WASH Poor in a Water-Rich Country

A Diagnostic of Water, Sanitation, Hygiene, and Poverty in the Democratic Republic of Congo

Executive Summary
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An advanced draft of the Democratic Republic of Congo WASH Poverty Diagnostic was presented and discussed with government, donor partners, and civil society representatives in an event on September 23, 2016, in Kinshasa. A full list of participants is attached in appendix Y.
## Abbreviations

<table>
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>EVA</td>
<td>Ecoles et Villages Assainis (Healthy Schools and Villages Program)</td>
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<td>MDG</td>
<td>Millennium Development Goal</td>
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<tr>
<td>REGIDESO</td>
<td>Régie de Distribution d’Eau (National Urban Water Distribution Agency)</td>
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<td>UN</td>
<td>United Nations</td>
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<td>WASH</td>
<td>water, sanitation, and hygiene</td>
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<td>WPD</td>
<td>WASH poverty diagnostic</td>
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Executive Summary

The Water, Sanitation, and Hygiene Poverty Diagnostic (WPD) in the Democratic republic of Congo is part of a global initiative to improve evidence on the linkages between WASH and poverty. The diagnostic provides a detailed analysis of sector status, strengths, and weaknesses to inform the attainment of the new Sustainable Development Goals (SDGs) that aim for universal access to safely managed water and sanitation.

Poverty in the Democratic Republic of Congo

The Democratic Republic of Congo has the third highest poverty rate in the world and concentrates the fifth largest number of poor people within its borders. The number of poor people in the Democratic Republic of Congo has increased by over 7 million since 2005, driven by the second highest fertility rate in Africa. Poverty rates remain in excess of 80 percent in the forested northwest and inaccessible central Democratic Republic of Congo and are above 50 percent even around major agglomerations, such as Kinshasa and Lubumbashi, which concentrate millions of poor (map ES.1). Indeed, a striking characteristic of price-level adjusted poverty in the Democratic Republic of Congo is that overall it is almost as high in urban areas (62.5 percent) as it is in rural zones (64.9 percent), and is particularly extreme in small towns (81 percent), which are labor abundant, capital deficient, ill-connected, and marred by widespread un- and under-employment.

Multidimensional poverty is high and human development indicators are among the lowest in the world. Despite improvement over the past decade, the Democratic Republic of Congo continues to rank at the bottom of the United Nations (UN) Human Development Index and

Map ES.1: Poverty Rate (Percent) and Absolute Number of Poor in 26 New Provinces

Note: Former province boundaries in black.
other indicators of multidimensional poverty (OPHI 2016). The Democratic Republic of Congo has low life expectancy (58 years) and child mortality in excess of even the Sub-Saharan average (World Bank 2016c).

The scope of the Democratic Republic of Congo for diversifying its economy and investing in human capital through education, health, and basic services, such as WASH, is narrow. Many of the key drivers of the Democratic Republic of Congo’s post-war growth are now under threat. A constitutional crisis threatens broader peace, residual armed conflict festers in central and eastern Democratic Republic of Congo, and public resources are under pressure from low prices and transactional politics. At the same time, the universal access targets of the new SDGs require major efforts, given the present situation of WASH services in the Democratic Republic of Congo. The Democratic Republic of Congo may be the ultimate test for the World Bank’s twin goals of ending extreme poverty and promoting shared prosperity, and the realism of the new SDGs.

**WASH Services in the Democratic Republic of Congo**

Access to improved WASH services is low in the Democratic Republic of Congo and has barely improved over the past decade. Improved water facilities are available to only 52 percent of the population and less than 29 percent have access to improved sanitation (UNICEF and WHO 2015). These access rates are substantially below Sub-Saharan averages. Access to both improved water and sanitation has risen by barely 3 percent since the first democratic elections in 2006 and the Democratic Republic of Congo missed the 2015 Millennium Development Goals (MDGs) for WASH. In the same period, due to rapid population growth, the total number of Congolese lacking access to improved water and sanitation facilities increased by more than a quarter to over 35 million and 53 million, respectively.

Urban areas have much higher access to improved water sources than rural zones, while differences in improved sanitation access are more compressed at lower levels. Improved water access in cities towers at 81 percent compared to only 31 percent in rural areas. However, urban access has been eroding over the past decade in the face of rapid urbanization. Large access inequalities exist between major cities and more marginal urban areas. In the sanitation sector, long-term aggregate trends indicate nearly equivalent low access rates of approximately 28.5 percent in urban and 28.7 percent in rural areas, with a negative urban trend contrasted by positive rural access improvements over the past decade (UNICEF and WHO 2015). Open defecation is more common in rural areas, though remains below 20 percent, a relatively low value in the regional context.

The poor in the Democratic Republic of Congo have significantly less access to improved water and sanitation than the wealthier. Access to improved water and sanitation is almost 10 percent lower among the poor than the non-poor. Stratification of access increases with wealth: among the top 10 percent of wealthiest households, over 95 percent have access to improved water and almost 35 percent to improved sanitation, but only 22 percent and 17 percent of the bottom 40 percent, respectively. Location is critically important: the poor in larger cities tend to have much better WASH services than small-town and rural households at the same or even higher level of income (figure ES.1).

**The New Sustainable Development Goals (SDGs) and the Water Quality Problem**

The SDGs set ambitious new targets for WASH: universal access to truly safe facilities by 2030. In the new framework, the aim is to provide all Congolese people with water sources that are not only technically “improved” as the MDGs targeted, but on premises, continuously available, and free of contamination. For sanitation, the new SDG target also goes beyond the MDG aim of non-shared “improved” facilities and, in addition, requires a handwashing facility with water.
and cleansing agent, as well as the safe disposal of fecal matter. As figure ES.2 illustrates, such high-quality access is currently very rare in the Democratic Republic of Congo.

Setting the bar higher is necessary, however, because “improved” sources are just not safe enough. The WPD carried out water quality tests across the Democratic Republic of Congo showing extremely widespread fecal contamination even of sources that are “improved” according to the definition of the Joint Monitoring Programme of the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF). More than a third of piped water tested in Kinshasa was contaminated with *Escherichia coli* at point of use, and in some provincial towns and rural areas contamination of improved water exceeded 80 percent of tested samples. Similarly, few households have handwashing facilities with soap, and even the biggest cities of the Democratic Republic of Congo lack fecal sludge treatment sites. Thus, most fecal sludge from improved toilets is ultimately dumped unsafely or leaks into the environment. This contamination is a critical problem and has contributed to a silent emergency of malnutrition.
A Silent Emergency: Malnutrition and Its Link to Poor WASH

A silent emergency is placing Democratic Republic of Congo’s poor and rapidly growing population at risk of permanent disconnect: widespread malnutrition, to which WASH is a key contributing factor. Food insecurity and malnutrition are rampant in the Democratic Republic of Congo. Data from the latest (2014) Demographic and Health Survey (DHS) (Enquête Démographique et de Santé [EDS]) reveals that a staggering 43 percent of Congolese children under five years are chronically malnourished (figure ES.3). A survey conducted by the WPD showed just how widespread anxiety about nutrition is. Even in Kinshasa, in 2016, almost 60 percent of the non-poor and over 75 percent of the poor had worried about not having enough to eat over the past 12 months.

Malnutrition is an acute and long-term health risk and is linked to poor WASH. Stunting is a powerful risk factor and is associated with 53 percent of infectious disease-related deaths in developing countries. Malnutrition can also have long-lasting negative effects, including a reduced capacity for manual work, poor mental development, and behavioral abnormalities. This risks long-term disadvantages for affected individuals and compromises the development of the Democratic Republic of Congo as a whole. A growing literature shows how poor WASH contributes to malnutrition by transmitting pathogens and infections that inhibit nutritional uptake through diarrhea, parasites, enteric inflammation, and dysfunction (Cumming and Cairncross 2016).

This diagnostic confirms that unsafe WASH is closely related to morbidity and mortality in the Democratic Republic of Congo. WASH is one of the top five risk factors associated with death and disability in the country (IHME 2015). The WPD survey data provides evidence for a significant reduction in the probability of stunting among children under five years old in households with access to safely managed water (SDG Target Tier, free of contamination). A significant link between poor WASH access and anemia, which reinforces other WASH-related malnutrition effects, is also shown. These links highlight the importance of the SDG’s focus on water quality and the sanitation service chain to truly improve human health and long-term development.

Focusing on Core WASH Service Challenges and Their Institutional Origins

Progress toward the SDGs will require a focus on core WASH service gaps. In the water sector, four challenges stand out: the erosion of urban supply in the face of rapid urbanization, the inequality in access between major cities and marginal urban areas on the one hand, and rural zones on the other, as well as the cross-cutting problem of water quality. In the sanitation

Figure ES.3: Pervasive Malnutrition in Democratic Republic of Congo

Source: Demographic and Health Survey (Enquête Démographique et de Santé) 2014; World Bank calculation.
sector, the rural *Ecoles et Villages Assainis* ([EVA] Healthy Schools and Villages) program has led to progress, but is struggling to scale and sustain results. In cities, decades of neglect have led to a near total absence of public services. These gaps cannot be closed by more finance alone, but require new efforts to create institutions that can deliver safely managed WASH services in the long run.

The institutional structure of the Democratic Republic of Congo’s WASH sector continues to be characterized by three interlinked challenges: institutional fragmentation, capacity gaps, and a bias toward specific institutions and services. The WASH sector remains split between seven ministries, reducing the efficiency and coherence of policy making and implementation. Capacity gaps are a critical problem, especially as a decentralization process has increasingly shifted responsibilities to underresourced and inexperienced local governments. In an overall divided, underresourced, and low-capacity sector, the limited finance available has been biased to two institutional channels: the urban water utility *Régie de Distribution d’Eau* (REGIDESO) and the EVA program led by UNICEF and the Ministry of Public Health (figure ES.4) and associated services.

Concentrating sparse funds in this manner has a strong justification, but also clear challenges. Given sector fragmentation, low absorption capacity, and almost universally high needs, it is rational to maximize impact by focusing on the relatively best-equipped counterparts or programs and pick low-hanging fruit. A consequence of this strategy, however, has been a focus on subsectors and geographic areas that are already better served, and a perpetuation of the weakness of disadvantaged institutions and service areas.

Core service challenges are thus linked to institutional weaknesses. The erosion in urban water supply and increasing gaps between major and minor cities are directly related to the concentration of funds on REGIDESO, which is struggling to reform itself and reach beyond its traditional service centers. The weakness of alternative supply models and rural institutions has further aggravated REGIDESO’s limitations, while the lack of policy leadership and regulation has prevented even a systematic understanding of the scale of water quality problems, much less enforcement. Urban sanitation services are nonexistent due to the lack

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**Figure ES.4: External Funding for WASH, by Urban or Rural Area and Subsector (Disbursements and Commitments, 2005–20)**

![Graph showing external WASH funding by urban and rural areas](image)

**b. External WASH funding by subsector**

![Graph showing external WASH funding by subsector](image)

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*Source:* World Bank calculation.

of policy leadership, disengaged municipalities, and historic non-involvement of REGIDESO, which limit the implementation capacity of the subsector. While the EVA program has done better in attracting funds to rural areas, it has struggled to sustain and scale-up results due to weak ownership and lack of support from rural state institutions for its nongovernmental organization (NGO)-driven service-delivery model. These core institutional weaknesses, main sector specific constraints and resulting service gaps are summarized in figure ES.5.

The New Water Law as an Opportunity for Change

A new Water Law and Policy (2015–16) offer a unique opportunity for the sector, providing reform momentum and a legal basis to address many of the institutional weaknesses that underlie service gaps. The impact of the new Water Law and associated policy on the institutional structure is potentially profound. A dedicated water ministry, regulator, and potential re-ordering of the sanitation sector could decisively reduce fragmentation and provide stronger leadership on issues such as water quality. The recognition of the principle of at-cost tariffs could improve cost recovery, while investments in marginal urban areas could be boosted by the shift of responsibility for infrastructure to provincial governments, and support for delegated management and autonomous systems. Decentralization of responsibility could also strengthen local government’s role in donor-financed rural WASH programs. A key challenge will be realizing the law’s potential in face of an entrenched sector structure and complex political reality.

The law’s implementation must navigate not only the complexity and inertia of the Democratic Republic of Congo’s vast state apparatus during an ongoing political crisis, but an incomplete decentralization effort. The 2006 Constitution defined the Democratic Republic of Congo as a unitary, but decentralized state and the number of provinces increased from 11 to 26 in the process. Yet, the decentralization agenda remains incomplete. Provincial revenues have consistently been below the mandated share and central government has continued to assert its authority, leaving new local government entities with limited means and capacity to govern and deliver basic services such as WASH. Realizing the law’s potential in this context will be no mean feat.
A Country at the Crossroads

The Democratic Republic of Congo is at a major crossroads: after a decade of little progress, the country must rise to the challenge of the SDG targets in a context of state fragility, high poverty, demographic growth, and urbanization. While the challenge is immense, making significant progress is critical to avoiding a permanent disconnect of the country’s vulnerable population. The analysis and key recommendations of this diagnostic suggest priorities for government and its partners to focus their efforts and maximize the chance of real improvement in the WASH sector and, thus, human health and development.

Key Facts and Messages

The most important facts and messages emerging from the Democratic Republic of Congo WASH Poverty Diagnostic, which provide a basis for further awareness raising, planning, and discussions with sector stakeholders, are the following:

**Fact 1: Drinking water quality is low across the Democratic Republic of Congo and responsible for negative health outcomes.**

Poor water quality is a core service gap at the heart of the Democratic Republic of Congo’s WASH challenges. Low quality of supply and treatment, low levels of sanitation access, fecal pollution of the environment, as well as unsanitary handling and storage of drinking water by households conspire to cause widespread contamination. The WASH Poverty Diagnostic shows that pollution of water with *E. coli* at point of use is common across improved and unimproved sources, is high in the capital Kinshasa, and near universal in some rural areas. This contributes to extraordinarily elevated levels of water-related disease and child malnutrition and thus represents a direct threat to human health and development in the Democratic Republic of Congo.

**Message 1: Prioritize water quality in line with the new SDG targets.** The new WASH SDG targets emphasize quality of access. Eliminating water contamination is the most important aspect of this. Water quality needs to be prioritized at all levels, from the normative-regulatory to programs and project implementation. Water quality should be a focus of the expected new water ministry and regulator. Donor interventions should explicitly target water quality instead of only access, as contaminated “improved” facilities are part of the problem. Approaches integrating water with sanitation improvements are critical to reduce cross-contamination. Monitoring of water quality must become more common and integrated into projects, facilitated by simple, cheap new testing technology, such as the one used by this diagnostic. Until reliable infrastructure is in place, fail-safe interventions directly targeting water quality, such as point-of-use treatment, may help alleviate health impacts among the most vulnerable.

**Message 2: Strengthen cross-sectoral coordination around the core issue of child malnutrition.** Child malnutrition is one of the most serious long-term health threats to which poor water quality contributes, along with other key factors such as food security and education. Focusing on child malnutrition can be a cross-sectoral rallying point for a forward-looking, consensus-building approach to maximizing the impact of WASH interventions. A new WASH Poverty Risk
Fact 2: Access to sanitation is lagging behind access to water and is a particularly grave health risk in urban areas.

Access to improved sanitation is significantly lower than access to water. Handwashing and safe disposal of fecal sludge, as targeted by the SDGs, are virtually unknown. This is a particularly public health risk in densely settled, rapidly growing cities, such as the capital Kinshasa, which has recently suffered an unprecedented cholera outbreak. Decades of public inaction have seen the number of urban dwellers without improved sanitation rise from barely 6 million in 1975 to over 30 million today.

Message 3: Break with decades of inaction in urban sanitation. A comprehensive solution to the urban sanitation problem in the Democratic Republic of Congo is unlikely in the medium term due to limited financing and absorption capacity. However, it is critical to lay the foundation for larger-scale future action by resolving institutional fragmentation and breaking with decades of public inaction. The new Water Law foresees a ministerial decree to fix “norms, responsibilities, and organization of the development, management, functioning, and financing of public sanitation.” This is an opportunity to re-order policy leadership, clearly assign implementation responsibility to municipal level, and pilot well-defined, replicable projects targeting a clear local impact and commencing a cycle of institutional and service improvement. Communication programs to better convey the health threat of unsafe WASH should be an integral part of any such pilots.

Fact 3: Inequalities in WASH access persist between major cities, marginal urban areas, and rural zones.

In the Democratic Republic of Congo, location is a critical determinant of improved water and sanitation access. The poor in major cities tend to have better access than the non-poor in marginal towns and rural areas. This is due to network effects, as well as the concentration of public investments on key agglomerations. While concentrating scarce resources can be efficient, a consequence is the perpetuation of the weakness of disadvantaged institutions and service areas. Improving the quality of supply in fast-growing major cities will remain critical, but achieving the universal access target of the SDGs will be impossible without a more balanced and effective approach in peri-urban areas, secondary towns, and the vast rural hinterlands.

Message 4: In the urban WASH sector, seize the opportunity to leverage complementary investment channels that can help respond to the growing needs of an expanding urban population. The new Water Law not only supports the reform of the national utility with its emphasis on decentralization and cost recovery, but also allows underserved urban areas to be targeted more directly through alternative investment channels beyond REGIDESO. The law supports investments through decentralized provinces, allows delegated management models
with private or public operators, and recognizes user-managed autonomous schemes. This ends REGIDESO’s privileged legal position, heightens competitive pressure, and increases investment opportunities. Donors should provide support to piloting alternative, decentralized investment channels.

**Message 5: In the rural WASH sector, re-organize and strengthen provincial WASH departments.** The EVA Program has reached up to 10 percent of the rural population with WASH interventions, but its NGO-driven implementation model has struggled to sustain its impact and scale up further. Sustainability has been a particular concern with up to 80 percent of intervention sites not maintaining the improved sanitation target at first revisit. To increase absorption and sustainability, local government institutions—now formally empowered through the Water Law—must build their capacity. In a country of the Democratic Republic of Congo’s size, a scale-up toward the SDG universal access targets cannot be realized without a sustained strengthening of local governments. This should be reinforced with better prioritization of intervention sites, continued cost control, a wider array of technologies (including small piped schemes where appropriate) and cross-sectoral interventions to achieve maximum impact at minimum costs.

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**Fact 4: The new Water Law creates a legal basis for addressing long-standing institutional weaknesses.**

The new Water Law and associated Water Policy provide a specific legal framework for the WASH sector in the Democratic Republic of Congo for the first time. This framework gives a strong basis for major institutional reforms including a dedicated water ministry and regulatory authority, the decentralization of WASH investments, the separation of asset ownership and delegated service provision, the recognition of autonomous systems managed by user associations, and the principle of at-cost tariffs. This presents an opportunity to start addressing long-standing sector weaknesses, such as institutional fragmentation, over-centralization of service provision, lack of regulation, and the absence of cost recovery, which have constrained services.

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**Message 6: Strengthen institutional ownership of the new Water Law to maintain its momentum.** Implementing the new Water Law and Policy will require wide-ranging changes to an entrenched sector structure. This is difficult not only due the size, complexity, and inertia of the Democratic Republic of Congo’s vast state apparatus, but also the ongoing constitutional crisis that has diverted political energy away from ambitious reforms. To maintain the momentum of the law, a dedicated implementation unit should be supported within the Ministry of Energy and Water Resources. This unit should draw up concrete proposals to prepare the institutional reorganization, draft the decrees envisaged in the law, advise provincial governments and counterparts on its implications, mediate conflicts arising from its application, resist attempts to circumvent the law, support pilot investment projects in line with the law’s innovations, and act as core future water ministry and proto-regulator. The issue of water quality could be a natural first thematic focus.

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**References**


