COUNTRY PROFILES



7.1 Introduction

The country profiles in this chapter provide information about the water and sanitation sector in the 54 countries of Africa.

Each country profile examines four main areas: water resources, wastewater management, water and sanitation provision, and legal and institutional frameworks. The data are displayed graphically to provide readers with easily understandable snapshots of the water and sanitation situation. Each profile also includes a country map for locational context and a graphic to show water use of the three major consumptive use sectors (agriculture, municipal and industry).

The profiles benchmark the process of tracking country status and progress towards meeting Sustainable Development Goal (SDG) 6: Ensure availability and sustainable management of water and sanitation for all. Such progress is partly informed by the countries' achievements of Millenium Development Goal 7.C on sustainable access to safe drinking water and basic sanitation. Water and sanitation ladders are also provided to help benchmark and monitor progress across the different indicators.

The last section of the profiles highlights the countries' legal, policy and institutional frameworks for water and sanitation. In some countries, significant change is ongoing, meaning that situations may have changed before the publication of this report.



Most countries in Africa failed to meet their target for sanitation under the Millennium Development Goals. There is hope that significant progress will be made under the Sustainable Development Goals

Researching the data in this chapter presented some challenges. In order to allow for consistent and comparable profiles, data were obtained from only a few select sources. The Africa Water Sector and Sanitation Monitoring and Reporting System established by the African Ministers' Council on Water (AMCOW) was a key information source for these profiles. However, while some countries had timeseries data for many indicators, others had little or no data. Information on wastewater management was particularly hard to find and points to an information gap that urgently needs to be addressed for the continent. In addition, access to sanitation datasets related to SDGs' definitions is hardly available, and this presents an urgent monitoring and evaluation challenge that needs to be addressed



Africa is the second driest continent in the world after Australia

Algeria

Water resources

Algeria covers a total land area of 2,381,740 km², of which 87 per cent is desert, 9 per cent is semi-arid and 4 per cent is coastline or mountain ranges (Food and Agriculture Organization of the United Nations [FAO] 2016). Average rainfall is 56 mm/year and droughts are common (African Ministers' Council on Water [AMCOW] 2018). Surface run-off and groundwater recharge rates are low, and even during the rainy season, stream flow is not continuous, with internal rivers only flowing for 10–75 days a year (FAO 2016). Water availability is about 5,410 m³/year per person and the pressure on groundwater resources is 188 per cent (AMCOW 2018).

Algeria is one of the most water-stressed countries in the world. The aqueduct water stress for all sectors measured in 2010 was 3.04 and is projected to increase to 4.17 by 2040 (Luo et al. 2015). A score of 4.17 indicates that there is extremely high competition among water users relative to available surface-water resources. Water stress comes as a result of water scarcity and may result in crop failure, food insecurity, water usage conflicts and a decline in service levels (AMCOW 2011).



Water availability	
m³/per	rson and year
Total renewable freshwater	334
Total water withdrawal	322
Internal renewable water sources	329
of which are surface water	267
pressure on surface water	76.9%
of which are groundwater	61.9
pressure on groundwater	188.0%
Water stress	96.0%
Source: AMCOW 2018; FAO 2018.	









There is a dearth of recent data regarding wastewater management. Available data show that 820 million m³/year of municipal wastewater was produced in 2012 and that 324 million m³/year was treated in the same year (FAO 2018). In 2012, there were 138 treatment plants, a significant increase from 44 in 2001, which operated with a capacity of 270 million m³/year of treated wastewater (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	6.4	4.2	2.3	0.8
	Proportion of population using safely managed sanitation services (%)	21.2	20.5	19.9	19.1
	Proportion of population with basic handwashing facilities on premises (%)			83.1	83.5
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				17.7 (2018)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)				14.1
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				96
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				48.0 (2017)

Source: United Nations Statistics Division (UNSD), 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water Resources Hydrographic Basin Agencies (ABH) National Agency for Water Resources (ANRH) National Office for Irrigation and Drainage National Office for Sanitation National Dam and Inter-Basin Transfer Agency Ministry of Land-use Planning and the Environment (MATE) National Waste Agency (NDA) National Conservatory of Environmental Training (CNFE) Directorates of the 48 wilayas Ministry of the Interior and Local Governments (MICL), with financial support for municipalities
Presence of a functional water regulator	Water Utilities Regulatory Authority
Environment for private sector participation	 No public-private partnership unit Regulatory Authority for Public Procurement and Services and the Ministry of Finance Presidential Decree No. 15-247 of 2 Dhou Zl Hidja 1436 of 2015 covering public procurement regulations and delegation of public services. Public-private partnerships in the water sector to follow Water Law No. 05-12 of 2005 Desalination plant in Djerba; contracts for the management of drinking water in Algiers, Oran and Constantine.
Legal, policy and strateg	gy frameworks
Current enabling policies	 The National Water Sector Development Programme 2006–2025 adopted in 2007 and integrated into the National Land-use Planning Scheme (SNAT) is the main water policy
Current enabling laws	 Water Law No. 05-12 of 2005 Law No. 03-10 of 19/07/2003 on the protection of the environment and sustainable development

Source: FAO 2016.

Angola

Water resources

On average Angola receives annual rainfall of 1,010 mm/year (AMCOW 2018). The north has two rainy seasons, while the arid south has one (FAO 2016). Water availability is 5,750 m³/year per person (AMCOW 2018).

The aqueduct water stress for all sectors measured in 2010 was 1.13 and is projected to increase to 1.21 by 2040 (Luo et al. 2015). A score of 1.21 indicates that there is low to medium competition among water users relative to available surface-water resources. Unlike most African countries, Angola's agricultural water withdrawals as a proportion of total water withdrawals is less than municipal or industrial usage. This could partly be attributed to the effects of neglect of the agricultural sector arising from the civil war between 1975 and 2002. By 2018, 50 per cent of the population was employed in the agriculture sector, whose value added contribution to gross domestic product (GDP) was 10 per cent in 2017, though this has been slowly increasing over the years (World Bank 2018). Rebuilding the agricultural sector is a priority for creating employment opportunities and increasing competitiveness.



Water availability	
m	³ /person and year
Total renewable freshwater	5 750
Total water withdrawal	27.7
Internal renewable water sources	5 740
of which are surface water	5 620
pressure on surface water	r no data available
of which are groundwater	2 250
pressure on groundwater	no data available
Water stress	0.40%
Source: AMCOW 2018; FAO 2018.	









There is a dearth of recent data regarding wastewater management. Available data show that the amount of wastewater produced was expected to reach 381 million m³/year in 2017, 80 per cent of which is discharged directly into water bodies without treatment (International Trade Administration [ITA] 2017).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	51.3	45.3	39.1	32.8
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			24.1 (2012)	24.6
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)	108.7 (2005)			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)	1.9 (2005)			0.4
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				37.0 (2017)

Source: UNSD, 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Energy and Water National Directorate of Water Supply and Sanitation (DNAAS) State Secretariat for Water (SEA) National Water Resources Institute (INRH), 2010 River Basin Management Cabinets
Presence of a functional water regulator	Regulator Institute for Services of Electricity, Water Supply and Waste Water Sanitation (HIRSEA), 2016
Level of participation in transboundary water infrastructure and institutional arrangements	 Permanent Joint Technical Commission (PJTC) on the Cunene River, set up with Namibia Permanent Okavango River Basin Water Commission (OKACOM), established in 1994 with Namibia and Botswana Zambezi Watercourse Commission (ZAMCOM), set up in 2004 with Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe Observer status in the International Commission of the Congo-Oubangui-Sangha Basin (CICOS)
Environment for private sector participation	• Law No. 2/11 on public-private partnerships of 14 January 2011 and the General Plan for Public-Private Partnerships.
Water pricing facility	Tariff code for energy and drinking water
Legal, policy and strate	gy frameworks
Current enabling policies	 National Water Plan 2017 Agua por Todos [Water for All] Presidential Decree No. 214/15 approving the National Strategic Plan for Territorial Management (PLANEAT) 2015–2025
Current enabling laws	 Law No. 6/02 of 21 June on water use Law No. 5/87 approving the Sanitary Regulation of 1987 Presidential Decree No. 83/14 approving the Regulation of Public Supply of Water and Water Disposal Sanitation of 2014 Presidential Decree No. 82/14 approving the Regulation of General Use of Water Resources of 2014

Sources: FAO, 2018; World Bank, 2018b.

Benin

Water resources

Benin has an annual rainfall of 1,039 mm that varies greatly depending on the area and time of year. Water availability is around 2,490 m³/year per person (AMCOW 2018).

The aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.01 by 2040 (Luo et al. 2015). A score of 0.01 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
m	³ /person and year
Total renewable freshwater	2 490
Total water withdrawal	14.2
Internal renewable water sources	1 410
of which are surface water	1 240
pressure on surface water	0.31%
of which are groundwater	170
pressure on groundwater	4.44%
Water stress	0.60%











There is a dearth of recent data regarding wastewater management. According to the World Bank (2018), by 2015 only 13.9 per cent of the population had at least a basic level of sanitation, which is an indicator of very poor waste management. In Cotonou, the capital city, wastewater is disposed of at the Industrial Society of Urban Equipment and Sanitation plant, which was designed to treat 180 m³ of wastewater per day, but received 477 m³ on average per day between 2008 and 2010, with 70 per cent of this coming from latrines (Hounkpe et al. 2014).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	67.7	63.7	59.5	55.2
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)	1.0	3.7	6.8	10.1
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	24.8			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)	1.0			0.6
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				63.0 (2017)

Source: United Nations Statistics Division (UNSD), 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Energy and Water Engineering (MEE) National Water Company of Benin (SONEB) Directorate-General for Water, in charge of IWRM and rural and peri-urban water supply National Agency for Drinking Water in Rural Areas (ANAEPMR) Directorate for Hygiene and Basic Sanitation, Ministry of Health 			
Environment for private sector participation	 Law No. 2001-07 Public-Private Partnership Support Unit (CAPPP) National Directorate of Public Procurement Control (DNCMP) Public Procurement Regulatory Authority (ARMP) 			
Legal, policy and strategy frameworks				
Current enabling policies	 National Sanitation Policy, 1995 National Water Policy, 2008 National Strategy for Rural Water Supply 2005–2015 Strategy for Urban Water Supply 2006–2015 National Sanitation Development Plan 2009–2018 National Action Plan for Integrated Water Resources Management (PANGIRE), November 2011 National Action Plan for Integrated Water Resources Management (PANGIRE) Operationalization Strategy (2016–2020) 			
Current enabling laws	 Law No. 2010-44 of 24 November 2010 on water management in the Republic of Benin Decree No. 2007-310 relating to the conditions of the control of cold drinking water metres in the Republic of Benin of 2007 Decree No. 2001-094 setting quality standards for drinking water of 2001 Decree No. 2011-573 of 31 August 2011 establishing the master plan for the development and management of water 			

Sources: FAO, 2016; Policy and Operations Evaluation Department, 2011; United States Agency for International Development, 2010a.

Botswana

Water resources

Botswana is a semi-arid country with annual rainfall of 416 mm (AMCOW 2018). Drought is a recurring problem. Surface run-off and groundwater recharge rates are low and even during the rainy season, stream flow is not continuous, with internal rivers only flowing for 10–75 days a year (FAO 2016). Water availability is about 5,410 m³/year per person (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 1.48 and is projected to increase to 3.00 by 2040 (Luo et al. 2015). A score of 3.00 indicates that there is medium to high competition among water uses relative to available surface-water resources. Agricultural water usage is not as high as in some other African countries. The recurrent droughts have hindered the growth of the agricultural sector and its contribution to GDP has remained low, fluctuating between 1.8 and 2.7 per cent in the 2006–2017 period. Just over 25 per cent of the population is employed in this sector (World Bank 2018).



Water availability	
m³/perso	n and year
Total renewable freshwater	5 410
Total water withdrawal	89.3
Internal renewable water sources	1 060
of which are surface water	354
pressure on surface water	8%
of which are groundwater	751
pressure on groundwater	7.65%
Water stress	1.7%

Source: AMCOW 2018; FAO 2018 .









There is a dearth of recent data regarding wastewater management. Available data show that the amount of municipal wastewater produced in 1990 was 0.011 (109/m³/year) and that 0.008 (109/m³/year) was treated in 1999 (FAO 2018).

Water and sanitation provision



Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	21.2	19.4	17.9	16.9
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				50 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				7.69 (2017)
Water-use efficiency	Water-use efficiency (US\$/cm ³)				74.3
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.7
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				41 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Minerals, Energy and Water Resources Department of Water Affairs Department of Waste Management and Pollution Control Department of Geological Surveys Water Utilities Corporation (WUC), responsible for water supply and wastewater treatment
Presence of a functional water regulator	 Botswana Energy and Water Regulatory Agency Water Resources Board
Level of participation in transboundary water infrastructure and institutional arrangements	 OKACOM, established in 1994 following an agreement with Angola and Namibia Limpopo River Basin Commission, 2003 Zambezi Watercourse Commission, 2004 Protocol on Shared Watercourses in the Southern African Development Community (SADC), 2000
Environment for private sector participation	Public-Private Partnership Policy and Implementation Framework, 2009
Legal, policy and strateg	y frameworks
Current enabling policies	 National Water Master Plan, 1991 National Water Master Plan Review, 2006 National Water Policy, 2012 Integrated Water Resources Management and Water Efficiency Plan 2013–2030
Current enabling laws	 Water Utilities Corporation Act (Chapter 74:02), 1970 Water Act, 1968 Boreholes Act, 1956 Waterworks Act, 1962 Town Council (Public Sewers) Regulations Mines and Minerals Act

Sources: Dikobe 2013; FAO 2016; WUC 2015.

Burkina Faso

Water resources

Burkina Faso receives an annual rainfall of 899 mm (AMCOW 2018). The country has three climatic zones with rainfall increasing from north to south (FAO 2016). Water availability is about 899 m³/year per person (AMCOW 2018).

The aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.39 by 2040 (Luo et al. 2015). A score of 0.39 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
	m ³ /person and year
Total renewable freshwater	476
Total water withdrawal	61.4
Internal renewable water sources	476
of which are surface water	476
pressure on surface w	vater 12.6%
of which are groundwater	0
pressure on groundwa	ater -
Water stress	12.90%
Source: AMCOW 2018; FAO 2018 .	









There is a dearth of recent data regarding wastewater management. Available data show that 48.7 million m³/year of municipal wastewater was produced in 2009 and the 2.4 million m³/year was collected in 2011, with 1.4 million m³/year treated in the same year (FAO 2018).

Water and sanitation provision



Jsing MDG 7.	.C to benchmark	progress towards a	chieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	71.4	64.1	55.8	47.9
	Proportion of population using safely managed sanitation services (%)	5.3	7.7	10.2	11.6
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)			5.2 (2005)	
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)			7.8	12.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				63 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 General Directorate of Wastewater and Excreta Sanitation (DGAEUE), 2008 General Directorate of Water Resources (DGRE) National Office of Water and Sanitation (ONEA) General Directorate responsible for water and sanitation under the Ministry of Agriculture, Water and Fisheries (MAHRH) Five water agencies for decentralized water management
Presence of a functional water regulator	MAHRH, Ministry of Health and Ministry of the Environment, Green Economy and Climate Change
Environment for private sector participation	 Law No. 020-2013/NA of 23 May 2013 on the legal regime of public-private partnerships in Burkina Faso
Water pricing facility	 Law No. 058-2009/AN on financial contributions for water, 2009 Law No. 058-2009/AN of 15 December 2009 establishing a parafiscal tax for the benefit of water agencies
Legal, policy and strated	gy frameworks
Current enabling policies	 Action Plan for Integrated Water Resources Management (PAGIRE) National Sanitation Policy and Strategy, 2007 National Water Policy, 2009 Implementation Strategy for the treatment of wastewater and excreta in rural areas, 2009
Current enabling laws	 Law No. 023/94/ADP on the Public Health Code, 1994 Law No. 005/97/ADP on the Environment Code, 1997 Law No. 002-2001/AN on water management guidance, 2001 Decree No. 2007-4233/PRES/PM/MAHRH/MEF/MECV/MATD/MS/SECU/MJ/MRA/MCE on the definition, organization, powers and functioning of the water police, 2008

Sources: FAO 2016; World Bank 2018b; Water and Sanitation Program (WSP) 2011a.

Burundi

Water resources

All of Burundi's water comes from precipitation and feeds a dense network of water bodies (FAO 2016). Average rainfall is 1,274 mm/year and water availability is 1,274 m³/year per person (AMCOW 2018).

The aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.30 by 2040 (Luo et al. 2015). The score of 0.30 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
	m ³ /person and year
Total renewable freshwater	5 750
Total water withdrawal	27.7
Internal renewable water sources	5 740
of which are surface water	5 620
pressure on surface w	ater no data available
of which are groundwater	2 250
pressure on groundwa	ater no data available
Water stress	0.50%
Source: AMCOW 2018; FAO 2018 .	









While there is a dearth of recent data regarding wastewater management, information indicates that sewerage and wastewater treatment services are grossly inadequate. For instance, it is estimated that service provision in the capital, Bujumbura, only covers 40 per cent of the city's needs and that around 90 per cent of the population in most peri-urban areas does not have sanitation facilities (Fortune of Africa n.d.). Most wastewater generated in Bujumbara is disposed of in storm drains that channel it untreated into Lake Tanganyika. Several other cities do not have sewerage systems or wastewater treatment facilities (Fortune of Africa n.d.).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	2.4	2.7	2.9	3.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		5.9 (2006)	6.1	6.3 (2014)
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)	4.3			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				32.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water, Energy and Mines (MWEM) Directorate-General for Water and Energy (DGEE) Directorate of Water Resources (DRH) Directorate-General of Rural Water and Electricity (DGHER) Municipal Engineering Services (SETEMU) – sewerage and wastewater treatment services in urban areas 			
Presence of a functional water regulator	Agency for Control and Regulation of Water and Electricity (ACR)			
Environment for private sector participation	• Law No. 1/14 of 27 April 2015 on the General Scheme for Public-Private Partnership Contracts			
Water pricing facility	Water tariff policy for rural and urban areas			
Legal, policy and strated	gy frameworks			
Current enabling policies	 Burundi National Sanitation Policy and Operational Strategy for Burundi Vision 2025 National Water Master Plan (PDNE) 			
Current enabling laws	 Decree No. 100/189 of 25 August 2014 on the determination and establishment of protection areas for water intended for human consumption Law No. 1/02 of March 26, 2012 on the Water Code in Burundi 			

Sources: FAO 2016; World Bank 2018b.

Cabo Verde

Water resources

The island of Cabo Verde has annual rainfall of 228 mm, and water availability of about 38.4 m³/year per person (AMCOW 2018). Desalination is a major but expensive process of providing clean water due to the use of imported fuel to power electric generators. There were no data on the water stress index for the country designed by Luo, Young and Reig (2015).

Although agriculture contributed just 6 per cent to GDP and employed 67 per cent of the population in 2017, water usage in the sector is extremely high (World Bank 2018). The Government has made agriculture a significant sector in the transformation of the economy. The expansion of arable land, including water for agriculture, is a crucial part of its strategy.



Water availability	
m³/per	son and year
Total renewable freshwater	5 410
Total water withdrawal	89.3
Internal renewable water sources	1 060
of which are surface water	354
pressure on surface water	8%
of which are groundwater	751
pressure on groundwater	7.65%
Water stress	1.70%
Source: AMCOW 2018; FAO 2018 .	









There is a dearth of recent data regarding wastewater management. However, available data show that 38 million m³/year of municipal wastewater was produced in 2007, which increased to 39 million m³/ year in 2009 (FAO 2018). In 2017, a new wastewater treatment plant was opened in Cabo Verde on the island of Sal.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	23.3	25.9	28.1	28.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	29.4			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.7
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 National Water Council (CNAG) National Water Resources Management Institute (INRGH)
Presence of a functional water regulator	• Economic Regulatory Agency (ARE)
Environment for private sector participation	Law No. 88/VIII/2015 of 14 April 2015 on the Public Procurement Code in Cape Verde
Legal, policy and strated	gy frameworks
Current enabling policies	 Water Resources Master Plan, 1993 National Integrated Water Resources Management Action Plan
Current enabling laws	 Legislative Decree No. 3/2015 approving the Water and Sanitation Code (CAS) Decree-Law No. 8/2004 ruling on water quality and classification Decree-Law No. 75/99 establishing the legal regime of licence and concession for water resources use, 1999 Decree No. 7/2017 approving the Statutes of the Water and Sanitation Fund (FASA)

Sources: FAO 2016; World Bank 2018b.

Cameroon

Water resources

Cameroon has three climatic zones with rainfall gradually increasing from north to south. The country's annual rainfall is 1,604 mm, with a per capita water availability of roughly 42.7 m³/year (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.01 and is projected to remain the same by 2040 (Luo et al. 2015). A score of 0.01 indicates that there is low competition among water users relative to available surfacewater resources.



Water availability

- m³/per	rson and year
Total renewable freshwater	2 490
Total water withdrawal	14.2
Internal renewable water sources	1 410
of which are surface water	1 240
pressure on surface water	0.31%
of which are groundwater	170
pressure on groundwater	4.44%
Water stress	0.60%

Source: AMCOW 2018; FAO 2018.









Recent data on wastewater management are lacking, but historical records show that 66.2 million m³/year of municipal wastewater was generated in 2008 (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	7.4	7.3	7.2	7.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			2.6	2.7
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	12.3			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.6
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				34.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework					
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water Resources and Energy Cameroon Water Utilities Corporation Camerounaise des Eaux [Cameroonian Water] National Water Committee 				
Presence of a functional water regulator	Ministry of Water Resources and Energy				
Environment for private sector partnership	 Law No. 2006/012 of 29 December 2006 on the general scheme of partnership contracts Support Council for the Realization of Partnership Contracts, established in 2009 				
Water pricing facility	 Decree No. 2005-3089-PM of 29 August 2005 specifying the rules of assessment, recovery and control of the sanitation tax and the water withdrawals levy 				
Legal, policy and strated	gy frameworks				
Current enabling policies	 Sectoral policy letter on urban water supply (April 2007) Rural Drinking Water Supply and Sanitation Policy and 2008–2015 Action Plan Regulation on the Provision of Drinking Water Distribution Service (December 2010) National Liquid Sanitation Strategy (August 2011) Sectoral policy letter on liquid sanitation (April 2011) 				
Current enabling laws	 Law No. 98/005 establishing the water regime of 1998 Decree No. 2001/216 establishing a trust account for the financing of sustainable water and sanitation development projects 				

Sources: CAMWATER 2018; FAO, 2016; World Bank 2018b; World Bank 2018c.

Central African Republic

Water resources

The Central African Republic has average rainfall of 1,343 mm and water availability of about 26,600 m³/year per person (AMCOW 2018). Despite having a rich hydrographic network, the country's water quality and quantity are in decline (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to remain the same by 2040 (Luo et al. 2015). This score indicates that there is low competition among water users relative to available surface-water resources. Water use in the agricultural sector is very low; this could partly be attributed to the insecurity in the country, which has displaced large populations and prevented people from engaging in agricultural activities.



Water availability	
m³/p	erson and year
Total renewable freshwater	476
Total water withdrawal	61.4
Internal renewable water sources	476
of which are surface water	476
pressure on surface water	12.6%
of which are groundwater	0
pressure on groundwater	-
Water stress	12.90%
Source: AMCOW 2018; FAO 2018 .	

Bangui







Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	22.9	23.5	23.9	23.9
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		16.4 (2006)	16.5	16.6
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)			12.3 (2005)	
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				12.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework					
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Mines, Energy and Hydraulics Ministry of Development of Energy and Water Resources (MDEWR) National Agency for Rural Water Supply and Sanitation Société Nationale des Eaux [National Water Company] (SNE), 1975 Société de Distribution d'Eau de Centrafrique [Central African Water Distribution Company] (SODECA), 1991 Water Supply and Sanitation Sector Committee, 2009 Water Sector Round Table 				
Presence of a functional water regulator	Regulatory Agency for the Water Supply and Sanitation Sector (ARSEA)				
Environment for private sector participation	• Law No. 2008-17 of 6 June 2008 on the Code of Public Contracts and Public Service Delegations				
Legal, policy and strategy frameworks					
Current enabling policies	 Water Supply and Sanitation Sector Action Plan (PASEA) National Water Supply and Sanitation Policy and Strategies (PSNEA) 				
Current enabling laws	 Law No. 06.001 of 12 April 2006 on the Water Code of the Central African Republic Decree No. 62-278 on well drilling, 1968 				

Sources: FAO 2016; World Bank 2018b; WSP 2011b.



Wastewater management

There are no recent data regarding wastewater management.

Water and sanitation provision

Access to at least basic	services			
Percentage P	Progress towards MDG target			
of population	Met target Limited or no progress			
1990	Good progress Inadequate data			
2015	Moderate progress			
Drinking water	Moderate progress			
0 10 20 30 National Rural Urban	40 50 60 70 80 90 100 %			
Sanitation	Limited or no progress			
National Rural Urban 0 10 20 30 Source: WHO and UNICEF 2015.	40 50 60 70 80 90 100 %			

Chad

Water resources

Chad has an annual rainfall of 322 mm (AMCOW 2018). The country has three climatic zones, with varying degrees of rainfall. Rainfall is 300 mm/ year in the north of the country near the desert, 300–600 mm/year in the Sahelian zone and 600–1,200 mm/year in the Sudanian zone (FAO 2016). Water availability is about 92.8 m³/year per person (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 0.37 and is projected to increase to 0.67 by 2040 (Luo et al. 2015). A score of 0.67 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
	m ³ /person and year
Total renewable freshwater	5 750
Total water withdrawal	27.7
Internal renewable water sources	5 740
of which are surface water	5 620
pressure on surface wat	ter no data available
of which are groundwater	2 250
pressure on groundwate	er no data available
Water stress	0.50%
Source: AMCOW 2018; FAO 2018.	









There are no recent data regarding wastewater management.

Water and sanitation provision



Using MDG 7.C to	benchmark progress	towards achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	70.7	69.7	68.7	67.5
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			5.7 (2011)	5.7
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)			2.9 (2005)	
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				32.0 (2017)

Source: UNSD, 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework					
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Directorate of Water Resources and Meteorology (DREM) of the Ministry of Environment, Water and Fisheries Ministry of Environment, Water and Fisheries 				
Presence of a functional water regulator	Ministry of Water and Sanitation				
Environment for private sector participation	No dedicated agencyNo dedicated law				
Legal, policy and strated	gy frameworks				
Current enabling policies	Irrigation Policy, 1970				
Current enabling laws	 Law No. 016/PR/99 of 18 August 1999 enacting the Water Code Order No. 22/MHUR/2011 of 7 November 2011 defining the national strategy for equipment and allocation of drinking water points Order No. 24/MHUR/2011 of 3 November 2011 on defining and using village participation in the construction of drinking waterworks Order No. 12/PR/PM/ME/MSP/2011 of 3 June 2011 on the modalities of the first water analysis of catchment works intended for human consumption Order No. 13/PR/PM/ME/MSP/2011 of 3 June 2011 defining approval conditions for laboratories to carry out sampling and analysis of drinking water 				

Sources: FAO 2016; World Bank 2018b.

Comoros

Water resources

Comoros has an annual rainfall of 900 mm (AMCOW 2018). The archipelago is made up of four islands and rainfall varies greatly, ranging from 2,000 to 4,000 mm/year depending on the altitude and orientation of the terrain (FAO 2016).

Although 90 per cent of the population has access to safe drinking water, water security remains an issue. Groundwater and rainwater harvesting are major sources of water for the population on the main island of Grande Comore, while on the islands of Anjouan and Mohéli, the populations rely on surface water.



Water availability	
	m ³ /person and year
Total renewable freshwater	2 490
Total water withdrawal	14.2
Internal renewable water sources	1 410
of which are surface water	1 240
pressure on surface wa	ater 0.31%
of which are groundwater	170
pressure on groundwa	ter 4.44%
Water stress	0.60%
Source: AMCOW 2018; FAO 2018.	



Comoros





The boundaries and names shown and the designatios used on this map do not imply official endorsement or acceptance by the United Nations.

> 25 km GRID-Arendal/Studio Atlantis











There are no recent data regarding wastewater management.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	0.7	0.6	0.6	0.6
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		15.5 (2008)	15.6	15.6
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	20.4			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.6
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				26.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response		
Institutional framework			
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	Comorian Water and Electricity Corporation (MAMWE), responsible for managing water distribution		
Environment for private sector participation	 No dedicated law The National Investment Promotion Agency (NIPA) is the institution responsible 		
Legal, policy and strategy frameworks			
Current enabling policies	 National Environmental Policy adopted by the Decree of 31 December 1993 and the Environmental Action Plan (EAP) National Water Supply Policy 		
Current enabling laws	 Framework Law No. 94-018 of 22 June 1994 on the Environment Code Law No. 94-037 on the Water Code of 1994 		

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.

Congo

Water resources

Congo is a well-watered country with an annual rainfall of 1,646 mm (AMCOW 2018). The country has three basic climatic regions: equatorial in the north, humid and tropical in the south-west and subequatorial in the plateau and bowl regions (FAO 2016). Water availability is about 10.8 m³/year per person with usage highest in the industrial sector (AMCOW 2018). Despite having extensive arable land, only 37.2 per cent of the population is employed in the agriculture sector, which contributed just 6.4 per cent to GDP in 2017 (World Bank 2018). This probably contributes to the low level of water usage in this sector.

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to remain the same by 2040 (Luo et al. 2015). This indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
	m ³ /person and year
Total renewable freshwater	5 410
Total water withdrawal	89.3
Internal renewable water sources	1 060
of which are surface water	354
pressure on surface w	vater 8%
of which are groundwater	751
pressure on groundwa	ater 7.65%
Water stress	1.70%
Source: AMCOW 2018; FAO 2018.	









There are no recent data regarding wastewater management.

Water and sanitation provision



Using MDG 7.C to	benchmark progress	towards achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	29.9	31.6	34.5	37.0
Sanitation and hygiene	Proportion of population practising open defecation (%)	8.6	8.5	8.2	8.0
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	97.9			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.7
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Mines, Energy and Hydraulics Directorate-General of Hydraulics Directorate of Water Resources Management 			
Presence of a functional water regulator	Ministry of Mines, Energy and Hydraulics			
Environment for private sector participation	 No dedicated public-private partnership unit No dedicated public-private partnership law 			
Legal, policy and strated	gy frameworks			
Current enabling policies	• The national water policy is set out in the Law No. 13-2003 of 10 April 2003			
Current enabling laws	 Law No. 13-2003 on the Water Code Law No. 38-2008 establishing the National Agency for Rural Hydraulics Decree No. 2017-253 of 17 July 2017 setting the terms for delegating the management of the public water service Order No. 3135 MEH/CAB of 12 May 2009 defining the scope of operation of drinking water supply systems 			

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.

Côte d'Ivoire

Water resources

Côte d'Ivoire has an average annual rainfall of 1,240 mm (AMCOW 2018). The country has three agroecological zones, with varying amounts of rainfall: in the north, the Sudanian zone receives 900–1,200 mm/year of rainfall, in the south, the Guinean zone receives more than 1,500 mm/year of rainfall, and in the centre, the Sudanian-Guinean zone receives 1,200–1,500 mm/year of rainfall (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.15 by 2040 (Luo et al. 2015). A score of 0.15 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
m ³ /perso	on and year
Total renewable freshwater	476
Total water withdrawal	61.4
Internal renewable water sources	476
of which are surface water	476
pressure on surface water	12.6%
of which are groundwater	0
pressure on groundwater	-
Water stress	12.90%

Source: AMCOW 2018; FAO 2018.





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There are no recent data regarding wastewater management. However, historical data show that only 100,000 m³/year of municipal wastewater produced in 1994 was treated. The remaining wastewater is likely to have been collected through alternative sewerage systems, such as soak pits and septic tanks (FAO 2018). Data on the volume of treated wastewater is lacking.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	36.4	39.7	42.9	45.8
Sanitation and hygiene	Proportion of population practising open defecation (%)	36.2	32.0	27.6	23.6
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		18.8 (2006)	19.4	20.0
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)				16.1
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				12.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				32.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water and Forests Ministry of Sanitation Société de Distribution d'Eau de Côte d'Ivoire [Côte d'Ivoire Water Supply Company] (SODECI) National Drinking Water Office (ONEP) 			
Environment for private sector participation	Decree No. 2012-1151 of 19 December 2012 relating to public-private contracts (currently under revision)			
Water pricing facility	 Decree fixing the water tariff for the 2003–2007 period Order fixing the rate of the special tax on water consumption and respecting the manner of its recovery Cross-subsidy through the water tariff policy A fee for the Water Development Fund (FDE) and a surtax for the National Water Fund (FNH) finances investments and maintenance and also subsidizes new connections and the construction of new water plants 			
Legal, policy and strate	yy frameworks			
Current enabling policies	National Sanitation Policy			
Current enabling laws	 Law No. 98-755 of 23 December 1998 on the Water Code Law No. 96-766 of 3 October 1996 on the Environmental Code Decree No. 2006-274 of 23 August 2006 on the creation and organization of the State company, National Office of Drinking Water (ONEP) Decree No. 2011 482 of 28 December 2011 on the establishment and organization 			

 Decree No. 2011-482 of 28 December 2011 on the establishment and organization of State corporation, the National Office of Sanitation and Drainage (NADO)

Sources: FAO 2016; World Bank 2018b; World Bank 2016c.

Democratic Republic of the Congo

Water resources

The Democratic Republic of the Congo has an average annual rainfall of 1,543 mm (AMCOW 2018). Rainfall is regular and plentiful, ranging from 800 to 1,800 mm across the country. The rainy season lasts eight months on average (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.15 by 2040 (Luo et al. 2015). A score of 0.15 indicates that there is low competition among water users relative to available surface-water resources. Water use is low in the agriculture sector, and despite employing 81.9 per cent of the population in 2017, agriculture only contributed 19.9 per cent to the country's GDP (World Bank 2018).



Water availability			
m	³ /person and year		
Total renewable freshwater	11 600		
Total water withdrawal	8.85		
Internal renewable water sources	11 600		
of which are surface water	11 600		
pressure on surface water	0.053%*		
of which are groundwater	5 450		
pressure on groundwater	0.006%*		
Water stress	0.08%		
Source: AMCOW 2018; FAO 2018.	* 2005		









Data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	10.2	10.9	11.5	12.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		4.1	4.3	4.4
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)			23.8 (2005)	
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.08
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				31.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Environment, Nature Conservation and Tourism (MENCT) and its Water Resources Directorate State Water Utility Company (REGIDESO) for urban areas National Rural Waterworks Service (SNHR) for rural areas National Sanitation Programme Ministry of Energy 				
Presence of a functional water regulator	National Water and Sanitation Committee (CNAEA) under the Ministry of Planning				
Environment for private sector participation	 Law No. 14/005 on the tax system, customs, parafiscal, non-tax revenue and changes applicable to collaboration agreements and to cooperation projects (regulating public-private partnerships) 				
Water pricing facility	REGIDESO's water tariff structure is under review				
Legal, policy and strategy frameworks					
Current enabling policies	 Action plan for the further development of the drinking water sector by 2020 				
Current enabling laws	 Water Code, 2010 Law No. 15/026 of 31 December 2015 on water Ordinance No. 71-079 of 26 March 1971 defining State as regards rain- and wastewater Ordinance No. 52-443 of 21 December 1952 on measures to protect springs, groundwater, lakes and rivers, to prevent water pollution and wastage and to control the exercise of user rights and conceded rights of occupancy 				

Sources: FAO 2016; UNEP 2011; World Bank 2018b; World Bank 2018c.

Djibouti

Water resources

Djibouti has an arid to semi-arid climate with an average annual rainfall of 220 mm (AMCOW 2018), and ranging between 80 and 340 mm from the northeast to the north of the country (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.12 and is projected to increase to 0.28 by 2040 (Luo et al. 2015). A score of 0.28 indicates that there is low competition among water users relative to available surface-water resources. The level of water stress for industrial water use was 1.17 in 2010, indicating low to medium water stress among users. The agriculture sector contribution contributed only 2.2 per cent to GDP in 2017 and employed 29.8 per cent of the population (World Bank 2018).



Water availability			
m³/p	erson and year		
Total renewable freshwater	338		
Total water withdrawal	22.5		
Internal renewable water sources	338		
of which are surface water	338		
pressure on surface water	0.33%		
of which are groundwater	225		
pressure on groundwater	10%		
Water stress	6.70%		

Source: AMCOW 2018; FAO 2018.





Using MDG 7.C to benchmark progress towards achieving SDG 6





Wastewater management

There are no recent data regarding wastewater management. There are also no data for produced municipal wastewater. However, direct use of treated municipal wastewater in 2000 was 100,000 m³/year (FAO 2018).

Water and sanitation provision



Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	15.6	16.3	19.9	22.8
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)				
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				6.7
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Djibouti National Office for Water and Sanitation (ONEAD) National Water Resources Council (NECC) Djibouti National Water Board (ONED), which manages hydraulic works supplying main urban areas National Water, Hygiene and Sanitation Committee National Fund for Water (FNE), 2001 Djibouti Centre for Research and Studies (CERD) 			
Presence of a functional water regulator	Ministry of Agriculture, Livestock and the Sea (MAEM), responsible for water resources			
Environment for private sector participation	 No dedicated public-private partnership unit No dedicated public-private partnership law 			
Water pricing facility	 Order No. 2001-0021/PR/MAEM of 8 January 2001 amending certain tariffs for the sale of water Order No. 2007-0649/PR/MAEM of 10 June 2007 fixing the ONEAD tariffs for the sale of the water and the collection of liquid waste Order No. 2014-738/PR/MAEPE-RH of 6 December 2014 fixing new ONEAD tariffs for the sale of the water and the collection of liquid waste 			
Legal, policy and strategy frameworks				
Current enabling policies	• Water Master Plan, 2000			
Current enabling laws	 Law No. 145/AN/06/5th L establishing the Djibouti National Office for Water and Sanitation of June 2006 Order No. 2008-0060/PR/MAEM of 20 January 2008 approving the terms of reference, the Water Supply Services Regulation, the ONEAD Sanitation Service Regulation Decree No. 2001-0212/PR/MAEM establishing the National Water Fund (FNE) of November 2001 Order No. 88-0066/PR/FIN establishing and attributing the National Water, Hygiene and Sanitation Committee of January 1988 Decree No. 83-015/PR/MIDI on the statutes of the National Water Board (ONED) of February 1983 Det No. 2022 DEE Minematic Status and Sanitation Service Regulation of the National Water Board (ONED) of February 1983 			

Order No. 83-293 PRE MI approving the terms of reference and water regulations of February 1983

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.

Egypt

Water resources

Egypt's low annual rainfall of 15 mm is both irregular and unpredictable, since most of the country has a desert environment (AMCOW 2018; FAO 2016). Water availability highlights the importance of groundwater sources: internal renewable groundwater resources are estimated at 89.5 m³/person/year compared with internal renewable surface-water resources, which are only 16.6 m³/person/year (AMCOW 2018). Agriculture is the biggest water user by sector. Most (83 per cent) irrigated land obtains its water from surface-water flows (FAO 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 1.19 and is projected to increase to 1.53 by 2040 (Luo et al. 2015). A score of 1.53 indicates that there is low to medium competition among water users relative to available surface-water resources. By 2040, water stress from industrial and domestic users is expected to rise from 1.19 to 2.07 and 2.25 respectively, indicating medium to high water stress among users (Luo et al. 2015).



Water availability

,		
	m ³ /person and year	
Total renewable freshwater	630	
Total water withdrawal	652	
Internal renewable water sources	106	
of which are surface water	16.6	
pressure on surface wa	ater 3 700%	
of which are groundwater	89.5	
pressure on groundwa	ter 105%	
Water stress	103.5%	

Source: AMCOW 2018; FAO 2018 .







Population growth (thousands) 111 728 -92 443 -75 524 -62 334 -49 259 -38 549 -

1995

2005

2015

2025

Wastewater management

1985

1975

Source: UN-Desa 2019.

Data available show that the volume of wastewater effluent from urban areas (produced municipal wastewater) was 7.078 million m³/year in 2012. The amount collected by wastewater sewers and other formal wastewater collection systems within the municipalities in the same year was 6.497 million m³/ year, though only 4.013 million m³/year was treated and released by the various municipal wastewater treatment facilities. In 2014, 382 treatment plants were operating with a capacity of 4.745 million m³/ year of treated wastewater (FAO 2018).

Water and sanitation provision



Jsing MDG 7.C to benchmark	progress towards achieving	SDG 6	5
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	1.8	1.1	0.5	0.1
	Proportion of population using safely managed sanitation services (%)	52.7	55.4	57.9	60.6
	Proportion of population with basic handwashing facilities on premises (%)	66.0	73.5	80.9	88.3
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				57.6 (2018)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)				4.6
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				103.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				40.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response		
Institutional framework			
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Egyptian Environmental Affairs Agency (EEAA) Ministry of Water Supply and Sanitation Facilities, created in 2012 Holding Company for Water and Wastewater, 2004 		
Presence of a functional water regulator	• Egyptian Water Regulatory Agency (EWRA), 2006		
Environment for private sector participation	 Egypt Public Private Partnership Law No. 67 of 2010 Supreme Committee for Public Private Partnership Affairs Public Private Partnership Central Unit (PPPCU), Ministry of Finance Public-private partnership satellite units within the administrative authorities, whenever necessary Concession Law No. 67 of 2010 on partnerships with the private sector in infrastructure projects, services and public utilities 		
Water pricing facility	 Residential Water tariff increases require approval by the Holding Company for Water and Wastewater, the EWRA, the Ministry of Water Supply and Sanitation Facilities, the Cabinet of Ministers, the President and the National Assembly. The most recent increase was in 2017. 		
Legal, policy and strategy frameworks			

Current enabling policies	 National Water Resources Plan, 2017 Water and Wastewater Sector Policy Paper, September 2010
Current enabling laws	 Law No. 27 of 1978 on the organization of public sources of potable water and water for human use Presidential Decree No. 178 of 2012 concerning the organization of the Ministry of Drinking Water and Sanitation Ministerial Decree No. 219 of 2010 on the exploitation of water sewage Resolution No. 458 of 2007 defining maximum limits for criteria and requirements necessary for drinking water and domestic use Resolution No. 331 of 2007 adopting the Egyptian Code for drinking water and sewage water

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.

Equatorial Guinea

Water resources

Equatorial Guinea is a small island nation with an annual rainfall of 2,156 mm, although some areas receive as much as 14,000 mm (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and there is not expected to be any change by 2040 (Luo et al. 2015). A score of zero indicates that there is low competition among water users relative to available surfacewater resources. Water withdrawals for agriculture account for only 5 per cent of total withdrawals. The agriculture sector contributed only 2.3 per cent to GDP and employed 59.5 per cent of the population (AMCOW 2018; World Bank 2018).



Water availability			
r	n ³ /person and year		
Total renewable freshwater	30 800		
Total water withdrawal	27.3		
Internal renewable water sources	30 800		
of which are surface water	29 600		
pressure on surface water no data available			
of which are groundwater	11 800		
pressure on groundwater	no data available		
Water stress	0.09%		
Source: AMCOW 2018; FAO 2018.			

<image>






Recent data on wastewater management are lacking.

Water and sanitation provision



Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)		4.4 (2007)	4.4	4.4
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		22.6 (2007)	22.7	22.7
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	337.8			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.09
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				24.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Agriculture and Rural Development, responsible for studies of drinking water supply in rural areas Ministry of Infrastructure and Forests 			
Legal, policy and strategy frameworks				
Current enabling policies				
Current enabling laws	 Decree No. 9/1991 of 17 December 1991, which led to the adoption of the national report on environment and development Law No. 3/2007 on water and coasts in the Republic of Equatorial Guinea 			

Eritrea

Water resources

Eritrea is located in the Sahelian rainfall zone on the eastern coast of Africa. Average rainfall is 384 mm/ year, and ranges from 50 to 1,000 mm (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 3.34 and is projected to decrease to 3.00 by 2040 (Luo et al. 2015). A score of 3.00 indicates that there is high competition among water users relative to available surfacewater resources. Eritrea is one of the few countries where water stress is expected to decrease according to the Luo, Young and Reig index. This may be due to improvements in water resources management and the implementation of water conservation strategies. In 2016, water withdrawals for agriculture accounted for 94.8 per cent of total water withdrawals (AMCOW 2018). Agriculture is an important sector in the country, employing over 80 per cent of the population (World Bank 2018).



Water availability	
	m ³ /person and year
Total renewable freshwater	1 370
Total water withdrawal	108
Internal renewable water sources	523
of which are surface water	504
pressure on surface wa	ter no data available
of which are groundwater	93.4
pressure on groundwat	ter no data available
Water stress	7.90%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking. Available data show that 18 million m³ of municipal wastewater was produced in 2000 (FAO 2018).

Water and sanitation provision



Jsing MDG 7	.C to benchmark	progress towards	achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	87.8	83.3	78.6	76.0
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)		4.7		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				7.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Land, Water and Environment Ministry of Health (drinking water supply)
Presence of a functional water regulator	Ministry of Land, Water and Environment
Environment for private sector participation	No public-private partnership unitNo public-private partnership law
Water pricing facility	Eritrean Water Proclamation No. 162/2010 in article 19
Legal, policy and strateg	yy frameworks
Current enabling policies	 Draft National Water Policy Framework, 1997 Action Plan for Integrated Water Resource Management (IWRM) in Eritrea, 2008 Draft strategy document on rural water supply and sanitation, 2000
Current enabling laws	 Eritrean Water Proclamation No. 162/2010 Water Commission Proclamation Draft Waste Water Permits Regulations Draft Water Use Permits Regulations

Sources: FAO 2016; Habtezion 2011; World Bank 2018b; World Bank 2018c.

Ethiopia

Water resources

Ethiopia has an annual rainfall of 848 mm, ranging from 100 mm/year in the Afar lowlands in the northeast to 2,000 mm/year in certain areas in the southwest (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.81 and is projected to decrease to 0.66 by 2040 (Luo et al. 2015). A score of 0.66 indicates that there is low competition among water users relative to available surface-water resources. Ethiopia is one of few countries where water stress is expected to decrease according to the Luo, Young and Reig index. This may be due to improvements in water resources management, increased water storage, and the implementation of water conservation strategies. In 2016, water withdrawals for agriculture accounted for 91.8 per cent of total water withdrawals (AMCOW 2018).



Water availability	
1	m ³ /person and year
Total renewable freshwater	1 230
Total water withdrawal	106
Internal renewable water sources	1 230
of which are surface water	1 210
pressure on surface wate	er no data available
of which are groundwater	201
pressure on groundwate	r no data available
Water stress	8.6%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Jsing MDG 7.0	C to benchmark	progress towards	achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	4.7	6.1	7.9	10.5
Sanitation and hygiene	Proportion of population practising open defecation (%)	79.8	62.1	44.5	27.1
	Proportion of population using safely managed sanitation services (%)	1.0	1.9	2.8	3.7
	Proportion of population with basic handwashing facilities on premises (%)			0.9 (2007)	1.0 (2008)
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)				2.0
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				8.6
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				31.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	• Ministry of Water and Energy (MWE)
Environment for private sector participation	 No dedicated public-private partnership law There is no dedicated public-private partnership unit – public-private partnerships are governed by relevant line ministries
Water pricing facility	National Guideline for Urban Water Utilities Tariff Setting
Legal, policy and strated	gy frameworks
Current enabling policies	 Universal Access Plan (UAP), 2006 National Hygiene and Sanitation Strategy Water Sector Development Programme (2002–2016) Water Resources Management Policy 2000 (No. 197) Ethiopian Water Strategy 2001 Water Resources Development Fund (WRDF)
Current enabling laws	 Ethiopian Water Resources Management Proclamation (No. 197/2000) Water Supply and Sewerage Authority Establishment Proclamation No. 219/1981 Water Resources Development Fund Establishment and its Administration Proclamation (No. 268 of 2002) Ethiopian Water Technology Institute Establishment Council of Ministers Regulation No. 293/2013 Municipal Public Health Rules 1950 issued with regard to water (10/1, 1950) Revised Urban and Rural Potable Water Supply and Sewerage Services' Reorganizing Proclamation Implementation, Council of Regional Government Regulation (No. 94/2012) Amhara National Regional State Urban and Rural Drinking Water Supply and Sewerage Services Organizing Proclamation Executive Council of Regional Government Regulation (No. 34/2005)

Sources: FAO 2016; World Bank 2018b; World Bank 2018c; Ministry of Water and Energy (MWE) 2013.

Gabon

Water resources

Located in Central Africa, Gabon has a dense hydrographic system with permanent rivers. Average rainfall is 1,800 mm/year (AMCOW 2018), ranging from 1,400 to 3,800 mm/year across the country (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was zero and is projected to remain the same by 2040 (Luo et al. 2015). This score indicates that there is low competition among water users relative to available surface-water resources. In 2016, water withdrawals by the municipal sector accounted for 96.6 per cent of total withdrawals. The oil sector accounts for 80 per cent of exports, which could explain the very low proportions of water used by the agriculture and industrial sectors (World Bank 2019).



Water availability	
	m ³ /person and year
Total renewable freshwater	91 700
Total water withdrawal	801
Internal renewable water sources	48 100
of which are surface water	89 500
pressure on surface wa	ater 0.62%
of which are groundwater	34 200
pressure on groundwa	ter 0.65%
Water stress	0.90%

Source: AMCOW 2018; FAO 2018.







Goal Indicator 2000 2005 2010 2015 Drinking water Proportion of population using safely managed drinking water services (%) Sanitation and Proportion of population practising open hygiene defecation (%) 1.7 2.2 2.6 3.0 Proportion of population using safely managed sanitation services (%) Proportion of population with basic handwashing facilities on premises (%) Wastewater Proportion of safely treated domestic wastewater flows (%) treatment Proportion of bodies of water with good ambient water quality (%) Proportion of groundwater bodies with good ambient water quality (%) Water-use efficiency Water-use 70.1 efficiency (US\$/cm³) Water stress Freshwater withdrawals as a proportion of available freshwater resources (%) 0.9

Source: UNSD 2019.

Water resources

management

Institutional and legal framework

Degree of integrated water resources

management (IWRM) implementation (%)

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services Environment for private	 Ministry of Agriculture, Livestock and Rural Development Ministry of the Forest Economy, Water and Fishing Ministry of Mining, Energy, Oil and Water Resources Société d'Energie et d'Eau du Gabon [Energy and Water Company of Gabon] (SEEG) Heritage Company of Public Services, Drinking Water, Energy and Sanitation There is no dedicated public-private partnerships unit 			
Legal, policy and strates	gy frameworks			
Current enabling policies				
Current enabling laws	Law No. 007/2014 on the protection of the environment			

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.



Wastewater management

Recent data on wastewater management are lacking.

Water and sanitation provision



14.0

Using MDG 7.C to benchmark progress towards achieving SDG 6

Gambia

Water resources

Gambia is located on the west coast of Africa and has an average rainfall of 991 mm/year (AMCOW 2018). Rainfall varies from about 1,000mm/year in the south to less than 800 mm/year in the north (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.54 and is projected to increase to 0.85 by 2040 (Luo et al. 2015). A score of 0.85 indicates that there is low competition among water users relative to available surface-water resources. Gambia's industrial sector has the lowest proportion of water withdrawals.



Water availability	
r	m ³ /person and year
Total renewable freshwater	4 210
Total water withdrawal	47.9
Internal renewable water sources	2 630
of which are surface water	1 580
pressure on surface wate	er 0%
of which are groundwater	2 630
pressure on groundwater	- 40%
Water stress	1.10%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to be	nchmark progress	towards achieving	SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	5.9	3.9	2.1	0.6
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		6.9	7.3	7.7
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	4.7			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.1
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				30.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	• Gambia National Water & Electricity Company (NAWEC)
Presence of a functional water regulator	Public Utilities Regulatory Authority (PURA)
Environment for private sector participation	 National Public Private Partnership Policy, 2015–2020 Directorate of Public Private Partnerships and Public Enterprises (public-private partnerships unit) Gambia Public Procurement Act, 2001 Gambia Public Procurement Regulations, 2003
Water pricing facility	PURA Electricity and Water Retail Tariff Filing Guidelines
Legal, policy and strated	gy frameworks
Current enabling policies	 National Strategy for Sanitation and Hygiene, 2011 National Water Policy, 2006 National Strategy for Sanitation and Hygiene (2011–2016)
Current enabling laws	 National Water Resources Council Act, 1979 Gambia PURA Act of 2001 PURA Enforcement Regulations, 2007

Ghana

Water resources

Ghana has a tropical climate with rainfall averaging 1,187 mm/year (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 0.16 and is projected to increase to 0.57 by 2040 (Luo et al. 2015). A score of 0.57 indicates that there is low competition among water users relative to available surface-water resources. In 2016, the industrial sector accounted for the lowest proportion of water withdrawals at just 9.55 per cent (AMCOW 2018).



Water availability	
	m ³ /person and year
Total renewable freshwater	2 030
Total water withdrawal	37.8
Internal renewable water sources	1 100
of which are surface water	10 50
pressure on surface wate	er no data available
of which are groundwater	950
pressure on groundwate	r no data available
Water stress	1.90%

Source: AMCOW 2018; FAO 2018.





The boundaries and names shown and the designatios used on this map do not imply official endorsement or acceptance by the United Nations.

> 150 km GRID-Arendal/Studio Atlantis





Recent data on wastewater management are lacking. Available data show that 0.28 million m³/year of municipal wastewater was produced in 2006 and that 0.028 million m³/year was collected and 0.022 million m³/year treated in the same year (FAO 2018).

Water and sanitation provision



Jsing MDG 7.C to benchmark progress towards achieving SDG 6					
Goal	Indicator	2000	2005	2010	

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	15.8	19.0	22.7	26.8
Sanitation and hygiene	Proportion of population practising open defecation (%)	21.8	20.8	19.7	18.7
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)	10.1	12.5	15.6	18.9
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)				18.0
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				49.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water Resources, Works and Housing Ministry of Local Government and Rural Development Water Resources Commission Community Water and Sanitation Agency Metropolitan, Municipal and District Assemblies Ghana Water Company Limited 				
Presence of a functional water regulator	Public Utilities Regulatory Commission, 1997				
Environment for private sector participation	 National Policy on Public Private Partnerships, June 2011 Draft Public Private Partnerships Bill No. 2, 2013, not yet adopted Public-private partnerships in Ghana are supported by the Public Private Partnership Advisory Unit in the Public Investment Division of the Ministry of Finance 				
Water pricing facility	Published under section 19 of the Public Utilities Regulatory Commission Act, 1997				
Legal, policy and strateg	yy frameworks				
Current enabling policies	 National Water Policy, 2007 National Community Water Supply and Sanitation Programme 				
Current enabling laws	 Community Water and Sanitation Agency Act, 1998 Water Resources Commission Act, 1996 Ghana Water and Sewerage Corporation Act, 1965 				

Sources: FAO 2016; USAID 2010b; World Bank 2018b; World Bank 2018c.

Guinea

Water resources

Guinea's rainfall averages 2,400 mm/year (AMCOW 2018), ranging from 1,200 to 4,200 mm/year in Upper and Lower Guinea respectively (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.05 and is projected to decrease to 0.02 by 2040 (Luo et al. 2015). A score of 0.02 indicates that there is low competition among water users relative to available surfacewater resources. Data on water withdrawals by sector varies greatly depending on the source. For example, water withdrawals as a proportion of total withdrawals in 2001 were 52.9, 37.7 and 9.4 per cent for the agriculture, municipal and industrial sectors respectively (World Bank 2018).



Water availability	
	m ³ /person and year
Total renewable freshwater	20 900
Total water withdrawal	9.2
Internal renewable water sources	17 900
of which are surface water	14 900
pressure on surface wa	ter 0.34%
of which are groundwater	5 710
pressure on groundwate	er 0.71%
Water stress	0.04%
Source: AMCOW 2018; FAO 2018.	





250 km GRID-Arendal/Studio Atlantis





Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7	.C to benchmark	progress towards a	chieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	27.4	23.3	19.2	15.3
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		8.6 (2006)	8.7	8.8
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	5.3			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.04
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				24.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Environment, Water and Forestry National Water Commission of the Ministry of Natural Resources, Energy and Environment National Directorate of Hydraulics Société Nationale des Eaux de Guinée [Guinea National Water Company] (SONEG) Société d'Exploitation des Eaux de Guinée [Guinea Water Supply Company] (SEEG)
Environment for private sector participation	Law No. 0032/2017 / AN of 4 July 2017 on Public-Private Partnerships
Water pricing facility	Order No. A/2013/172/MEE/CAB/SGG of 12 February 2013 on the pricing of drinking water supply in rural and semi-urban areas
Legal, policy and strated	gy frameworks
Current enabling policies	Draft National Water Policy 2018
Current enabling laws	 Law No. L/94/005/CTRN on the Water Code, 1994 Public Health Code, promulgated in 1997 Order No. A/2013/173/MEE/CAB/SGG of 12 February 2013 on the procedures for establishing protection zones for water catchments intended for human consumption and for sanitation works in rural and semi-urban areas Decree No. D/No.121/PRG/CNDD/SGPRG/2010 of 17 June 2010 amending the statutes of the National Water Point Management Service

Guinea-Bissau

Water resources

Guinea-Bissau has average rainfall of 1,577 mm/ year (AMCOW 2018), which varies across its three agroclimatic zones. In the north-east, the country has a Sudanese climate, where rainfall amounts range between 1,200 and 1,500 mm/year. In the south-east, the climate is humid and tropical, with rainfall amounts ranging between 2,000 and 2,550 mm/year. In the north-west, which has a maritime climate, rainfall is between 1,500 and 1,877 mm/ year (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to remain the same by 2040 (Luo et al. 2015). A score of 0.00 indicates that there is low competition among water users relative to available surface-water resources. In 2016, industry accounted for only 0.17 per cent of total water withdrawals (AMCOW 2018).



Water availability	
	m ³ /person and year
Total renewable freshwater	17 000
Total water withdrawal	97.6
Internal renewable water sources	8 680
of which are surface water	6 510
pressure on surface wa	nter 1.17%
of which are groundwater	7 590
pressure on groundwat	ter 0.21%
Water stress	0.60%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	35.9	28.7	22.0	16.0
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		6.3	6.5	6.6
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)	2.3			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.6
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response	
Institutional framework		
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Interministerial Committee on Water and Sanitation (CIMA) Technical Water Committee (CTA) 	
Presence of a functional water regulator	Ministry of Energy, Industry and Natural Resources	
Environment for private sector participation	 No dedicated public-private partnership unit No dedicated public-private partnership law 	
Legal, policy and strategy frameworks		
Current enabling policies	 National Water and Sanitation Action Plan Framework Plan for Water and Sanitation 	
Current enabling laws	• Water Code, 1992	

Kenya

Water resources

Kenya has a tropical climate with about 80 per cent of the land classified as arid or semi-arid. Rainfall averages 630 mm/year, ranging from less than 200 mm in the north to 1,800 mm on the slopes of Mount Kenya (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.76 and is projected to decrease to 0.64 by 2040 (Luo et al. 2015). A score of 0.64 indicates that there is low competition among water users relative to available surfacewater resources. Water withdrawals as a proportion of total withdrawals are highest in the agriculture sector, averaging 59 per cent (AMCOW 2018).



Water availability	
m³/pe	erson and year
Total renewable freshwater	667
Total water withdrawal	69.9
Internal renewable water sources	450
of which are surface water	439
pressure on surface water	8.91%
of which are groundwater	76
pressure on groundwater	9.71%
Water stress	10.50%











Recent data on wastewater management are lacking. However, historical data show that in 2010, 27 treatment plants were operating with a capacity of 125 million m³/year of treated wastewater (FAO 2018).

Water and sanitation provision



Using MDG /.C to benchmark progress towards achi
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	16.8	15.2	13.5	12.0
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			13.6	13.9
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				35.5 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				42.2 (2017)
Water-use efficiency	Water-use efficiency (US\$/cm³)				10.9
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				10.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				53.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water and Irrigation Water Services Trust Fund (WSTF) National Water Conservation and Pipeline Corporation (NWCPC) Water Services Boards (WSBs)
Presence of a functional water regulator	Water Services Regulatory Board (Wasreb)
Environment for private sector participation	 Public Private Partnership Unit (PPPU) – established as a Special Purpose Unit within the National Treasury of the Republic of Kenya Public Private Partnership (PPP) Act. 2013
	Public Private Partnership Regulations, 2014
Water pricing facility	Water (Water Service Levy) Regulations, 2008 (Cap. 372)
Legal, policy and strateg	y frameworks
Current enabling policies	 Water (Services Regulatory) Rules, 2012 (L.N. No. 137 of 2012) National Water Master Plan 2030 (NWMP) National Water Services Strategy (NWSS) National Water Policy, 1999
Current enabling laws	 Water Act, 2016 (No. 43 of 2016) Kenya Water Institute Act, 2001 (Cap. 372A) Machakos County Water and Sanitation Act, 2014 (No. 1 of 2014) Kiambu County Water and Sanitation Act, 2015 (No. 2A of 2015) Meru Water and Sewerage Services Registered Trustees Regulations, 2002 (L.N. No. 58 of 2002) City of Nairobi (Water Supply) By-laws, 1974 Water (Water Services Board) (Variation of Limits of Supply) Order, 2008 (L.N. No. 68 of 2008)

Sources: FAO, 2016; Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) 2011; World Bank 2018b; World Bank 2018c.

Lesotho

Water resources

Lesotho has a temperate climate with rainfall averaging 788 mm/year, which ranges from less than 300 mm/year in the western lowlands to 1,600 mm/year in the north-eastern highlands (AMCOW 2018; FAO 2005).

The country's aqueduct water stress for all sectors measured in 2010 was 1.17 and is projected to increase to 1.84 by 2040 (Luo et al. 2015). A score of 1.84 indicates that there is low to medium competition among water users relative to available surface-water resources. Water withdrawals for the agriculture sector as a proportion of total withdrawals is only 8.68 per cent. This could be attributed to the small size of irrigation development in the country. Some of the reasons for this include high installation and maintenance costs, inappropriate irrigation design schemes and a lack of farmer commitment. This has resulted in farmers abandoning some irrigation schemes and returning to dryland agriculture (FAO 2005).



Water availability	
	m ³ /person and year
Total renewable freshwater	1 420
Total water withdrawal	20.5
Internal renewable water sources	2 450
of which are surface water	2 450
pressure on surface wat	er no data available
of which are groundwater	138
pressure on groundwate	er no data available
Water stress	1.40%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to	benchmark progress	towards achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	45.7	40.3	35.1	30.0
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			1.96	2.1
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				16.7 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm ³)				55.2
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.4
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				33.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Energy, Meteorology and Water Affairs Water and Sewerage Company Lesotho Lowlands Water Supply Unit Metolong Authority
Presence of a functional water regulator	Lesotho Electricity and Water Authority
Environment for private sector participation	 No dedicated public-private partnership law Lesotho PPP Policy, 2018
Water pricing facility	Tariff Filing and Review Procedure
Legal, policy and strateg	jy frameworks
Current enabling policies	 National water and wastewater quality standards Long Term Water and Sanitation Strategy, 2014 Lesotho Water and Sanitation Policy, 2007
Current enabling laws	 Water Act, 2008 (No. 15 of 2008) Lesotho Electricity and Water Authority (Resolution of Complaints for Water and Sewerage Services) Rules, 2013 (L. N. No. 102 of 2013) Lesotho Highlands Development Authority Order (No. 23 of 1986) Metolong Authority Act, 2010 Lesotho Environment Act, 2001 (Act 15 of 2001), amended in 2008 Declaration of Water Emergency (L. N. No. 44 of 1980)

Liberia

Water resources

Liberia has a tropical, hot and humid climate (FAO 2016) with rainfall averaging 2,391 mm/year (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 0.24 and is projected to decrease to 0.03 by 2040 (Luo et al. 2015). A score of 0.03 indicates that there is low competition among water users relative to available surface-water resources. Development of the agriculture sector is a priority in Liberia. The sector has low water usage (9.4 per cent) compared with municipal and industrial usage, which could be due to its low productivity. Investments in agriculture would support livelihoods and economic development.



Water availability	
	m ³ /person and year
Total renewable freshwater	50 800
Total water withdrawal	no data available
Internal renewable water sources	50 000
of which are surface water	50 000
pressure on surface w	ater no data available
of which are groundwater	11 250
pressure on groundwa	ater no data available
Water stress	0.08%
Source: AMCOW 2018; FAO 2018.	





100 km GRID-Arendal/Studio Atlantis



Population growth (thousands)

1985

Wastewater management

Access to at least basic services

No data available for 1990

vater

10

Source: WHO and UNICEF 2015.

10 20 30

Water and sanitation provision

20 30 40 50

1995

Recent data on wastewater management are lacking.

Met target

Moderate progress

50

40

60 70 80 90 100 %

60

2005

Progress towards MDG target

Good progress Inadequate data

70

80 90

100 %

2015

Limited or no progress

2025

5 692 -

4 472

3 218

1975 Source: UN-Desa 2019

Percentage of population

2015

Drinking

Rural Urban Sanitation

Rural Urbar

ò



Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response		
Institutional framework			
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 National Water Resources and Sanitation Board Ministry of Public Works Ministry of Health and Social Welfare Ministry of Lands, Mines and Energy Liberia Water and Sewerage Corporation Environmental Protection Agency National Water, Sanitation and Hygiene Promotion Committee Water Supply and Sanitation Bureau Directorate of Community Mobilization and Hygiene Promotion 		
Presence of a functional water regulator	Water and Sanitation Regulatory Agency		
Environment for private sector participation	 Public Procurement and Concessions Act, 2005 National Bureau of Concessions No dedicated public-private partnerships law 		
Legal, policy and strated	gy frameworks		
Current enabling policies	Water and Sanitation Policy		
Current enabling laws	 National Water Supply and Sanitation Commission Act, 2017 Act to amend the Public Authorities Law to create the Liberia Water and Sewer Corporation, 1973 Public Health Law, Title 33, Liberian Code of Laws Revised, 2017 		

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.

Using MDG 7.C to benchmark progress towards achieving SDG 6

Libya

Water resources

About 95 per cent of Libya is a desert environment that receives less than 100 mm of rainfall per year (FAO 2016). Since the country only has an average rainfall of 46 mm/year, its population is highly dependent on groundwater, with pressure on groundwater sources estimated at 1,550 per cent (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 4.74 and is projected to increase to 4.77 by 2040 (Luo et al. 2015). A score of 4.77 indicates that there is extremely high competition among water users relative to available surface-water resources. Agriculture is an important sector for the country, employing 68.2 per cent of the population and contributing 34 per cent to GDP in 2017 (World Bank 2018). Water use in agriculture is very high as much of it depends on irrigation, with 98.7 per cent of the water coming from groundwater sources (FAO 2018).



Water availability	
m³/pers	on and year
Total renewable freshwater	79.7
Total water withdrawal	708
Internal renewable water sources	105
of which are surface water	3.01
pressure on surface water	0%
of which are groundwater	90.2
pressure on groundwater	1 550%
Water stress	888.3%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking. However, available data show 504 million m³/year of municipal wastewater was produced in 2012. In 2008, 167 million m³/year of municipal wastewater was collected, though only 4 million m³/ year of this was treated in the same year. Some of the remaining wastewater is channelled into alternative collection systems, such as septic tanks or soak pits. Historical data indicate that 506 million m³/year of wastewater was disposed of in this manner in 1999. By 2010, 79 treatment plants were operating with a capacity of 74 million m³/year of treated wastewater (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)				
	Proportion of population using safely managed sanitation services (%)	28.5	28.6	27.4	26.3
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				15.3 (2018)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)			18.5	
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				888.3
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				47.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 General Water Authority General Company for Water and Wastewater Ministry of Local Government
Environment for private sector participation	 No dedicated public-private partnership law No dedicated public-partnership institution
Water pricing facility	• Resolution No. 218 to set the water pricing for the first phase of the Great Man- Made River Project, 1994
Legal, policy and strated	gy frameworks
Current enabling policies	National Strategy for Integrated Water Resources Management (2000–2025)
Current enabling laws	 Law No. 3 of 1982 to organize the utilization of water resources Law No. 15 of 2003 on the protection and improvement of the environment

Madagascar

Water resources

Madagascar has four agroclimatic zones and a national average rainfall of 1,513 mm/year (FAO 2016). The rainfall ranges from less than 400 mm/ year in the semi-arid province of Toliara in the south to over 1,500 mm/year in the humid tropical climates in the north-western parts of the island (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 1.01 and is projected to decrease to 0.88 by 2040 (Luo et al. 2015). A score of 0.88 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
n	n ³ /person and year
Total renewable freshwater	12 800
Total water withdrawal	66.9
Internal renewable water sources	12 800
of which are surface water	11 500
pressure on surface wate	or 0.41%
of which are groundwater	1 250
pressure on groundwater	1.61%
Water stress	0.50%
Source: AMCOW 2018; FAO 2018.	







Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	37.8	40.2	42.1	43.9
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)	5.2	18.4	44.5	50.5
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				90.1 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				81.6 (2017)
Water-use efficiency	Water-use efficiency (US\$/m ³)		0.5		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				36.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Environment, Water, Forests and Tourism National Water and Sanitation Authority National Water and Sanitation Fund Ministry of Energy and Mines Ministry of Water, Sanitation and Hygiene WASH Committee (Water, Sanitation and Hygiene), 2003 Rural Water Supply and Sanitation Programme JIRAMA – national water and electricity company National Centre for Water, Sanitation and Rural Engineering
Presence of a functional water regulator	Water and Sanitation Regulatory Agency
Environment for private sector participation	 There is no dedicated public-private partnership unit – public-private partnerships are governed by relevant line ministries Law No. 2015-039 of 9 December 2015 on public-private partnerships
Water pricing facility	 Decree No. 2003-792 on charges of levies and spills Tariffs governed by the New Water Code, Law No. 98-029 of 27 January 1999 Order No. 2003-791 regulating the rates for public water and sanitation services
Legal, policy and strate	gy frameworks
Current enabling policies	 National Strategy for Water, Hygiene and Sanitation 2013–2018 National Water and Sanitation Policy
Current enabling laws	 Law No. 98-029 on the Water Code, 1999 Decree No. 2015-1042 of 30 June 2015 on the National Directive for Drinking Water Supply Infrastructures at the community level resistant to climate hazards Decree No. 2003-646 classifying surface water and regulating discharges of liquid effluents Decree No. 2003-193 relating to the operation and organization of the services for drinking water and the sanitation of domestic wastewater Decree No. 2003-941 on the monitoring of water, the control of water intended for human consumption and the priorities of access to water resources

Malawi

Water resources

Located in southern Africa and wholly within the tropics, Malawi has rainfall averaging 1,181 mm/ year (AMCOW 2018). The country has a tropical continental climate, with rainfall ranging between 700 and 2,400 mm/year (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.08 by 2040 (Luo et al. 2015). A score of 0.08 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
	m ³ /person and year
Total renewable freshwater	1 000
Total water withdrawal	78.8
Internal renewable water sources	938
of which are surface water	938
pressure on surface wa	ater no data available
of which are groundwater	145
pressure on groundwa	ter no data available
Water stress	7.90%

Source: AMCOW 2018; FAO 2018.





Malawi



250 km GRID-Arendal/Studio Atlantis





Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C	to benchmark	progress towar	ds achieving	SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	15.7	12.6	9.5	6.4
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)	16.7	14.4	12.0	9.6
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)		2.0		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				7.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				40.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 City and regional water boards Water Resources Board Ministry of Irrigation and Water Development Ministry of Health and Population 				
Environment for private sector participation	 Public Private Partnership Act, 2013 Public Private Partnership Policy Framework, 2011 Public Private Partnership Commission 				
Legal, policy and strateg	gy frameworks				
Current enabling policies	 Water Policy, 1996 Water Resources Management Policy and Strategy, 2000 Environmental Management Policy, 1996 				
Current enabling laws	 Water Resources Act, 1969 Water Resources Act, 2013 (No. 2 of 2013) Water Regulations, 1969 (Cap. 72:03) Water Resources (Water Pollution Control) Regulations, 1978 (Cap. 72:03) 				

Mali

Water resources

Mali has average rainfall of 573 mm/year (AMCOW 2018). The country is divided into four major agroclimatic zones with rainfall decreasing in a south-north direction (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.26 and is projected to increase to 0.32 by 2040 (Luo et al. 2015). A score of 0.32 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
m	³ /person and year
Total renewable freshwater	7 680
Total water withdrawal	573
Internal renewable water sources	4 640
of which are surface water	1 120
pressure on surface water	46.5%
of which are groundwater	3 520
pressure on groundwater	0.47%
Water stress	7.50%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking. Available data show that 96.7 million m3/ year of wastewater was produced in 2009 up from 87.5 million m3/year in 2007 (FAO 2018).

Water and sanitation provision



Using	MDG 7.	C to be	enchmark	progress	towards a	chieving	SDG 6	;

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	21.5	16.8	12.2	8.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			16.2	16.3
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)		0.8		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				7.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				53.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Energy, Mines and Water Agency for Water Supply and Sanitation National Water Council Regional and local water boards National Directorate for Sanitation and Environmental Nuisance Control Ministry of Health Ministry of Environment 				
Presence of a functional water regulator	 Regulatory Commission of Water and Energy regulates the urban water and sanitation sector 				
Environment for private sector participation	 Law No. 2016-061 of 30 December 2016 on public-private partnerships There is no dedicated public-partnership unit 				
Water pricing facility	Interministerial Order No. 01-1475-MMEEMICT-MEF of 28 June 2001 on water consumption tariffs				
Legal, policy and strateg	ıy frameworks				
Current enabling policies	 Water Resources Development Framework National Water Policy, 2006 				
Current enabling laws	 Law No. 02-006 on the Water Code, 2002 Decree No. 01-395/P-RM on procedures for the management of wastewater and sludge of 2001 Interministerial Order No. 09-0767/MEA/MEIC/MEME/SG of 6 April 2009, mandating the application of Malian wastewater discharge standards Ordinance No. 00-020/p-rm of 15 March 2000 on the organization of drinking water public services Ordinance No. 10-039/P-RM of 5 August 2010 establishing the Malian Drinking Water Heritage Society 				

Mauritania

Water resources

Mauritania has average rainfall of just 92 mm/year. Groundwater is therefore of great importance in the country, with pressure on sources at 43.3 per cent (AMCOW 2018). Over 50 per cent of the northern part of the country is desert, making the agriculture sector a major user of water (FAO 2016). Roughly 90 per cent of the water for irrigation comes from surface-water sources (FAO 2018). Internal renewable groundwater resources are 84.8 m³/year per person compared with internal renewable water resources which are only 28.3 m³/year per person (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 0.47 and is projected to increase to 1.05 by 2040 (Luo et al. 2015). A score of 1.05 indicates that there is low to medium competition among water users relative to available surface-water resources.



Water availability

water availability	
	m ³ /person and year
Total renewable freshwater	3 220
Total water withdrawal	452
Internal renewable water sources	113
of which are surface water	28.3
pressure on surface wa	ater 1 500%
of which are groundwater	84.8
pressure on groundwa	ter 43.3%
Water stress	14.0%

Source: AMCOW 2018; FAO 2018.









There is not much recent data regarding wastewater management, although available data show that 21.4 million m³/year of municipal wastewater was produced in 2008. The amount of wastewater treated in 1998 was 0.7 million m³/year (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	48.9	42.3	36.1	30.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		15.9	16.4	16.8
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)		2.0		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				14.0
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				45.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water and Sanitation Directorate of Sanitation National Office for Sanitation National Office for Water Services in Rural Areas National Centre for Water Resources National Water Council National Water Company Agency for the Promotion of Universal Access to Basic Services Ministry of Economic Affairs and Development National Wells and Boreholes Company
Presence of a functional water regulator	Multisector Regulation Authority
Environment for private sector participation	 Law No. 2015-039 of 9 December 2015 on public-private partnerships There is no dedicated public-private partnerships unit
Water pricing facility	Decree No. 2002-20 of 31 March 2020 establishing water withdrawal fees
Legal, policy and strated	gy frameworks
Current enabling policies	 National Rural Sanitation Program National Sanitation Policy and Strategy Sector Policy Declaration Water and Sanitation Strategy 2012
Current enabling laws	Law No. 2005-30 on the National Water Code

Mauritius

Water resources

Located east of Madagascar in the Indian Ocean, Mauritius has rainfall average of 2,041 mm/year (AMCOW 2018).

Water stress data according to the Luo, Young and Reig index (2015) are not available. However, FAO data indicate that water stress has been increasing, rising from 20.57 per cent in 1990 to 26.35 per cent in 2003 (FAO 2018). Agriculture is the sector that uses the greatest proportion of the total water withdrawals.



Water availability	
m ³ /pers	on and year
Total renewable freshwater	2 180
Total water withdrawal	574
Internal renewable water sources	2 180
of which are surface water	2 180
pressure on surface water	24.5%
of which are groundwater	707
pressure on groundwater	16.6%
Water stress	26.3%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking. Available data show that 24.3 million $m^3/$ year of municipal wastewater was produced in 2006, and that the amount of wastewater treated increased from 1 million m^3 /year in 2006 to 41 million m^3 /year in 2013 (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	0.1	0.1	0.1	0.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	7.6			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				26.3
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				64.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Central Water Authority Water Resources Unit Ministry of Energy and Public Utilities Wastewater Management Authority
Presence of a functional water regulator	Central Water Authority
Environment for private sector participation	 Public-Private Partnership Act, 2004 Build Operate Transfer Projects Act, 2016 Public-Private Partnership Policy Statement, 2003 Public Procurement Act (2006) and its PPP Regulations (2008) Public-Private Partnerships Guidance Manual Public-Private Partnership Unit established in the Ministry of Economic Development, Financial Services and Corporate Affairs
Water pricing facility	• Waste Water (Miscellaneous Waste Water Services) (Fees) (Amendment) Regulations 2017 (G.N. No. 194 of 2017)
Legal, policy and strateg	yy frameworks
Current enabling policies	Water Master Plan, 2012National Water Policy
Current enabling laws	 National Water Act (draft) Environment Protection (Drinking Water Standards) Regulations 1996 (G.N. No. 55 of 1996) Central Water Authority (Amendment) Act. 2005

Central Water Authority (Water Supply for Domestic Purposes) (Amendment)

Sources: FAO, 2016; Ministry of Energy and Public Utilities (MEPU) 2018; World Bank 2018b; World Bank 2018c.

Regulations, 2008

Morocco

Water resources

Morocco is located along the north-western coast of Africa. It is mostly a semi-arid country with a temperate north and a tropical south, and has average rainfall of 346 mm/year (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 3.85 and is projected to increase to 4.68 by 2040 (Luo et al. 2015). A score of 4.68 indicates that there is extremely high competition among water users relative to available surface-water resources.



Water availability	
	m ³ /person and year
Total renewable freshwater	no data available
Total water withdrawal	no data available
Internal renewable water sources	no data available
of which are surface water	no data available
pressure on surface wate	er no data available
of which are groundwater	no data available
pressure on groundwate	r no data available
Water stress	49.0%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking. Available data show that 700 million m³/ year of wastewater was produced in 2012. By 2012, there were 73 wastewater treatment plants in operation (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	54.8	59.4	4.3	68.8
Sanitation and hygiene	Proportion of population practising open defecation (%)	24.3	18.0	11.4	7.6
	Proportion of population using safely managed sanitation services (%)	31.2	33.8	36.1	38.1
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				42.9 (2017)
	Proportion of bodies of water with good ambient water quality (%)				79.2 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				76.3 (2017)
Water-use efficiency	Water-use efficiency (US\$/m ³)			7.2	
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				49.0
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				64.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response	
Institutional framework		
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Energy, Mines, Water and Environment National Office of Electricity and of Potable Water National Drinking Water Authority 	
Environment for private sector participation	 Law No. 86-12 on public-private partnership contracts (Dahir No. 1-14-192 of 1 Rabii 1436 (24 December 2014)) Decree No. 2-15-45 of 24 Rajab 1436 (13 May 2015) taken for the application of Law No. 86-12 on public-private partnership contracts Department of Public Enterprises and Privatisation, Ministry of Economy and Finance Interministerial PPP Committee to the Minister of Finance 	
Water pricing facility	 Order of the Minister Delegate to the Head of Government, in charge of General Affairs and Governance No. 375-13 of 25 Rabii I 1434 (6 February 2013) amending and supplementing Order No. 357-03 of 8 Hija 1423 (10 February 2003) fixing the rates for the sale of drinking water to production Order of the Minister Delegate to the Head of Government, in charge of General Affairs and Governance No. 377-13 of 25 Rabii I 1434 (6 February 2013) amending and supplementing Order No. 427-06 of 2 Safar 1427 (3 March 2006) setting tariffs for the sanitation fee 	
Legal, policy and strategy frameworks		
Current enabling policies	 National Water Plan, 2015 National Water Strategy, 2009 Rural Water Supply and Sanitation Programme (PAGER), 1995 National Liquid Sanitation and Wastewater Treatment Programme launched in 2005, setting targets for 2020 and 2030 for sanitation services and treatment rates 	
Current enabling laws	 Dahir No. 1-95-154 promulgating Law No. 10-95 on water Dahir No. 1-10-104 promulgating Law No. 42-09 modifying and completing Law No. 10-95 on water 	

Mozambique

Water resources

Mozambique receives an average of 1,032 mm/year of rainfall (AMCOW 2018), which varies from the coast to inland areas and from north to south. Along the coast, rainfall averages 800–1,000 mm. The northern and central part averages 1,000-2,000 mm decreasing to 400 mm towards the arid south (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.49 and is projected to decrease to 0.72 by 2040 (Luo et al. 2015). The score of 0.72 indicates that there is low competition among water users relative to available surface-water resources.



Water availability			
m	³ /person and year		
Total renewable freshwater	8 220		
Total water withdrawal	no data available		
Internal renewable water sources	3 800		
of which are surface water	no data available		
pressure on surface water	⁻ no data available		
of which are groundwater	no data available		
pressure on groundwater	no data available		
Water stress	0.93%		
Source: AMCOW 2018; FAO 2018.			








Recent data on wastewater management are lacking.

Water and sanitation provision



Jsing MDG 7.0	C to benchmark	progress towards	achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	56.7	49.8	42.9	35.9
	Proportion of population using safely managed sanitation services (%)	2.9	5.9	9.1	12.2
	Proportion of population with basic handwashing facilities on premises (%)			11.8	11.9
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)				6.5
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.93
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				55.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Public Works and Housing National Water Council Board of Water and Sanitation Infrastructure Water Supply Investment and Assets Fund Administration of Water Infrastructures and Sanitation 			
Presence of a functional water regulator	Water Regulatory Council			
Environment for private sector participation	 Public-Private Partnership Unit under the Ministry of Economy and Finance Law No. 15/2011 of 10 August 2011 on public-private partnerships Decree No. 16/2012 of 4 June 2012 on public-private partnerships 			
Water pricing facility	1998 Water Tariff Policy (Resolution No. 60/98)			
Legal, policy and strateg	yy frameworks			
Current enabling policies	 National Water Policy, 2007 National Water Policy (Resolution No. 7/95) 			
Current enabling laws	 Water Law, 1991 Decree No. 15/2004 approving the regulation on municipal water supply and wastewater treatment 			

Source: FAO 2016; Wilson and Dias 2016; World Bank 2018b; World Bank 2018c.

Namibia

Water resources

Namibia is one of the most arid places in Africa (FAO 2016). Mean rainfall averages only 197 mm/year (AMCOW 2018), of which 83 per cent evaporates, 14 per cent is used up by vegetation, 2 per cent becomes run-off and only 1 per cent recharges groundwater (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 1.75 and is projected to increase to 3.18 by 2040 (Luo et al. 2015). A score of 3.18 indicates that there is high competition among water users relative to available surface-water resources. As with most African countries, the agricultural sector uses the greatest proportion of the total amount of water withdrawn.



Water availability	
	m ³ /person and year
Total renewable freshwater	17 500
Total water withdrawal	57.9
Internal renewable water sources	2 700
of which are surface water	180
pressure on surface wa	ater 268%
of which are groundwater	92.1
pressure on groundwa	ter 15.2%
Water stress	0.30%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking. Available data show that 19.5 million m³/year of municipal wastewater was produced in 2009 and that the amount treated in the same year was 6 million m³/ year. Although there are no data, some of the untreated wastewater is channelled into alternative systems such as septic tanks or soak pits. By 2013, the operational wastewater treatment plants had a capacity of 7 million m³/year of treated wastewater (FAO 2018).

Water and sanitation provision



Using MDG /.C to benchmark progress towards achi
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	55.7	53.9	51.9	49.8
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			42.0	43.7
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	17.3			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.3
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				59.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Namibia Water Corporation Water Point Committees Water Advisory Council, 2016 Water Users' Associations National Water Master Plan Ministry of Lands and Resettlement Ministry of Health and Social Services 				
Environment for private sector participation	 Public-Private Partnership Unit in the Ministry of Finance Public Private Partnership Act, No. 4 of 2017 Public Private Partnership Policy, 2012 				
Water pricing facility	Gazette Notice No. 6385, Tariffs 2017/2018				
Legal, policy and strated	gy frameworks				
Current enabling policies	 Water Supply and Sanitation Policy, 2008 National Water Policy White Paper, 2000 				
Current enabling laws	 Water Act 54 of 1956 Water Corporation Act 12 of 1997 Model Sewerage and Drainage Regulations (G.N. No. 99 of 1996) Model Water Supply Regulations (G.N. No. 72 of 1996) 				

Sources: FAO 2016; Remmert 2016; World Bank 2018b; World Bank 2018c.

Niger

Water resources

Niger is located in West Africa and receives an average of 151 mm/year of rainfall (AMCOW 2018). The country has four climatic zones: the Saharan zone or desert, covering about 65 per cent of the land, with less than 100 mm/year; the Sahelian-Saharan zone, with rainfall between 100 and 300 mm/year; the Sahelian-Sudanian zone, with rainfall between 300 and 600 mm/year; and the Sudanian zone, with more than 600 mm of rainfall/year (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.12 and is projected to increase to 0.28 by 2040 (Luo et al. 2015). A score of 0.28 indicates that there is low competition among water users relative to available surface-water resources. The agriculture sector uses the greatest proportion of the total water withdrawals.



Water availability	
	m ³ /person and year
Total renewable freshwater	1 780
Total water withdrawal	51.2
Internal renewable water sources	183
of which are surface water	52.3
pressure on surface wa	ater 4%
of which are groundwater	131
pressure on groundwa	ter 18.4%
Water stress	2.90%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7	'.C to benchmark	progress towards	achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	81.5	78.3	74.9	71.3
	Proportion of population using safely managed sanitation services (%)	4.1	5.5	6.9	8.5
	Proportion of population with basic handwashing facilities on premises (%)		9.1	9.3	
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				3.4 (2017)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)				2.4
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				2.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				50.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water Resources National Water and Sanitation Commission Regional Water and Sanitation Commissions Niger Water Heritage Corporation Niger Water Operator Company 			
Presence of a functional water regulator	 Public-Private Partnership Unit in the Division of Public Procurement and Management of Public Service, President's Office Draft PPP law, 2014 (has not yet been adopted) Law No. 2011-30 of 25 October 2011, ratifying Ordinance No. 2011-07 of 16 September 2011 on the general regime of public-private partnership contracts in the Republic of Niger (under revision) Decree No. 2011-559/PRN/PM of 9 November 2011, laying down detailed rules for implementing Ordinance No. 2011-07 of 16 September 2011 on the general regime of public-private partnership contracts in the Republic of Niger Decree No. 2011-560/PRN/PM of 9 November 2011, on the organization and functioning of the Public-Private Partnership Support Unit in the Republic of Niger Decree No. 2013-569/PRN/PM of 20 December 2013 on the Public Procurement and Public Services Delegation Code 			
Environment for private sector participation	 Decree No. 99-539/PCRN/MH/E determining the tariffs for the sale of drinking water metered by the National Water Company (SNE) Decree No. 2004-98/PCRN/MH/E/LCD automatically adjusting the price of water Order No. 109/MHE/LCD of 22 December 2004 on restructuring the tariff scheme for the sale of water in urban and semi-urban centres 			
Legal, policy and strategy frameworks				
Current enabling policies	 2012–2015 Economic and Social Development Plan (PDES) Strategy for faecal sludge management (FSM) services in Niamey city Public Rural Water Supply Services Guidance document 			
Current enabling laws	 Ordinance No. 2010-09 of 1 April 2010 on the Water Code Decree No. 2003-145/PRN/MHE/LCD approving the regulation of the drinking water distribution service in Niger and the document on the drinking water distribution service in Niger 			

Nigeria

Water resources

Nigeria receives an average of 1,150 mm/year of rainfall (AMCOW 2018). The north of the country is semi-arid but becomes more humid towards the coast (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.33 and is projected to increase to 0.90 by 2040 (Luo et al. 2015). A score of 0.90 indicates that there is low competition among water users relative to available surface-water resources. The proportion of water used is highest in the agriculture sector compared with total water withdrawals.



Water availability	
m ³ /pers	on and year
Total renewable freshwater	2 120
Total water withdrawal	74
Internal renewable water sources	1 620
of which are surface water	1 380
pressure on surface water	4.23%
of which are groundwater	881
pressure on groundwater	1.79%
Water stress	3.50%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	16.7	18.4	19.3	19.4
Sanitation and hygiene	Proportion of population practising open defecation (%)	22.6	23.6	24.6	25.5
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		12.1	12.6	13.1
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				52.5 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	6.7			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				3.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				3.5 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Federal Ministry of Water Resources National Council on Water Resources National Technical Committee on Water Resources Nigeria Hydrological Services Agency National Water Resources Institute 				
Environment for private sector participation	 Foundation for PPP Association Infrastructure Concession Regulatory Commission Lagos State Office of Public-Private Partnerships PPP Division, Technical Services Department, Ministry of Finance ICRC Act, 2005 National Policy on Public Private Partnerships, 2009 Public Procurement Act, 2007 				
Water pricing facility	Utilities Charges Commission Act, 2013				
Legal, policy and strated	gy frameworks				
Current enabling policies	 National Water Policy, 2009 (draft in 2016) Water Resources Strategy, 2006 Water Sector Roadmap, 2011 				
Current enabling laws	 Water Resources Act No. 101, 1993 National Water Resources Bill (drafted from October 2006) Model State Water Supply Service Regulatory Law National Water Resources Master Plan National Environmental (Effluent Limitation) Regulations, 2013 National Environmental (Surface and Ground Water Quality Control) Regulations, 2011 (S.I. 22 of 2011) 				

Sources: FAO 2016; Federal Government of Nigeria 2011; World Bank 2018b; World Bank 2018c.

Rwanda

Water resources

Rwanda is a landlocked mountainous country in East Africa with average rainfall of 1,200 mm/year (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.10 by 2040 (Luo et al. 2015). A score of 0.10 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
m	³ /person and year
Total renewable freshwater	1 150
Total water withdrawal	1 550
Internal renewable water sources	824
of which are surface water	824
pressure on surface water	r 31.6%
of which are groundwater	607
pressure on groundwater	1.96%
Water stress	1.40%
Source: AMCOW 2018; FAO 2018.	









Data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.	C to benchmark	progress towards a	chieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	25.9	29.3	3.8	36.4
Sanitation and hygiene	Proportion of population practising open defecation (%)	4.4	3.6	2.8	2.1
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)	1.2	2.5	3.9	5.4
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				30.0@ (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	14.0			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.4
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				35.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Lands, Environment, Forestry, Water and Natural Resources Water and Forest Authority Energy, Water and Sanitation Authority 				
Presence of a functional water regulator	Rwanda Utilities Regulatory Authority				
Environment for private sector participation	 Public-Private Partnership Unit of the Rwanda Development Board Law No. 14/2016 of 2 May 2016 governing public-private partnerships Law on public procurement 				
Water pricing facility	 Inter-ministerial Order No. 01/MINICOM/MINICOFIN/97 amending Inter-ministerial Order No. 01/MICOMART/MINIFIN/96 of 29 July 1996 fixing the sale prices of water, electricity and related services offered by Electrogaz and determining the methods of recovery and allocation of revenue, 1997 				
Legal, policy and strateg	yy frameworks				
Current enabling policies	National Policy for Water Resources Management, 2011				
Current enabling laws	 Law No. 62/2008 laying down rules for the use, conservation, protection and management of water resources Ordinance No. 52/443 on measures to protect sources, underground aquifers, lakes and rivers, to prevent pollution and wastage of water and to control the exercise of rights of use and rights of occupation conceded, 1952 				

São Tomé and Príncipe

Water resources

Located off the coast of Gabon in West Africa, São Tomé and Príncipe receives an average of 3,200 mm/ year (AMCOW 2018) of rainfall. The climate is humid and rainfall varies greatly between the country's two main islands (FAO 2016). On the north-eastern São Tomé Island, rainfall ranges between 900 mm/year and over 6,000 mm/year in the south-west, while on the Príncipe Island, it ranges between 2,500 and 4,500 mm/year (FAO 2016).



Water availability	
r	m ³ /person and year
Total renewable freshwater	11 500
Total water withdrawal	36.8
Internal renewable water sources	11 500
of which are surface water	no available data
pressure on surface wate	er no available data
of which are groundwater	no available data
pressure on groundwate	r no available data
Water stress	0.30%
Source: AMCOW 2018: FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to	benchmark progress	towards achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	70.6	63.7	56.8	49.7
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			42.2	41.9
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)				
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.3
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				23.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Public Company for Water and Electricity Directorate-General for Natural Resources and Energy Water and Sanitation Committee
Environment for private sector participation	 There is no dedicated public-private partnerships unit There is no dedicated public-private partnerships law
Legal, policy and strated	gy frameworks
Current enabling policies	
Current enabling laws	 Water Resources Framework Law No. 07/2018 Order on the Statute of the Public Company for Water and Electricity, 2008

Senegal

Water resources

Senegal has a Sahelian climate (FAO 2016), receiving 686 mm/year of rainfall that ranges between 200 mm/year in the north to 1,500 mm/year in the south (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.49 and is projected to increase to 0.98 by 2040 (Luo et al. 2015). A score of 0.98 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
m³/p	erson and year
Total renewable freshwater	2 720
Total water withdrawal	156
Internal renewable water sources	1 800
of which are surface water	1 660
pressure on surface water	6.72%
of which are groundwater	244
pressure on groundwater	18.4%
Water stress	5.70%

Source: AMCOW 2018; FAO 2018.









There is a dearth of recent data regarding wastewater management. Available data show that 820 million m³/year of municipal wastewater was produced in 2012 and that 324 million m³/year was treated in the same year (FAO 2018). In 2012, there were 138 treatment plants, a significant increase from 44 in 2001, which operated with a capacity of 270 million m³/year of treated wastewater (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	24.2	21.2	18.1	15.1
	Proportion of population using safely managed sanitation services (%)	17.6	19.7	21.9	24.1
	Proportion of population with basic handwashing facilities on premises (%)		15.1	15.3	15.4
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				14.5 (2018)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	2.7			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				5.7
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				53.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 National Water Company of Senegal Senegalese Waters National Sanitation Office of Senegal Higher Council of Water Rural Boreholes Agency
Presence of a functional water regulator	 No existing functional water regulator Presence of an interministerial framework for regulation
Environment for private sector participation	 Public-Private Partnership Law and Application Decree Public-Private Partnership Contacts Law Directorate of Finance and Public-Private Partnerships in the Ministry of Investment Promotion and Partnerships, which acts as the national Public-Private Partnership Unit pending the effective settlement of the National Public-Private Partnership Committee
Water pricing facility	Ministerial Order No. 8622 of 2 October 2008 revising water tariffs
Legal, policy and strateg	ıy frameworks
Current enabling policies	Integrated Water Resources Management Action Plan, 2007
Current enabling laws	 Law No. 81-13 of 4 March 1981 on the Water Code A new Water Code is currently under review Law No. 2009-24 on the Sanitation Code Decree No. 98-556 implementing the provisions of the Water Code relating to the water police Decree No. 98-1025 approving the Water Service Regulation, 1998

Seychelles

Water resources

Located about 1,500 km from the eastern African coast, Seychelles has an equatorial climate (FAO 2016), receiving rainfall of 2,330 mm/year (AMCOW 2018). The highest rainfall is received on Mahé Island, averaging 2,370 mm. This decreases to 1,990 mm and 1,620 mm on Praslin Island and La Digue Island, respectively. The other islands have a mean rainfall of 1,290 mm/year (FAO 2016).

Available data indicate that withdrawals from the municipal sector as a percentage of total withdrawals are 10 times higher than those in the agricultural sector (AMCOW 2018). Agriculture is not a significant contributor to the economy, representing only 1.9 per cent to GDP in 2017, which may account for the low water usage by the sector (World Bank 2018). According to historical data from 2003, municipal withdrawals were 65 per cent compared with 6.5 per cent and 27.7 per cent for agriculture and industry, respectively (FAO 2018).



Water availability	
r	m ³ /person and year
Total renewable freshwater	no data available
Total water withdrawal	no data available
Internal renewable water sources	no data available
of which are surface water	no data available
pressure on surface wate	er no data available
of which are groundwater	no data available
pressure on groundwater	r no data available
Water stress	no data available







North

Silhouette

Mahé





Recent data on wastewater management are lacking. Available data show that 8.8 million m³/ year of municipal wastewater was produced in 2003 (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	1.4	1.0	0.7	0.4 (2013)
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)				
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				no data
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				45.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Rivers Committee Public Utilities Corporation Ministry of Environment and Energy
Environment for private sector participation	 Public-Private Partnership Law – Investment Act No dedicated public-private partnership unit The Seychelles Investment Board (SIB) acts as a coordinator and facilitator between the public and the private sectors
Legal, policy and strateg	gy frameworks
Current enabling policies	
Current enabling laws	Public Utilities Corporation Act, 1985

Sierra Leone

Water resources

Sierra Leone has rainfall of 2,526 mm/year (AMCOW 2018), ranging from 1,900 to 4,000 mm/year (FAO 2016). The country has a hot and humid tropical climate (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.01 and is projected to increase to 0.02 by 2040 (Luo et al. 2015). A score of 0.02 indicates that there is low competition among water users relative to available surfacewater resources. Agriculture is an important part of the economy, employing 60.6 per cent of the population and contributing 60.3 per cent to GDP in 2017 (World Bank 2018). Despite this, water withdrawals by the sector are very low, which could be attributed to the long-term effects of the civil war.



Water availability	
	m ³ /person and year
Total renewable freshwater	22 900
Total water withdrawal	28.6
Internal renewable water sources	22 900
of which are surface water	21 400
pressure on surface wa	ter no data available
of which are groundwater	3 570
pressure on groundwat	er no data available
Water stress	0.12%
Source: AMCOW 2018; FAO 2018.	





250 km GRID-Arendal/Studio Atlantis





Recent data on wastewater management are lacking.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	26.3	23.7	21.3	18.8
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		12.9 (2006)	13.1	13.1 (2014)
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)		6.4		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				0.12
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				19.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Energy and Water Resources Sierra Leone Water Company 			
Presence of a functional water regulator	Sierra Leone Electricity and Water Regulatory Commission			
Environment for private sector participation	 Public Private Partnership Act, 2014 Public-Private Partnership Unit, Office of the President 			
Legal, policy and strated	gy frameworks			
Current enabling policies	 National Water and Sanitation Policy, 2008 National Water and Sanitation Policy Implementation Plan, 2010 			
Current enabling laws	 National Water Resources Management Agency Act (No. 5 of 2017) Sierra Leone Water Company Act (No. 4 of 2017) Sierra Leone Electricity and Water Regulatory Commission (No. 13 of 2011) 			

Somalia

Water resources

Somalia is situated in the Horn of Africa and has an arid to semi-arid climate. Average rainfall is 282 mm/ year and varies depending on the location, with around 50 mm of rainfall along the northern coast, 150 mm in the interior plateau, 350–500 mm in the south-west and 500 mm in the northern highlands (FAO 2016; AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 1.79 and is projected to decrease to 1.66 by 2040 (Luo et al. 2015). A score of 1.66 indicates that there is low to medium competition among water users relative to available surface-water resources.



Water availability	
m³/perso	on and year
Total renewable freshwater	1 360
Total water withdrawal	306
Internal renewable water sources	556
of which are surface water	528
pressure on surface water	55.6%
of which are groundwater	306
pressure on groundwater	3.94%
Water stress	22.50%

Source: AMCOW 2018; FAO 2018.







The boundaries and names shown and the designatios used on this map do not imply official endorsement or acceptance by the United Nations.

> 250 km GRID-Arendal/Studio Atlantis





Recent data on wastewater management are lacking.

Water and sanitation provision



Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	57.5	51.3	45.1	39.1
	Proportion of population using safely managed sanitation services (%)	19.5	17.9	16.1	14.1
	Proportion of population with basic handwashing facilities on premises (%)			9.6 (2011)	9.6
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				0.7 (2018)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	0.1			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				22.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				10.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water Resources Water Development Agency
Environment for private sector participation	 Public Procurement, Concessions and Disposal Act, 2014 Public-private partnerships are implemented by sector ministries
Legal, policy and strated	gy frameworks
Current enabling policies	
Current enabling laws	 Law No. 28 of 20 February 1971 governing the Water Development Agency National Water Act (No. 49 of 2011)

South Africa

Water resources

South Africa is a semi-arid country with average rainfall of 450 mm/year (AMCOW 2018). Rainfall varies across the country, ranging from a low of 100 mm/year in the western deserts to a high of 1,200 mm/year in the east (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 2.90 and is projected to increase to 3.19 by 2040 (Luo et al. 2015). A score of 3.19 indicates that there is high competition among water users relative to available surface-water resources.



Water availability	
m³/pers	son and year
Total renewable freshwater	910
Total water withdrawal	285
Internal renewable water sources	842
of which are surface water	790
pressure on surface water	28.2%
of which are groundwater	138
pressure on groundwater	53.3%
Water stress	31.30%
Source: AMCOW 2018; FAO 2018.	





250 km GRID-Arendal/Studio Atlantis





Recent data on wastewater management are lacking. Available data show that 3,524 million m³/year of municipal wastewater was produced in 2009 and that the amount treated in the same year was 1,919 million m³/year. The amount of municipal wastewater collected in 2009 was 2,690 million m³/year, while the volume treated was 2,414 million m³/year. The number of operational wastewater treatment plants had reached 923 by 2011 (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	12.5	8.8	5.4	2.3
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				46.9 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)				17.6
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				31.3
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Department of Water and Sanitation Water Boards Water Services Authorities Water Services Provider 			
Environment for private sector participation	 Public-Private Partnership Unit Government Technical Advisory Centre Preferential Procurement Policy Framework Act, 2000 			
Water pricing facility	• Regulations on Norms and Standards in Respect of Tariffs for Water Services in Terms of Section 10 (1) of the Water Services Act (Act No. 108 of 1997)			
Legal, policy and strateg	gy frameworks			
Current enabling policies	 National Water Resource Strategy, 2004 National Water Resources Strategy, 2012 National Groundwater Strategy, 2010 Water for Growth and Development Framework, 2009 National Sanitation Policy, 2016 			
Current enabling laws	 National Water Act, 1998 Water Services Act, 1997 (No. 108 of 1997) Water Research Act, 1996 Water Use Licence Application and Appeals Regulations, 2017 (No. R. 267 of 2017) 			

South Sudan

Water resources

South Sudan has a sub-humid climate with mean rainfall of 867 mm/year, and ranging between 700 and 2,200 mm/year (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to remain the same in 2040 (Luo et al. 2015). A score of zero indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
r	n ³ /person and year
Total renewable freshwater	4 120
Total water withdrawal	24
Internal renewable water sources	2 100
of which are surface water	2 100
pressure on surface wate	er 0.86%
of which are groundwater	25.2
pressure on groundwater	· 24%
Water stress	0.58%
Source: AMCOW 2018; FAO 2018.	









hygiene	defecation (%)		(2011)	
	Proportion of population using safely managed sanitation services (%)			
	Proportion of population with basic handwashing facilities on premises (%)			
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)			
	Proportion of bodies of water with good ambient water quality (%)			
	Proportion of groundwater bodies with good ambient water quality (%)			
Water-use efficiency	Water-use efficiency (US\$/m ³)			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)			0.58
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)			28.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response	
Institutional framework		
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Electricity, Dams, Irrigation and Water Resources Ministry of Lands, Housing and Physical Planning South Sudan Urban Water Coordination 	
Environment for private sector participation	 There is no dedicated public-private partnerships unit There is no dedicated public-private partnerships law 	
Legal, policy and strategy frameworks		
Current enabling policies	 South Sudan Water Policy, 2007 Water, Sanitation and Hygiene Strategic Framework, 2011 	
Current enabling laws	Urban Water Corporation Act, 2011	

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.



Wastewater management

Recent data on wastewater management are lacking.

Water and sanitation provision



Sudan

Water resources

Sudan receives an average of 225 mm/year of rainfall that ranges from 25 mm in the northern desert to 700 mm in the south. The country's climate is tropical subcontinental (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.95 and is projected to increase to 1.56 by 2040 (Luo et al. 2015). A score of 1.56 indicates that there is low to medium competition among water users relative to available surface-water resources.



Water availability	
m³/pers	on and year
Total renewable freshwater	1 050
Total water withdrawal	433
Internal renewable water sources	794
of which are surface water	689
pressure on surface water	52.1%
of which are groundwater	104
pressure on groundwater	70.8%
Water stress	41.20%

Source: AMCOW 2018; FAO 2018.









Recent data on wastewater management are lacking.

Water and sanitation provision



Jsing MDG 7.C to	benchmark progress	s towards achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	50.9	48.7	37.7	26.7
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)			23.2	23.3
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				86.1 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				90.0 (2017)
Water-use efficiency	Water-use efficiency (US\$/m ³)			1.6	
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				41.2
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				40.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response		
Institutional framework			
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water Resources, Irrigation and Electricity National Water Resources Council Public Water Corporation General Water Authority National Water Commission 		
Environment for private sector participation	 No dedicated public-private partnerships law While Sudan does not prohibit public-private partnerships, it has implemented projects through private sector participation in infrastructure A public-private partnerships unit has recently been established 		
Legal, policy and strategy frameworks			
Current enabling policies	Water, Sanitation and Hygiene Sector National Strategic Plan (2012–2016)		
Current enabling laws	Water Resources Act, 1995 Groundwater Regulation Act, 1998		

eSwatini

Water resources

eSwatini (formerly Swaziland) has average rainfall of 788 mm/year (AMCOW 2018).

The country's aqueduct water stress for all sectors measured in 2010 was 2.41 and is projected to increase to 2.63 by 2040 (Luo et al. 2015). A score of 2.63 indicates that there is medium to high competition among water users relative to available surface-water resources.



Water availability	
I	m ³ /person and year
Total renewable freshwater	3 500
Total water withdrawal	808
Internal renewable water sources	2 050
of which are surface water	2 050
pressure on surface wate	er 52.7%
of which are groundwater	513
pressure on groundwate	r no data available
Water stress	23.10%
Source: AMCOW 2018; FAO 2018.	









While recent data on wastewater management are lacking, available data show that 13.2 million m³ of municipal wastewater was produced in 2013 (FAO 2018). The amount of municipal wastewater treated in 2002 was 9 million m³, with 3 million m³ left untreated (FAO 2018). It is important to note that some of the untreated wastewater includes discharges into alternative sewage collection systems, such as soak pits and septic tanks.

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	67.4	74.9	82.9	88.1
Sanitation and hygiene	Proportion of population practising open defecation (%)	23.1	19.2	15.1	10.9
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		23.6	23.4	23.3
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)	2.1			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				23.1
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				53.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response				
Institutional framework	Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Natural Resources and Energy Eswatini Water Services Corporation Eswatini Environment Authority 				
Environment for private sector participation	 There is no dedicated public-private partnerships unit; responsibility for such partnerships is with the Ministry of Finance PPP Policy, 2008 				
Legal, policy and strated	gy frameworks				
Current enabling policies					
Current enabling laws	 Water Act 2003 (No. 7 of 2003) Natural Resources Act 1951 (No. 71 of 1951) Water Pollution Control Regulations, 1999 Public Enterprises (Control and Monitoring) Act, 1989 (No. 8 of 1989) Water Act 1967 (No. 25 of 1967) Water Services Act, 1992 				

Togo

Water resources

Togo borders the Gulf of Guinea in West Africa and has average rainfall of 1,168 mm/year (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.14 and is projected to increase to 0.32 by 2040 (Luo et al. 2015). A score of 0.32 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
m³/µ	person and year
Total renewable freshwater	2 010
Total water withdrawal	37.8
Internal renewable water sources	1 570
of which are surface water	1 480
pressure on surface water	0.8%
of which are groundwater	780
pressure on groundwater	3.37%
Water stress	1.90%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking.

Water and sanitation provision



Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	57.5	55.4	53.2	50.7
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		9.5	9.9	10.3
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/cm³)	8.3			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.9
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				32.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 National Water Council Ministry of Mines and Energy National Water Board Togolese Water Company National Water and Electricity Company
Environment for private sector participation	 Law No. 2014-014 of 22 October 2014 on the modernization of State action for the benefit of the economy Law No. 2009-13 of 30 June 2009 relative to public markets and services delegation No dedicated public-private partnerships unit; such partnerships are handled by the Ministry of Finance
Water pricing facility	 Order No. 32/MMETPT/CAB establishing an ad hoc committee responsible for drawing up measures for the transfer to users of water at standpipes, 1997 Interministerial Order No. 71/MMETPT/MIC/MSEDZF fixing the tariffs for the sale of water in Togo, 1996
Legal, policy and strateg	gy frameworks
Current enabling policies	National Water Policy, 2010
Current enabling laws	 Water Act, 2010 Law No. 2011-24 of 4 July 2011 amending article 16 of Law No. 2010-006 of 18 June 2010 on the organization of public services for drinking water and collective sanitation of domestic wastewater

Tunisia

Water resources

Tunisia has a Mediterranean climate with 207 mm/ year of rainfall, which ranges from a low of 100 mm/ year in the south-western tip of the country to 594 mm/year in the north (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 3.27 and is projected to increase to 4.06 by 2040 (Luo et al. 2015). A score of 4.06 indicates that there is extremely high competition among water users relative to available surface-water resources. The agriculture sector uses a very low level of water, since it is not a major contributor to the economy. The sector employs only 13 per cent of the population and contributes 9.5 per cent to GDP (value added) (World Bank 2018).



Water availability	
m ³ /persor	n and year
Total renewable freshwater	414
Total water withdrawal	557
Internal renewable water sources	376
of which are surface water	278
pressure on surface water	37.1%
of which are groundwater	134
pressure on groundwater	138%
Water stress	134.5%
Source: AMCOW 2018; FAO 2018.	









Recent data on wastewater management are lacking, though available data show that 287 million m³ of municipal wastewater was produced in 2009 and that 226 million m³ was treated in 2010. Around 241 million m³ was collected through municipal wastewater sewers in 2019 and 109 treatment plants were operating with a capacity of 238 million m³/year of treated wastewater in 2010 (FAO 2018).

Water and sanitation provision



Jsing MDG 7.C to ber	nchmark progress	towards achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	37.1	62.5	89.0	92.7
Sanitation and hygiene	Proportion of population practising open defecation (%)	10.8	6.9	3.5	0.9
	Proportion of population using safely managed sanitation services (%)	57.7	63.0	69.0	73.4
	Proportion of population with basic handwashing facilities on premises (%)		85.9 (2008)	86.0	86.3
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				70.5 (2018)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)				9.0
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				134.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				55.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 National Water Supply and Distribution Company Société d'Exploitation du Canal et des Adductions des Eaux du Nord [Northern Water Supply Channel Company] National Office of Sanitation National Water Council Directorate-General of Rural Engineering
Presence of a functional water regulator	Ministry of Agriculture, Water Resources and Fisheries
Environment for private sector participation	 Law No. 2015-49 of 27 November 2015 on public-private partnership contracts Government Decree No. 2016-771 of 20 June 2016 on the composition and powers of the Strategic Council for Public-Private Partnerships Decree No. 2016-772 of 20 June 2016 laying down the conditions and procedures for awarding public-private partnership contracts Decree No. 2016-782 of 20 June 2016 on the registration of real rights for buildings, enterprises and fixed equipment under public-private partnership contracts Concessions Unit at the Office of the Prime Minister, which is the key decision-making body, acts at the Public-Private Partnership Unit, as well as the Ministry of Finance's department responsible for procurement issues
Water pricing facility	• Order of the Minister of Agriculture and the Minister of Finance of 13 June 2013, amending the Decree of 13 July 2010, fixing the price of drinking water, fixed and ancillary fees for water subscriptions and rate of the contributory part of the establishment costs of water meter connections
Legal, policy and strated	gy frameworks
Current enabling policies	 Master Plans (1970–1990): Waters of the North, South and Central Tunisia Decennial Strategy (1990–2000) for the Mobilization of Water Resources Complementary Strategy (2001–2011) 2030 Water Sector Strategy Sustainable Management of Water Resources, 2007
Current enabling laws	• Water Code, 1975 (Law No. 75-61) and latest amendment, 2011

Uganda

Water resources

Located in East Africa, Uganda has an equatorial climate with rainfall averaging 1,180 mm/year. The lowest rainfall occurs in the north-east of the country, averaging 750 mm/year, though areas with high rainfall along the shores of Lake Victoria can receive up to 1,500 mm/year (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.01 by 2040 (Luo et al. 2015). A score of 0.01 indicates that there is low competition among water users relative to available surface-water resources. The agriculture sector uses less water than the municipal sector, possibly due to an overreliance on rain-fed agriculture, limited use of irrigation and the population's growing water demands, which increase the proportion of municipal water withdrawals. For instance, between 2014 and 2018, Uganda's urban population grew at a rate of 5.8 per cent (World Bank 2018). To address this growing demand, the Government has invested in improving water and sanitation infrastructure in key towns or areas, including Arua, Bushenyi, Gulu, Katwe-Kabatoro, Koboko, Kumi-Nyero-Ngora, Rukungiri and Pallisa (World Bank 2019).



Water availability	
	m ³ /person and year
Total renewable freshwater	1 540
Total water withdrawal	16.4
Internal renewable water sources	999
of which are surface water	564
pressure on surface wa	ter 177%
of which are groundwater	425
pressure on groundwate	er 175%
Water stress	1.10%*

Source: AMCOW 2018; FAO 2018.









Recent data on wastewater management are lacking. According to FAO (2018), 41.9 million m³ of municipal wastewater were produced in 2009.

Water and sanitation provision



Jsing MDG 7.C to bench	mark progress towa	ds achieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	3.9	4.6	5.5	6.4
Sanitation and hygiene	Proportion of population practising open defecation (%)	15.5	12.3	9.2	6.2
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)	5.4	6.2	7.0	7.6
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				3.8 (2018)
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)		14.4		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.1
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				59.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response
Institutional framework	
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water and Environment Directorate of Water Development for urban and rural water and sanitation services National Water and Sewerage Corporation Water Policy Committee
Presence of a functional water regulator	Water Utility Regulation Department under the Directorate of Water Development
Environment for private sector participation	 Public Private Partnerships Act, 2015 Public Private Partnerships Framework Policy, 2010 Public-Private Partnership Unit, Ministry of Finance, Planning and Economic Development
Water pricing facility	 Water (Disconnecting and Reconnecting Charges) Regulations (S.I. 152-7) Water (Uganda Schools) (Charges by Meter) Regulations (S.I. 152-9) Water Act (General Rates) Instrument, 2017 (S.I. No. 33 of 2017)
Legal, policy and strateg	jy frameworks
Current enabling policies	 Water and Environment Sector Development Plan 2015/16–2019/20 National Water Policy, 1999 Water and Sanitation Sub-Sector Gender Strategy (2010–15)
Current enabling laws	 Water and Sanitation Sector – Sectoral Specific Schedules/Guidelines 2009/10 Water (Waste Discharge) Regulations, 1998 (No. 32 of 1998) Water Statute, 1995 (Statute No. 9 of 1995) National Water and Sewerage Corporation Act 1995 (Cap. 317) Water (Water Supply) Regulations (S.I. 152-2) Draft Water (Amendments) Act, 2013

United Republic of Tanzania

Water resources

The United Republic of Tanzania has rainfall averaging 1,071 mm/year (AMCOW 2018). The highest levels of rainfall are received in the Lake Tanganyika area in the north-east and in the southern highlands (FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 1.38 and is projected to decrease to 1.00 by 2040 (Luo et al. 2015). A score of 1.00 indicates that there is low competition among water users relative to available surface-water resources.



Water availability		
	m ³ /person and year	
Total renewable freshwater	no data available	
Total water withdrawal	no data available	
Internal renewable water sources	no data available	
of which are surface water	1 600	
pressure on surface water no data available		
of which are groundwater	602	
pressure on groundwate	er no data available	
Water stress	7.45%	
Source: AMCOW 2018; FAO 2018.		









Recent data on wastewater management are lacking, though available data show that 28 million m³/year of municipal wastewater was collected in 2012 (FAO 2018).

Water and sanitation provision



Using MDG 7	.C to benchmark	progress towards a	chieving SDG 6
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Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)	8.4	13.7	27.2	33.6
Sanitation and hygiene	Proportion of population practising open defecation (%)	9.6	10.3	10.8	11.3
	Proportion of population using safely managed sanitation services (%)			47.1 (2012)	47.6
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	1.9			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				7.45
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				50.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water National Water Board Dar es Salaam Water and Sewerage Authority Dar es Salaam Water and Sewerage Corporation Community-owed Water Supply Organizations are in charge in rural areas Water Supply and Sanitation Authorities are in charge in urban areas 			
Presence of a functional water regulator	Energy and Water Utilities Regulatory Authority			
Environment for private sector participation	 Public Private Partnership Act (Amended), 12 May 2014 (as PPP Act) Public Private Partnership Regulations (Amended), 27 November 2015 (as PPP Regulations) Public Procurement Act, 2011, as amended in 2014 National Public Private Partnership Policy, 2009 Tanzania Investment Centre (Public-Private Partnership Unit), Prime Minister's Office 			
Water pricing facility	• Energy and Water Utilities Regulatory Authority (Tariff Application and Rate Setting) Rules, 2017			
Legal, policy and strategy frameworks				
Current enabling policies	 National Water Policy, 2002 National Water Sector Development Strategy, 2006 Water Sector Development Programme 2006–2025 			
Current enabling laws	 Water Resources Management Act, 2009 Water Supply and Sanitation Act, 2009 (No. 12 of 2009) Urban Water Supply Act, 1981 (Act No. 7 of 1981) Water Supply Regulations, 2013 (G.N. No. 90 of 2013) 			

Zambia

Water resources

Zambia has average rainfall of 1,020 mm/year, which varies throughout the country, with the south receiving around 750 mm, the central regions between 900 and 1,200 mm, and the north 1,400 mm. Most of the country has a subtropical climate (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.00 and is projected to increase to 0.20 by 2040 (Luo et al. 2015). A score of 0.20 indicates that there is low competition among water users relative to available surface-water resources.



Water availability	
	m ³ /person and year
Total renewable freshwater	6 760
Total water withdrawal	102
Internal renewable water sources	5 170
of which are surface water	5 170
pressure on surface wa	ter 2.09%
of which are groundwater	3 030
pressure on groundwate	er 0.15%
Water stress	1.50%

Source: AMCOW 2018; FAO 2018.








Wastewater management

Recent data on wastewater management are lacking, although available data show that 118.4 million m³ of municipal wastewater was generated in 2013 (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	24.1	21.1	18.1	15.2
	Proportion of population using safely managed sanitation services (%)			13.1	13.5
	Proportion of population with basic handwashing facilities on premises (%)				
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)	4.2			
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				1.5
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				46.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response			
Institutional framework				
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Local Government and Housing Ministry of Health Rural Water Supply and Sanitation Unit under the Department of Housing and Infrastructure Development in the Ministry of Local Government and Housing 			
Presence of a functional water regulator	National Water Supply and Sanitation Council			
Environment for private sector participation	 Zambia Development Agency Public-Private Partnerships Act, 2009 Public Procurement Act, 2008 			
Water pricing facility	 Approved water supply and sewerage tariffs, May 2018 National Water Policy Guidelines on tariff setting, 2014 			
Legal, policy and strategy frameworks				
Current enabling policies	 National Water Supply and Sanitation Council Strategic Plan 2016–2020 National Water Policy, 2010 National Urban Water Supply and Sanitation Programme 2011–2030 			
Current enabling laws	 Water Act (Cap 198), 2006 Water Supply and Sanitation Act, 1997 (No. 28 of 1997) Water Board (Charges and Fees) Regulations (Cap. 198), 1990 (2006) Public Health (Drainage and Latrine) Regulations (Cap. 295), 1932 (2006) Water Resources Management (Charges and Fees) Regulations, 2018 (S.I. No. 18 of 2018) Water Resources Management Act, 2011 			

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.

Zimbabwe

Water resources

Zimbabwe receives an average of 657 mm/year of rainfall, which ranges from 300 mm in the southern lowveld to more than 1,000 mm in the eastern highlands. The country is prone to droughts associated with El Niño events (AMCOW 2018; FAO 2016).

The country's aqueduct water stress for all sectors measured in 2010 was 0.56 and is projected to increase to 1.02 by 2040 (Luo et al. 2015). A score of 1.02 indicates that there is low to medium competition among water users relative to available surface-water resources.



Water availabilitym³/person and yearTotal renewable freshwater1 530Total water withdrawal273Internal renewable water sources939of which are surface water862pressure on surface water33.7%of which are groundwater459pressure on groundwater7.0%Water stress17.80%

Source: AMCOW 2018; FAO 2018.









Wastewater management

Recent data on wastewater management are lacking. In 2012, 194 million m³ of municipal wastewater was produced, with 95 million m³ treated at 137 treatment plants (FAO 2018).

Water and sanitation provision



Using MDG 7.C to benchmark progress towards achieving SDG 6

Goal	Indicator	2000	2005	2010	2015
Drinking water	Proportion of population using safely managed drinking water services (%)				
Sanitation and hygiene	Proportion of population practising open defecation (%)	29.3	28.2	27.3	26.5
	Proportion of population using safely managed sanitation services (%)				
	Proportion of population with basic handwashing facilities on premises (%)		31.1	30.9	30.7
Wastewater treatment	Proportion of safely treated domestic wastewater flows (%)				
	Proportion of bodies of water with good ambient water quality (%)				76.5 (2017)
	Proportion of groundwater bodies with good ambient water quality (%)				
Water-use efficiency	Water-use efficiency (US\$/m ³)		1.2		
Water stress	Freshwater withdrawals as a proportion of available freshwater resources (%)				17.8
Water resources management	Degree of integrated water resources management (IWRM) implementation (%)				61.0 (2017)

Source: UNSD 2019.

Institutional and legal framework

Basic elements	Response	
Institutional framework		
Presence of an enabling institutional framework for sustainable water, wastewater and sanitation development and services	 Ministry of Water Resources Development and Management Zimbabwe National Water Authority National Action Committee for Water, Sanitation and Hygiene Rural District Councils Water Environmental Sanitation Working Group Water Environmental Sanitation Working Group 	
Environment for private sector participation	 No dedicated public-private partnership law PPP Guidelines (2004) are under review by the Government PPP Policy, 2010 There is no dedicated public-private partnership unit; such partnerships are implemented by the Ministry of Finance and relevant line departments 	
Water pricing facility	 National Water Policy, 2000 Zimbabwe National Water Authority (Raw Water Tariffs) Regulations, 2016 (S.I. 48 of 2016) 	
Legal, policy and strategy frameworks		
Current enabling policies	 National Water Policy, 2000 National Water Strategy, 2000 	
Current enabling laws	 Water Act, 1998 Water Act (Cap. 20:24), 2002 Water Pollution Control (Waste Effluent Water Standards) Regulations (Government Notice No. 609 of 1971) 	

Sources: FAO 2016; World Bank 2018b; World Bank 2018c.