



# LIBERIA

## Water and Sanitation Profile

POPULATION AND HEALTH STATISTICS	
Population (2008)	3.8 million <sup>a</sup>
Proportion of population living in urban areas (2008)	60% <sup>a</sup>
Average annual urban/rural population growth rates (1990-2008)	4.5 / 1.1% <sup>a</sup>
Under age 5 mortality rate (2007)	133/1000 live births <sup>b</sup>
Under age 5 mortality rate due to diarrheal disease (2004)	14.8% <sup>b</sup>
<small>Note: Most recently available data provided.  <sup>a</sup> World Bank. 2009 World Development Indicators (WDI) Database.  <sup>b</sup> World Health Organization (WHO). World Health Statistics 2009.</small>	

### SECTOR OVERVIEW

Liberia is one of the poorest countries in the world, with approximately 84 percent of the population living on less than US\$1.25 per day.<sup>1</sup> The country was devastated by a civil war which lasted 14 years. Extensive destruction of infrastructure and a lack of maintenance led to many basic public services being discontinued, including water supply and sanitation (WSS). While water and sanitation access data in Liberia are generally unreliable, it is evident that the WSS sector requires serious rehabilitation and rebuilding after years of deterioration.

Before the civil war, approximately 75 percent of the population lived in rural areas. The conflict forced hundreds of thousands of people to flee into cities. Consequently, Liberia has experienced rapid urban population growth, especially in Monrovia. This has severely stressed Monrovia's marginally functional urban WSS system. Rural areas remain sparsely populated and devoid of functional facilities while other urban areas have had their systems fall into

<sup>1</sup> World Bank. 2009 WDI Database.

complete disrepair. Looting, vandalism, lack of spare parts, and lack of technical and management skills perpetuate the difficulty in providing service. The shortage of WSS facilities has resulted in sporadic outbreaks of water-related diseases such as cholera that culminate in high levels of morbidity and mortality as well as creating a heavy burden on health facilities.<sup>2</sup>

Meeting and maintaining the Millennium Development Goal (MDG) targets poses a challenge. While the MDG target for total water coverage has reportedly been met, urban water coverage has been declining, down by 7 percent since 1990, according to the World Health Organization (WHO).<sup>3</sup>

WATER AVAILABILITY IN LIBERIA	
Renewable internal freshwater resources per capita, m <sup>3</sup> /person/year (2008)	52,729 <sup>c</sup>
Water withdrawals, m <sup>3</sup> /person/year (2002)	36 <sup>d</sup>
Projected water resources per capita, m <sup>3</sup> /person/year in 2015	43,335 <sup>d</sup>
<small>Note: Most recently available data provided.  <sup>c</sup> UN Food and Agriculture Organization (FAO). FAO Aquastat Database. "Freshwater resources" refers to estimates of runoff into rivers and recharge of ground water and does not include flows from other countries.  <sup>d</sup> Note this value was calculated using a straight-line calculation based on average population growth rates (1990-2008) with no adjustment for consumption or technology changes. Data was obtained from World Bank WDI Database (population) and FAO Aquastat Database (water resources).</small>	

### WSS SECTOR FRAMEWORK

Liberia's civil war also affected institutional arrangements and the capacity to manage the WSS sector. Although a number of laws, rules, and a regulatory framework existed in the past, Government and donor efforts at rebuilding have essentially set the

<sup>2</sup> AfDB/AWF. Monrovia Expansion and Rehabilitation of Three County Capitals Water Supply and Sanitation Project (2007).

<sup>3</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Sanitation and Drinking Water, 2010 Update.

older framework aside. Currently there is no law specifically pertaining to the regulation of water resources, except an amendment to the Public Utilities Law in 1973 establishing the Liberia Water and Sewer Corporation (LWSC). With the assistance of donor organizations, the Government of Liberia (GOL) is currently drafting WSS sector policy and preparing an Integrated Water Resources Management Policy (IWRMP). In addition, development in the WSS sector has been assigned a high priority in Liberia's Interim Poverty Reduction Strategy (IPRS).<sup>4</sup>

The Ministry of Lands, Mines and Energy (MLME) is responsible for overall WSS sector development and the formulation of policies and guidelines. Though MLME is entrusted with WSS sector regulation, there is no full-fledged water department, and this negatively affects WSS and water resources sector planning and development.<sup>5</sup>

The LWSC is the principal public institution responsible for providing water and sewer services to urban areas (although LWSC services have been essentially limited to the capital city of Monrovia). A number of city corporations have some responsibilities for WSS services outside of Monrovia. In Monrovia, the Monrovia City Corporation (MCC) is responsible for on-site waste management of toilets and latrines. In rural areas, some of the responsibilities for the WSS sector are being transitioned from the Rural Development Authority (RDA) to the Ministry of Public Works (MPW).

Key challenges and sector constraints include the following: poor water service characterized by interruptions and breakdowns; an absence of sector-specific policies and strategies; depleted human resources capacity; and the weak financial position of LWSC, including an inadequate billing structure and high water losses.

### THE URBAN SUB-SECTOR

Liberia's urban areas experienced rapid growth throughout the civil war as people in rural areas and small towns abandoned their homes for refuge in the

<sup>4</sup> AfDB/AWF. *Monrovia Expansion and Rehabilitation of Three County Capitals Water Supply and Sanitation Project* (2007).

<sup>5</sup> AfDB. *Appraisal Report: Liberia - Monrovia Water Supply and Sanitation Rehabilitation Program* (2007).

### KEY GOVERNMENT AGENCIES

Agency	Description	Contact Information
City Corporations	<ul style="list-style-type: none"> <li>WSS services in those cities not served by the LWSC.</li> </ul>	
LWSC	<ul style="list-style-type: none"> <li>Government owned for-profit agency;</li> <li>WSS service provider for urban areas greater than 5,000 people.</li> </ul>	Clarence M. Momoh, cmurraymomoh@yahoo.com Tel: 231-6533-814; William Warner, wwarnered@yahoo.com Tel: 231 6526 110
Ministry of Health	<ul style="list-style-type: none"> <li>Water quality monitoring.</li> </ul>	
Ministry of Rural Development	<ul style="list-style-type: none"> <li>Rural WSS service provider.</li> </ul>	
MLME	<ul style="list-style-type: none"> <li>Responsible for overall WSS sector regulation, policies and guidelines.</li> </ul>	John Thomas gonkanus@yahoo.com Tel: 231-77522 633

cities. Among cities, Monrovia experienced the greatest growth, with its population estimated to have increased from 700,000 to 1.2 million people throughout the last 10 years of the civil war.<sup>6</sup>

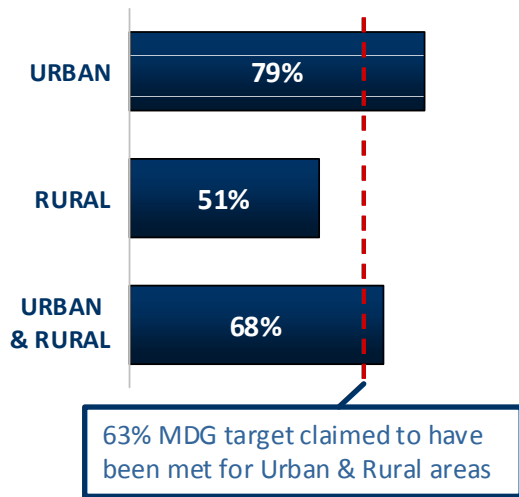
Recent estimates show LWSC's potable water production rate in Monrovia at 5,800 cubic meters/day, only 10 percent of the production rate in 1990.<sup>7</sup> The LWSC still requires significant subsidies from outside donors even though service is reduced to only a small part of Monrovia. Outside of Monrovia, the 10 municipally-managed water systems completely collapsed during the civil war. The populations in these areas have relied on spring water, untreated surface water and community operated wells.

Sewage systems have broken down or are in a state of disrepair. In Monrovia, the Government and donors have relied on pump trucks to remove wastewater that has collected in low spots since lift station pumps and the wastewater treatment plant became inoperable. As a result, most Liberians have come to rely on pit latrines or on-site septic tanks. However, septic tanks are in short supply, and this has resulted

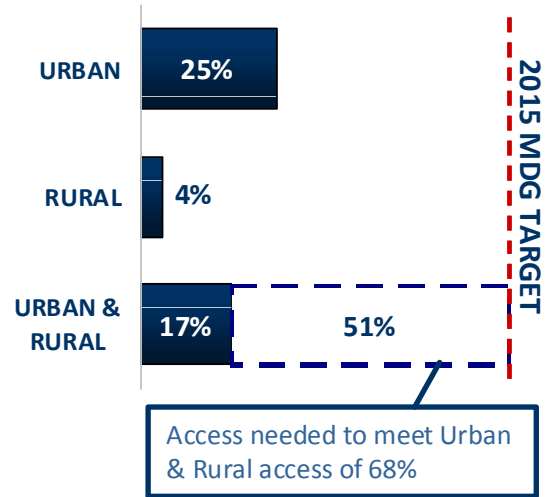
<sup>6</sup> UN/World Bank. *Liberia Joint Needs Assessment Draft Sector Working Paper* (2004).

<sup>7</sup> *Ibid.*

### Meeting MDG 7: Access to Water in 2008



### Meeting MDG 7: Access to Sanitation in 2008



**Data Source:** WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP), *Progress on Sanitation and Drinking Water, 2010 Update*.  
 Note on comparing baseline data from earlier reports: The JMP methodology uses all available data in each successive report. This means that estimates may be recalculated for earlier years if more data becomes available. The JMP notes that these new estimates may affect the baseline reported in earlier data sets.

in a high level of open defecation or defecation into plastic bags that are then deposited onto trash heaps or thrown into open drainage channels. Recent developments include plans for a full-scale rehabilitation of Monrovia’s sewerage system.

#### THE RURAL SUB-SECTOR

The rural areas have typically depended on surface sources and small community-managed systems for water and a combination of pit latrines, open defecation, and some septic tanks for sanitation. However, rural village water committees or user associations that operated in the past are now largely defunct and supply chains for parts have been disrupted. Furthermore, the rural areas have depleted sanitation facilities such as pit latrines and septic tanks, creating a need for significant rehabilitation or back filling to protect public health.

#### DONOR INVOLVEMENT

Donor involvement is primarily coordinated through the Infrastructure and Basic Services Committee of the Liberia Reconstruction and Development Committee (LRDC), which is the main aid coordination body for development assistance.

Recently approved donor activity includes the Liberia Water Sector Reform project, through African Development Bank (AfDB) and the African Water

Facility (AWF) (US\$2.5 million). This project will further the reforms and action plans identified in previous initiatives. It aims to develop and implement policy, strategy, institutional reform, and capacity building; formulate instruments for water sector planning, and reinforce national capacities to undertake the sector reform process. Other recently approved WSS development projects include the Monrovia Water Supply and Sanitation Rehabilitation Program (US\$23 million), largely supported by the European Commission, World Bank and United Kingdom (UK) Department for International Development (DFID).

DONOR	ACTIVITIES	CONTACT INFORMATION
AfDB	<ul style="list-style-type: none"> <li>Water Sector Reform Project, including institutional reform and development of policy and strategy;</li> <li>Urban WSS infrastructure expansion, redevelopment and rehabilitation, including the improvement of WSS services in the urban areas of Monrovia, Buchanan, Kakata, and Zwedru;</li> <li>Management capacity building.</li> </ul>	
DFID	<ul style="list-style-type: none"> <li>Monrovia Water Supply and Sanitation Rehabilitation Program, to rehabilitate the city's infrastructure up to 50% and above of pre-war capacity;</li> <li>Capacity building for LWSC;</li> <li>Sector reform support.</li> </ul>	
European Commission	<ul style="list-style-type: none"> <li>Urban WSS infrastructure redevelopment and capacity building.</li> </ul>	
Japan International Cooperation Agency (JICA)	<ul style="list-style-type: none"> <li>Developed Monrovia Master Plan Study on Urban Facilities Restoration and Improvement;</li> <li>WSS infrastructure development and rehabilitation, including full-scale rehabilitation of Monrovia's sewage system;</li> <li>Constructed a pilot community water supply system in Gardnersville.</li> </ul>	
United Nations Children's Fund (UNICEF)	<ul style="list-style-type: none"> <li>Community-Managed Water Tank Project, including installation of drinking water tanks;</li> <li>Provided water quality testing equipment for the Liberian Hydrological Service in Monrovia;</li> <li>Water, sanitation, and hygiene promotion;</li> <li>Basic service access to internally displaced persons in refugee camps;</li> <li>Assessment of WSS facilities.</li> </ul>	
The World Bank	<ul style="list-style-type: none"> <li>Urban WSS infrastructure redevelopment and capacity building;</li> <li>Supporting rehabilitation of water distribution system and upgrades of sanitation facilities.</li> </ul>	Ishac Diwan, Country Director World Bank Accra Office 69, Dr. Isert Road Accra , Ghana Tel: 233-21-229-681 Fax: 233-21-227887 Email: <a href="mailto:Idiwan@worldbank.org">Idiwan@worldbank.org</a>
*Contact information may change frequently and therefore be different from what is noted above.		

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Additional information and sources that aided in the completion of this report include: UN Water, *Status Report on IWRM and Water Efficiency Plans for CSD16* (2008); World Bank, *Emergency Infrastructure Project Supplemental Component Project Paper* (2006) and *Emergency Monrovia Urban Sanitation Project (EMUS) Project Information Document (PID), Concept Stage* (2009); AfDB, *News and Events, Projects & Operations and Country Brief: Liberia* (2009); UN Development Programme (UNDP), *National Human Development Report – Liberia: Mobilizing Capacity for Reconstruction and Development* (2006); UNICEF, *Liberia Water, Environment and Sanitation Country Profile* (2005); AllAfrica.com and the Monrovia Informer, "AfDB Commits US\$29 million for Water and Sanitation" (October 5, 2009), "JICA Constructs First Urban Water Center in Monrovia/Gardnersville" (October 1, 2009), and "JICA Holds Seminar on Monrovia's Draft Master Plan" (September 29, 2009); African Press Agency, "JICA to rehabilitate Monrovia Sewage System" (October 1, 2009); World Investment News, *Liberia Water and Sewer Corporation*, <http://www.winne.com/ssa/liberia/reports/2008/cp/wat>; and the Government of Liberia website, <http://www.emansion.gov.lr/>.

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