004,375</td>
<td>11,065,720</td>
<td>DR Congo 9,850,663</td>
</tr>
<tr>
<td>India</td>
<td>10,906,361</td>
<td>10,384,520</td>
<td>Iraq 8,027,467</td>
</tr>
</tbody>
</table>

Programmes and budget ceilings are developed jointly with, and officially approved by, government partners in all UNICEF programme countries, as well as by the UNICEF Executive Board. Country programmes are of different lengths, usually between 1 and 5 years.
10.2 Funding Sources

As in previous years, the bulk of funding for expenditure on the UNICEF WASH programme is from donor partners: 84 per cent of funds expended in 2009 (Figure 20: ‘other resources’). The remaining funds were from UNICEF’s core budget (‘regular resources’). A slightly greater proportion of donor funds were earmarked for development programmes. This is part of a several-year trend in which the percentage of expenditure on emergency programmes has been declining.

The European Commission, the Netherlands and the United Kingdom were UNICEF’s most important donor partners for WASH, as was the case in 2008 and 2007. Together they provided a total of just under US$ 100 million of the UNICEF expenditure on WASH in 2009. For the first time ever, the EC was UNICEF’s largest single donor for WASH, providing US $37 million for emergency and development programmes in a total of 31 countries.

National committees for UNICEF – “NatComs” – continue to be important funding partners. Together, they accounted for 10 per cent of WASH programme funding, a little more than in 2008.

Table 14: Top ten donors by total WASH expenditure, 2002 to 2009 (descending order by size of total contribution – EOR plus ORR)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>United Kingdom</td>
<td>United Kingdom</td>
<td>United Kingdom</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Netherlands</td>
<td>EC</td>
<td>EC</td>
<td>Japan</td>
<td>Japan</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Netherlands</td>
<td>Netherlands</td>
<td>EC</td>
<td>USA</td>
</tr>
<tr>
<td>Japan</td>
<td>Japan</td>
<td>Japan</td>
<td>USA</td>
<td>EC</td>
</tr>
<tr>
<td>USA</td>
<td>USA</td>
<td>USA</td>
<td>French NatCom</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Australia</td>
<td>Australia</td>
<td>Australia</td>
<td>Norway</td>
<td>Canada</td>
</tr>
<tr>
<td>Canada</td>
<td>Canada</td>
<td>US NatCom</td>
<td>German NatCom</td>
<td></td>
</tr>
<tr>
<td>Swedish NatCom</td>
<td>Spain</td>
<td>German NatCom</td>
<td>Netherlands NatCom</td>
<td>Norway</td>
</tr>
<tr>
<td>Denmark</td>
<td>Norway</td>
<td>Norway</td>
<td>Belgian NatCom</td>
<td>Sweden</td>
</tr>
<tr>
<td>Sweden</td>
<td>US NatCom</td>
<td>Sweden</td>
<td>Canada</td>
<td>Australia</td>
</tr>
</tbody>
</table>
Table 15: Top ten donors by emergency and development programme expenditure

<table>
<thead>
<tr>
<th>Regular Programmes</th>
<th>29,399,357.04</th>
<th>USA</th>
<th>19,677,373.99</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU (EC + ECHO)</td>
<td>25,330,210.25</td>
<td>Japan</td>
<td>14,699,513.58</td>
</tr>
<tr>
<td>Netherlands NatCom</td>
<td>24,453,146.55</td>
<td>Australia</td>
<td>8,396,910.43</td>
</tr>
<tr>
<td>Japan</td>
<td>10,236,269.15</td>
<td>Netherlands</td>
<td>8,130,258.85</td>
</tr>
<tr>
<td>Swedish NatCom</td>
<td>3,308,245.42</td>
<td>EU (EC + ECHO)</td>
<td>7,431,396.12</td>
</tr>
<tr>
<td>US Fund for UNICEF</td>
<td>2,836,242.18</td>
<td>Canada</td>
<td>3,180,694.15</td>
</tr>
<tr>
<td>Netherlands NatCom</td>
<td>2,714,256.96</td>
<td>Spain</td>
<td>2,778,043.81</td>
</tr>
<tr>
<td>Australia NatCom</td>
<td>2,680,863.68</td>
<td>Denmark</td>
<td>2,679,409.70</td>
</tr>
<tr>
<td>Norway</td>
<td>2,542,089.90</td>
<td>Hong Kong NatCom</td>
<td>1,669,954.29</td>
</tr>
</tbody>
</table>

11 Challenges for 2010 and Beyond

Strengthen the Sanitation and Water for All partnership
To achieve the MDGs for the most off-track countries – and to create conditions for achievement of universal and sustainable access to sanitation and drinking water in the long term – the sector needs a high-profile mechanism to articulate the importance of sanitation, hygiene and water for economic and human development, to quantify the extent to which the sector is under-resourced, and to encourage greater investment through ministers of finance and other key decision makers. In 2010 UNICEF will strongly support Sanitation and Water for All to effectively achieve the objectives.

Reduce in-country barriers for achieving MDGs, working with Sanitation and Water for All
Creating champions for WASH amongst national decision makers and freeing up new sources of funding from national and international sources is but the first step. To translate intentions and funds into effective action to scale up progress, UNICEF will work through existing mechanisms and with Sanitation and Water for All partners in countries to assess bottlenecks, strengthen the national institutional framework, build capacity, and improve planning and coordination mechanisms.

Build a framework for expanding WASH in Schools
More progress on WASH in Schools is necessary to achieve health, education and gender equality outcomes, and to fulfil the UNICEF target of universal coverage in schools by 2015. In 2010 UNICEF will prioritise its “Call to Action for WASH in Schools” campaign with its six-point agenda for action: increase investments, engage policy makers, involve multiple stakeholders, improve quality through demonstration, strengthen monitoring systems and build the evidence base.

Mainstream humanitarian response capacity within UNICEF
Through (ongoing) training and adjustments to work plans and accountability frameworks, UNICEF will ensure that emergency planning, coordination and response capacity is mainstreamed within the organisation.

Improve WASH urban emergency response
The earthquake in Haiti as well as other recent emergencies has highlighted the importance of improving capacity to respond effectively in urban environments. Given the fact that UNICEF WASH expertise
leans more towards rural programming, UNICEF will build urban-specific methodologies and technologies for humanitarian response into existing capacity building efforts.

**Scale up CATS with quality**
As the number of countries applying and adopting the CATS model passes 40, UNICEF will work with partners to encourage the expand of the approach beyond pilot and small-scale interventions into transformative national movements. At the same time, UNICEF will continue to work to ensure that the quality of the interventions survives upscaling.

**Institutionalise the promotion of handwashing with soap**
In 2009 there was a significant jump in the number of countries running handwashing promotional campaigns. UNICEF will work to ensure that handwashing with soap is institutionalised within national WASH programmes, including continuing national campaigns as well as a wide range of promotional activities within sectoral programmes.

**Accelerate initiatives to improve effectiveness, economy and sustainability of water points in Africa**
Unlike other regions, Sub-Saharan Africa remains off-track for achieving the MDG water target. Successful efforts in 2009 to promote manual-drilling, improve drilling practices and make fundamental changes in handpump procurement policies must be expanded in 2010 to achieve an appreciable impact.

**Capacity-building on Climate Change Adaptation**
In 2009 steps were taken to prepare resource materials for building staff capacity in the area of water resource management and climate change adaptation. These materials now need to be disseminated and countries supported to assess their WASH programming in the light of knowledge of climate change and develop suitable adaptation strategies.
Annex: UNICEF WASH Priority Countries

WASH priority countries by region

<table>
<thead>
<tr>
<th>CEE/CIS</th>
<th>EAPRO</th>
<th>ESARO</th>
<th>MENA</th>
<th>ROSA</th>
<th>TACRO</th>
<th>WCARO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>Cambodia</td>
<td>Angola</td>
<td>Egypt</td>
<td>Afghanistan</td>
<td>Brazil</td>
<td>Benin</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>China</td>
<td>Burundi</td>
<td>Iraq</td>
<td>Bangladesh</td>
<td>Colombia</td>
<td>Burkina Faso</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Indonesia</td>
<td>Eritrea</td>
<td>Morocco</td>
<td>India</td>
<td>Guatemala</td>
<td>Cameroon</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>Lao PDR</td>
<td>Ethiopia</td>
<td>Sudan</td>
<td>Nepal</td>
<td>Chad</td>
<td>Chad</td>
</tr>
<tr>
<td>Papua New</td>
<td>Madagascar</td>
<td>Lesotho</td>
<td>Yemen</td>
<td></td>
<td>D. R. Congo</td>
<td>Niger</td>
</tr>
<tr>
<td>Guinea</td>
<td>Malawi</td>
<td>Mozambique</td>
<td></td>
<td></td>
<td>Ghana</td>
<td>Nigeria</td>
</tr>
<tr>
<td>Philippines</td>
<td>Rwanda</td>
<td></td>
<td></td>
<td></td>
<td>Guinea</td>
<td>Senegal</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Somalia</td>
<td></td>
<td></td>
<td></td>
<td>Guinea-Bissau</td>
<td>Senegal</td>
</tr>
</tbody>
</table>

Based on the United Nations world map. The countries shown on the map do not imply official endorsement or recognition by the United Nations.