Urgent Need for Sanitation and Water Focus
UN Secretary-General's Advisory Board on Water and Sanitation
May 12, 2010

Inadequate progress for sanitation and water The 2010 Summit on the Millennium Development Goals, 20 – 22 Sept. in New York, is a defining opportunity for global leaders to align priorities, identify solutions and make urgent commitments to achieve the MDGs by 2015. Since the MDGs were agreed in 2000, the global landscape has evolved with the emergence of dominating issues such as climate change, the international financial and food crises, and devastating natural disasters. While global politics, economics and social priorities are in constant flux, what has remained pretty much constant since 2000, is the number of people lacking safe sanitation facilities - approximately 2.5 billion or roughly one-third of the global population. The trends are better for improved sources of drinking water, and yet 885 million people still go without this most basic asset. Many more drink unsafe water, which sets up a vicious cycle of ill health and further impoverishment with severe personal, financial and health costs.

Acceleration is possible Despite the discouraging trend for sanitation, some progress is being made. For example, open defecation rates have significantly decreased from 25% in 1990 to 17% in 2008. In addition the proportion of the population using improved sanitation facilities is increasing in all regions – just not quickly enough to be on track to meet the MDG target. How can countries accelerate these positive trends? The evidence shows that when countries anticipate, prioritize and plan for sanitation and water coverage, great progress within a short timeframe is possible. (For examples see www.unsgab.org/waterandmdgs.). At the same time, by linking water management to national planning, budgeting and priority setting, integrated water resource management and water efficiency plans [1] have started a process to illuminate how water management contributes to achieving development goals and the importance for water managers to clearly link their efforts to national development priorities and the MDGs.

An urgent call The United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB) implores global leaders to give sanitation interventions the highest priority during the 2010 MDG Summit and prioritize water interventions during preparations for the Rio + 20 Summit in 2012. As the accompanying chart illustrates, investments in these areas will accelerate progress for *all* the MDGs and for sustainable development. Thus far, the preparatory documents for the Summit, such as "Keeping the promise: a forward-looking review to promote an agreed action agenda to active the MDGs by 2015," have paid inadequate attention to sanitation and water. UNSGAB therefore is making an urgent appeal for a sustainable sanitation half decade – the five year drive to 2015. If we do not generate the political will and financial support for sanitation and water -- two fundamental building blocks of human development -- our hopes of reaching all the MDGs will be greatly compromised.

[1] IWRM and Water Efficiency Plans were called for in 2002 at the World Summit on Sustainable Development

Contributions of domestic water supply and sanitation	Contributions of water resources management
Poverty: To halve the proportion of the world's people whose income is less than $1/day *Access to water and sanitation brings health, productive time, economic opportunities and direct savings to the poorest*	
• Household livelihood security rests on the health of its members; adults who are ill themselves or who must care for sick children are less productive [2] • Access to safe and affordable water frees the haulers of water to engage in productive activities; access to sanitation helps prevent diseases. Time savings of 20 billion working days per year from convenient WASH services, including 5.5 billion productive days per year lost due to diarrhea and burden of fetching water • The poorest people pay some of the highest prices for water leaving less of their income for food, shelter and education.[3] • Losses are greatest in some of the poorest countries. Sub-Saharan Africa loses about 5% of GDP, or some $28.4 billion annually, a figure that exceeds total aid flows and debt relief to the region in 2003. Most of the losses are sustained by households below the poverty line, retarding the efforts of poor people to produce their way out of poverty.[4]	• Water is a factor of production in agriculture, industry and other economic activities that provide livelihoods for poor people.[5] • Water management is critical to the interaction between people and their livelihood base. For the majority of poor people in developing countries, this consists of land, forests, rivers, and small-scale entrepreneurial activity based on natural products. Such people are vulnerable to rainfall variation and seasonal food and fodder shortage and many are also at risk from catastrophic flood. At times of drought, even if drinking water supplies remain, the land becomes barren, livestock dies, and food supplies run out, ane people are forced to migrate unless relief is provided.[6] • A study in Nicaragua (5,025 households) found that households with a well had 20-100% more income than those without, with the difference being most marked among the poorest; and that 40% of the extra income came from garden plots and small livestock managed by women around the house.[7]
Hunger: To halve the proportion of the world's people who suffer from hunger. *Access to sanitation and water improves nutrient uptake and allows for increased agricultural output.*	
• Healthy people are better able to absorb the nutrients in food than those suffering from water-and-sanitation-related diseases. Water, sanitation and hygiene are closely linked to childhood malnutrition.[8] • Diarrhea is not the only health effect of poor sanitation, tropical enterophathy is a major one and links to under nutrition. A study estimated	• Water is a direct input to irrigation for expanded food production. • Increasing the efficiency of water use in agriculture and limiting the waste of food in processing to produce more food for a growing, more urban population. • Irrigation coverage statistics and crop productivity levels may give indications of

[2] Health, Dignity and Development: What Will it Take? (Millennium Project Task Force on Water and Sanitation, final report)
[3] Beyond Scarcity: Power, Poverty and the Global Water Crisis. (United Nations Human Development Report, 2006).
[4] Beyond Scarcity: Power, Poverty and the Global Water Crisis. (United Nations Human Development Report, 2006).
[5] Health, Dignity and Development: What Will it Take? (Millennium Project Task Force on Water and Sanitation, final report)
[6] Poverty Reduction and IWRM: Background Paper 7 (Global Water Partnership Technical Committee).
[7] Poverty Reduction and IWRM: Background Paper 7 (Global Water Partnership Technical Committee).
[8] Water, sanitation and hygiene: Quantifying the health impact at national and local levels in countries with incomplete water supply and sanitation coverage, Environmental Burden of Disease, no. 15 (WHO, 2007)
[9] What works? Interventions for maternal and child undernutrition and survival. (Lancet, 2008).

that improvements in sanitation had a similar effect on the growth of children, as dietary interventions; and resulted in substantial decreases in stunting prevalence (in the range 4-37% for rural children and 20-46% for urban children)[9] • Data collected in the late 1980's from eight countries in Sub-Sahara Africa, Asia, North Africa, and the Americas were combined and analyzed. It showed that improvements in were associated with increases in height ranging from 0.8cm to 1.9cm. Differences of such magnitude are not always found following nutritional interventions[10]	national wealth and there are clearly extensive benefits for rural development; however, these may not reach the poor unless they are specifically targeted through larger water management policies. The negative social and environmental impacts, such as water-logging and salinity, disruption to downstream fisheries and introduction of water-associated disease are well documented and often affect the poorest first.[11]
Primary Education: To ensure that children everywhere complete a full course of primary schooling. *Sanitation and water access in schools greatly improves school attendance, especially for adolescent girls.*	
• Improved WSS services relieve children, especially girls, from water fetching duties, allowing them to attend school. Project evaluations and research has found a 15% increase in school attendance in Bangladesh, when water was available within a 15minute walk compared to one of an hour or more. Similarly, a study in Tanzania showed a 12% increase in school attendance when water was available within 15 minutes instead of being more than an hour away.[12] • 443 million school days are lost each year from water-related illness.[13] • Infections with soil-transmitted helminthes (hookworms, roundworms or whipworms) are a leading cause of physical and intellectual growth retardation[14]. Children enduring intense infections with whipworm have twice more school absenteeism thereby deepening a cycle of poverty. The average IQ loss per worm infestation is 3.75 points, representing 633 million IQ points lost for the people who live in the world's low-income countries. Knowledge on disease transmission suggests that 100% of infections caused by these soil-transmitted helminthes can be prevented by adequate water, sanitation and hygiene[15]	• Improved water management reduces the incidence of catastrophic events like floods that interrupt educational attainment • For children in many poor communities time is a valuable commodity and school attendance competes with work such as carrying water.
Gender Equality : To promote gender equity and empower women. *Water and sanitation access helps empower women directly and indirectly.*	
• Reduced time, health, and care-giving burdens	• Community-based organizations for water

[10] Unsafe water, sanitation and hygiene, Chapter 16 (WHO, 2007).
[11] Poverty Reduction and IWRM: Background Paper 7 (Global Water Partnership Technical Committee).
[12] Towards effective programming for WASH in schools (International Water and Sanitation Centre, 2007).
[13] Beyond Scarcity: Power, Poverty and the Global Water Crisis. (United Nations Human Development Report, 2006).
[14] Soil-transmitted helminth infections: ascariasis, trichuriasis, and hookworm. (Lancet, May 2006)
[15] Schistosomiasis in African infants and preschool children: to treat or not to treat? (Trends in Parasitology, March 2007).

<table>
<tr><td>from improved water services give women more time for productive endeavors, adult education, empowerment activities, and leisure.
• Girls' toilets & latrines in secondary schools helps keep adolescent girls in school. Girls who have reached puberty and female school staff who are menstruating need gender-related privacy. If no privacy is provided, students may not use the facilities at school, resulting in absenteeism rates that can reach 10 – 20 per cent of school time. A study undertaken in Bangladesh revealed an 11% increase in girls' enrolment mainly due to the provision of sanitary latrines.[16] In Alwar District, India, school sanitation increased girl's enrolment by one-third, and improved academic performance for boys and girls by 25%[17]
• Without safe and close-by sanitation facilities, girls risk sexual harassment in toilets or on their way to them. A survey conducted in South Africa reveals that more than 30 percent of the girls attending school had been raped at school mainly in unsafe sanitary facilities.[18]</td><td>management can improve social capital of women through leadership, networking opportunities and solidarity building.
• Well applied water management approaches can ensure that women have a voice in decisions about water that affect them and can gain access to water to help boost their incomes. Any intervention that makes safe water more easily available is a direct contribution to gender equity.</td></tr>
<tr><td colspan="2">Child Mortality: To reduce by two-thirds the death rate for children under five.
Access to water and sanitation greatly reduces diarrhea – the single biggest killer of children in the developing world.</td></tr>
<tr><td>• Improved sanitation, safe drinking water sources, and greater quantities of domestic water for washing reduce infant and child morbidity and mortality.
• Diarrhea is the biggest single killer of children in the developing world where 5,000 children die daily from water-related illnesses. 1 out of 5 child death is due to diarrhea.[19]
• On average, the three most effective interventions to reduce diarrhea morbidity in children under 5 are handwashing with soap (37%), improved sanitation (34%) and point of use (POU) water treatment (29%). Specifically, much greater impact can be observed, as in Karachi where flocculent-disinfectant point-of-use water treatment resulted in 65% lower prevalence of diarrhea.[20]</td><td>• Well-managed water resources help poor people make a decent living and reduce their vulnerability to shocks, which in turn gives them more secure and prosperous livelihoods to draw upon in caring for their children.</td></tr>
<tr><td colspan="2">Maternal Mortality: To reduce by three-fourths the rate of maternal mortality
Access to water both during pregnancy and at maternal facility diminish maternal mortality</td></tr>
</table>

[16] Bangladesh: Primary-school dropout rate rises to 47 percent (Humanitarian news and analysis service of the UN Office for the Coordination of Humanitarian Affairs, 2007).

[17] Sanitation fosters social development (IYS factsheet, UN-Water 2008).

[18] Raising Clean Hands: Advancing learning, health and participation through WASH in schools – Joint Call to Action 2010 (UNICEF, 2010).

[19] Diarrhea: Why Children are Still Dying and What Can be Done (UNICEF and WHO, 2009)

[20] Handwashing and risk of respiratory infections: a quantitative systematic review (Tropical Medicine & International Health, March 2006).

• Accessible sources of water reduce labor burdens and health problems resulting from water portage, reducing maternal mortality risks. • Availability of clean water and handwashing with soap by mothers and birth attendants show a 41% lower mortality rate among neonates and improves the survival rate of mothers.[21]	• Improved nutrition and food security through better water management reduces susceptibility to diseases that complicate pregnancy. • The burden of fetching water and dealing with water-related disease in the family falls disproportionately on women and puts pressure on their own health. Measures that help women to reduce this burden and to improve family health, will contribute to improved maternal health
Major Disease: To halve, halt and begin to reverse the spread of HIV, malaria, other major diseases. *Access to sanitation and water is the foundation of health and therefore prerequisite for ameliorating major diseases.*	
• Safe drinking water and basic sanitation help prevent water-related diseases, including diarrheal diseases, schistosomiasis, filariasis, trachoma, typhoid fever, cholera, rotavirus, bacillary dysentery, hookworm, giardia, campylobacter and helminthes. Water related diseases collectively account for 80% of sickness in developing countries. These diseases kill annually more children, 2.2 million, than AIDS malaria, and TB combined.[22] • Providing water and sanitation to People Living with HIV and AIDS reduces significantly opportunistic infections, protects caregivers and household members from infection with other disease-causing pathogens, and facilitate and encourage better hygiene • Diarrhea is a very common symptom of HIV and AIDS, it affects 90 percent of PLHA, it becomes more frequent and severe as the immune system deteriorates, and results in significant morbidity and mortality[23]. • A study of HIV-positive infants in the Democratic Republic of Congo found that the risk of dying from diarrhea is 11 times greater than for infants who were HIV-negative [24]. • Evidence indicates that HIV affected households require more than the basic 20 liters of water per capita daily[25].	• Improved water (and wastewater) management in human settlements reduces transmission risks of mosquito-borne illness like malaria and dengue fever
Environmental sustainability: To ensure environmental sustainability *Water is the natural recipient of most pollutions*	

[21] Maternal and Birth Attendant Hand Washing and Neonatal Mortality in Southern Nepal (Archives of Pediatrics and Adolescent Medicine, May 2010).

[22] The world's most serious health problem remains diseases caused by inadequate water, sanitation and hygiene (Water Advocates, 2009).

[23] Infectious Diarrhea In Human Immunodeficiency Virus (Gastroenterology Clinics of North America, Sept. 2001)

[24] A Prospecti ve Study of Diarrhea and HIV-1 Infection among 429 Zairian Infants (The New England Journal of Medicine, December 1993).

[25] Workshop on Integration of Water, Sanitation and Hygiene into HIV/AIDS Home-Based Care Strategies: Background Paper (Water and Sanitation Programme, 2007).

• Adequate treatment and disposal of excreta and wastewater contribute to less pressure on freshwater resources. • Inadequate access to safe water and inadequate access to sanitation and other infrastructure are two of the five defining characteristics of a slum.[26] • When adequate sanitation facilities are unavailable, the surrounding environments (be they terrestrial or marine) are used for either direct defecation or for septic tanks dumping thereby badly polluting these ecosystems.	• Improved water management, including pollution control and water conservation, is a key factor in maintaining ecosystems integrity. Groundwater depletion threatens food security and livelihoods • Slum settlements are often built on sites particularly vulnerable to water-related disasters, which can be reduced through better water management and development
Develop global partnerships for development *The key for improved water management relies in devising new partnerships*	
• The international community has failed to prioritize water and sanitation in the partnerships for development that have coalesced around the Millennium Development Goals. • Sanitation and drinking-water are often relatively low priorities for allocations in national budgets and official development assistance. In many instances interventions are not targeted to the population most in need. • Today, some 885 million people in developing countries have inadequate access to water, and 2.6 billion lack basic sanitation. Those twin deficits are rooted in institutions and political choices, not in water's availability.[27]	• Successful transboundary water resources management arrangements rely on strong partnerships • Water resources management strategies can only be successful if different user groups devise solutions that are jointly accepted and followed. • Integrated water resources management (IWRM) provides a framework within which to consider tradeoffs between different development objectives and, where possible, to identify win-win water investments. By aligning and integrating interests and activities that are seen as unrelated, or that despite obvious interrelationships are simply not coordinated, IWRM can foster more efficient and sustainable use of water resources to achieve the

[26] State of the World's Cities (UN Habitat, 2007).
[27] Beyond Scarcity: Power, Poverty and the Global Water Crisis. (United Nations Human Development Report, 2006).