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THE STATUS OF THE WATER SUPPLY AND SANITATION REGULATORY LANDSCAPE ACROSS AFRICA

NORTHERN AFRICA – REGIONAL REPORT

Eastern and Southern Africa
Water and Sanitation Regulators Association

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REGIONAL FINDINGS OVERVIEW

Evidence suggests that a well-functioning regulatory system and the application of a robust set of regulatory mechanisms can play a crucial role in delivering and managing safe and reliable WSS services. Effective regulation demands alignment with country specific reforms, governance systems, political economy and development objectives. However, there has been limited reference material on the setup of these frameworks across Africa that can serve as replication points for countries intending to institute effective regulation.

This report provides an overview of WSS regulation across the Northern African region in six countries: Algeria, Egypt, Libya, Mauritania, Morocco and Tunisia. Data on Sahrawi Republic could not be obtained.

Key findings and overviews are based on a study initiated by ESAWAS and cover: the WSS context, policy and legal backing for WSS regulation, regulatory arrangements, different spheres of regulation (regulated service providers, regulated service delivery types), regulatory mechanisms, and the regulatory environment.

Water Supply and Sanitation context: Northern Africa represents overall high levels of WSS coverage. Northern Africa presents by far the highest Water Supply and Sanitation (WSS) coverage of the five regions across the continent, with average water supply and sanitation coverage rates of 92% and 85% respectively (JMP, 2020).[1] Within the region, Libya and Egypt have reached close to universal coverage particularly for water supply, followed by Tunisia, Algeria and Morocco. Mauritania is the outlier country, with much lower coverage, particularly for sanitation. WSS coverage rates are largely linked to the level of economic development, with two notable positive outliers (Morocco for water supply and sanitation coverage and Tunisia for sanitation coverage only) and one negative outlier (Mauritania for both water supply and sanitation coverage).

Policy and legal backing: Five northern African countries have developed elements of a policy framework for WSS which take different forms (e.g., sector policy or strategy or plan or national programme). However, these are not always publicly accessible. In terms of the legal framework, four of the six countries have an appropriate and sufficiently detailed legal backing for regulating water supply services. Three countries do not have sufficiently detailed legal instruments for regulating sanitation services and one country does not have any specific regulation related to sanitation.

Regulatory models: Across Northern Africa, various regulatory models are applied to WSS service provision. Four main regulatory models are utilised to regulate WSS service delivery:

I. ***Regulation by Agency.*** A regulatory body (semi-) autonomous from the government has discretionary powers to regulate WSS or aspects of WSS.
II. ***Regulation by Contract.*** A public entity other than an (semi-) autonomous regulatory agency and a service provider agree on contractual clauses that determine how key aspects of WSS service provision are defined and controlled, such as tariffs and service standards.
III. ***Ministerial Regulation.*** A ministry performs some or all regulatory responsibilities for WSS and does not use contracts as a core regulatory tool for WSS service provision.
IV. ***Self-Regulation.*** A service provider (typically a public utility or unit of local government) is legally mandated to perform key regulatory activities upon itself (i.e., setting tariffs and performance standards, performance reporting).

Table A details the main regulatory models applied per country and in total across the Northern Africa Region, highlighting the predominant[2] ones (marked as). It depicts that most countries have mixed regulatory arrangements based on multiple regulatory models applied across the four WSS sub-sectors (urban water supply, rural water supply, urban sanitation, rural sanitation) and for different service providers. Regulatory

[1] A basic water supply services refers to drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing. A basic sanitation service is the use of improved facilities which are not shared with other households.
[2] The predominant regulatory form refers to the regulatory form under which the primary service provider in each country is regulated. In most cases, this refers to how a national or regional utility is regulated.

arrangements are largely clearly articulated and combine regulation by agency, ministerial regulation and regulation by contract. In two countries, regulatory arrangements are either unique (in Egypt and Libya where regulation is either by agency or ministerial) or hybrid (with Algeria, Tunisia, Morocco and Mauritania having adopted a combination of regulatory arrangements) across the full WSS chain.

Table A: Regulatory models Applied for Water Supply and Sanitation Service Provision

Country	Regulatory model			
	Regulation by Agency	Ministerial Regulation	Regulation by Contract	Self-Regulation
Algeria	✗	✓	✓	✗
Egypt	✓	✗	✗	✗
Libya	✗	✓	✗	✗
Mauritania	✓	✗	✗	✗
Morocco	✗	✓	✓	✗
Tunisia	✗	✓	✓	✗
Total – Regulatory model Applied	**2 (33%)**	**4 (67%)**	**3 (50%)**	**0 (0%)**
Total – Predominant Regulatory model	**2 (33%)**	**1 (17%)**	**3 (50%)**	**0 (0%)**

The use of multiple regulatory models and the variations in their application make it is useful to note the primary regulatory model applied in each country.[3] Figure A presents this.

Figure A: Predominant Regulatory model Applied for Water Supply and Sanitation Service Provision

Minor evolutions to the regulatory framework in Northern Africa have been recorded. Efforts are ongoing in Mauritania to reflect the extension of delegated services in rural areas in a revised Water Act and develop a Sanitation Act to pave the way for sanitation regulation. Egypt is working on stregthening the role of Egyptian Water Regulatory Authority around tariff setting and the government is enacting a drinking water and wastewater law that would equip the Egyptian Water Regulatory Authority with a more solid legal foundation for fulfilling its role. Efforts to strengthen the regulatory framework, clarify or rationalise roles and responsibilities have either been very limited or stalled for political reasons. In Tunisia, the review of the Water Act was initiated in 2012 with a view to introduce an independent water regulator but the process was stalled with Parliament's suspension in 2019. In Algeria, although the Water Act of 2005 mentions an independent water regulator and such entity was established in 2008, it was never operationalised and this initiative was formally dissolved in 2018.

Spheres of regulation: Regulatory activities primarily focus on the main WSS service providers in each country and the piped water supply and sewered sanitation services they provide. In most countries, the primary regulatory actors (i.e., a ministry, regulatory agency or regulation by contract) focus on the large formal

[3] The predominant regulatory form refers to the regulatory form under which the primary service provider in each country is regulated. In most cases, this refers to how a national or regional utility is regulated.

WSS service providers (i.e., national or regional utilities and large private operators) that predominantly serve urban and peri-urban areas. These service providers have been the focus of the various regulatory mechanisms applied, while limited attention is generally given to municipal-run services. Mauritania is an exception with regulation applying solely to private operators, providing piped water services to 7% of the rural population only. Linked to this, regulation of WSS services predominantly focuses on piped water supply services and sewered sanitation which are reflective of the widespread sanitation infrastructure and level of service provided.

Regulatory mechanisms: With the exception of Libya, Northern African countries have made good to very good progress in developing and applying regulatory mechanisms for WSS service provision. A regulatory mechanism is an intervention or process used by a regulatory actor to guide and influence the behaviour and performance of key stakeholders within the WSS sector, particularly service providers. The existence of 16 individual regulatory mechanisms were investigated across four areas: (i) standards and guidelines;[4] (ii) monitoring and performance reporting;[5] (iii) incentives;[6] and (iv) sanctions.[7] Except for Libya, all countries have developed **at least 12 of the 16** regulatory mechanisms investigated in this study. Figure B presents a summary of each country's performance developing and applying regulatory mechanisms across these four areas. It highlights overall good performance across the Northern Africa region. It is important to note that this assessment focused on the existence of these regulatory mechanisms in relation to the primary regulated WSS service providers in each country (i.e., national utilities, large private operators), with the exception of Mauritania where the assessment focused on the water sector segment under private operators' management (concerning only 7% of the rural population). In Algeria, Morocco and Tunisia, a significantly less developed set of regulatory mechanisms are in place for municipal-led service provision or other informal service provision arrangements.

Figure B: Top-Level Overview of Regulatory Mechanisms for WSS Service Provision

Regulatory environment: There are significant pressing weaknesses in the regulatory environment for WSS regulation across all Northern African countries. Poor performance is evident in the regulatory environment for WSS regulation across three areas: (i) autonomy; (ii) participation; and (iii) transparency. Of note, regulators are often part of – or closely connected to – a Ministry with WSS responsibilities. Tariff

[4] Six regulatory mechanisms were investigated in relation to standards and guidelines. These were: (i) Whether standards and guidelines exist for service levels and water quality; (ii) Whether standards and guidelines exist for tariff rates, tariff setting and tariff adjustments; (iii) Whether standards and guidelines exist for the planning activities of WSS service providers (i.e., business planning, financial projections, accounting, annual reporting); (iv) Whether standards and guidelines exist for citizen involvement and complaints mechanisms; (v) Whether standards and guidelines are designed to help ensure poorer and potentially marginalised populations receive affordable services; and (vi) Whether standards and / or guidelines exist for environmental protection.

[5] Six regulatory mechanisms were investigated for monitoring and performance reporting: (i) Whether appropriate quality of service indicators are periodically tracked by the regulator; (ii) Whether appropriate economic efficiency indicators are periodically tracked by the regulator; (iii) Whether appropriate operational sustainability indicators are periodically tracked by the regulator; (iv) Whether regulated service providers regularly (i.e., annually) submit reports and data to regulatory actors; (v) Whether regulatory actors annually inspect and audit regulated service providers; and (vi) Whether annual reports produced on sector and regulated service provider performance.

[6] Two regulatory mechanisms were investigated for incentives: (i) Whether regulatory actors use financial incentives to promote improved service provider performance; and (ii) whether regulatory actors use reputational incentives to promote improved service provider performance.

[7] Two regulatory mechanisms were investigated for sanctioning: (i) Whether regulatory actors have the ability to issue fines to service providers; and (ii) Whether regulatory actors have the ability to suspend, remove, or transfer service provider licenses.

adjustments in almost all countries are carried out by Governments directly (and generally with consultation and support of national utilities). Given the limited transparency surrounding regulatory arrangements and activities, regulatory actors do not generally make reports on WSS performance publicly available. When these are available, they are rarely up-to-date. To a large extent, this regulatory environment is reflective of the broader political environment, characterised by very limited transparency and citizen participation in decision-making. It is important to note that Egypt and Mauritania are outliers in this regard, with annual reports publicly available online.

CONTENTS

ACKNOWLEDGEMENTS

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1

INTRODUCTION

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1. INTRODUCTION

The attainment of Sustainable Development Goal (SDG) 6 on ensuring the 'availability and sustainable management of water and sanitation for all' is a crucial target for most countries. Across Africa, many systemic weaknesses undermine WSS service provision, contributing to the failure to expand access at the required rate and deliver sustainable and equitable services over time. A well-functioning regulatory system is a key-driver in delivering safe, equitable and reliable water supply and sanitation (WSS) services. Regulators ensure that service providers are accountable and supported to perform effectively, provide services equitably, that the tariffs and other financing tools help achieve sustainability while meeting the needs of the urban poor, and that key performance indicators are available for purposes of service provider benchmarking and sector performance reporting.

There is no single 'best-practice' or one-size-fits-all approach to regulating WSS service delivery. Various arrangements exist for regulating WSS service delivery, including regulation by agency, regulation by contract, ministerial regulation, and self-regulation. However, there has been limited up-to-date reference material on the different regulatory setups across Africa. This lack of insight limits the understanding of common challenges and trends as well as the determination of good practices to serve as models for replication in countries looking to improve WSS regulation or institute necessary reforms. Within this context, the Eastern and Southern African Water and Sanitation Regulators Association (ESAWAS) commissioned a study to map the status of WSS regulatory arrangements in all 55 African countries.[8]

This report provides an overview of WSS regulation across the Northern Africa region in six countries: Algeria, Egypt, Libya, Mauritania, Morocco and Tunisia.[9] It includes a summary of the regulatory arrangements for WSS in rural and urban areas, as well as the closely related sub-sectors of environmental protection and water resources. Information is also provided on the legal and policy backing for WSS regulation, different spheres of regulation (regulated service providers, regulated service delivery types), regulatory mechanisms, and the state of the regulatory environment.

This region report is drawn from country reports which provide more detailed country-specific information, while a separate continent-wide report presents a top-level overview of the status of WSS regulation across Africa.

STRUCTURE

The remainder of this report is structured into the following sections:

- **Section Two** presents an overview of the socio-economic and WSS context.
- **Section Three** details the legal and policy frameworks for WSS regulation, providing key information on whether legal instruments sufficiently support WSS regulation.
- **Section Four** outlines the different regulatory models and regulatory arrangements for WSS regulation.
- **Section Five** presents the extent to which different service providers and service delivery types are regulated.
- **Section Six** presents the regulatory mechanisms that have been developed – and applied – across four aspects: standards and guidelines, monitoring and performance reporting, incentives, sanctions.
- **Section Seven** focuses on the regulatory environment for WSS regulation.

[8] The full list of 55 countries is based on the African Union's Member States. See: https://au.int/en/member_states/countryprofiles2

[9] The Sahrawi Republic was included in the original scope of the regional report, but due to the challenging political context, consultants could not gather the needed documentation and insights to develop a country-wide assessment of WSS regulatory arrangements.

2

WATER SUPPLY AND SANITATION CONTEXT

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2. WATER SUPPLY AND SANITATION CONTEXT

Northern Africa represents overall high levels of WSS coverage. Figures 1 and 2 present coverage rates for at least 'basic' water supply and sanitation services and plot these against per capita gross national income.[10] [11] These figures present overall, high levels of coverage of at least "basic" WSS services across the region, with Libya andEgypt reaching close to universal coverage particularly for water supply, followed by Tunisia, Algeria and Morocco. These WSS coverage rates are by far the highest of any of the five regions in Africa, with an average water supply coverage rate of 92% (as compared to 73% in Southern Africa, 71% in Western Africa, 62% in Central Africa and 56% in Eastern Africa) as well as for sanitation with an average rate of 85% (compared to 49% in Southern Africa, 36% in Eastern Africa, 32% in Western Africa and 31% in Central Africa). Mauritania is the outlier country, with a much lower coverage, particularly for sanitation. WSS coverage rates are largely linked to the level of economic development, with two notable positive outliers (Morocco for water supply and sanitation coverage and Tunisia for sanitation) and one negative outlier (Mauritania for both water supply and sanitation coverage).

Figure 1: At Least 'Basic' Water Supply Coverage and GNI per Capita (PPP)

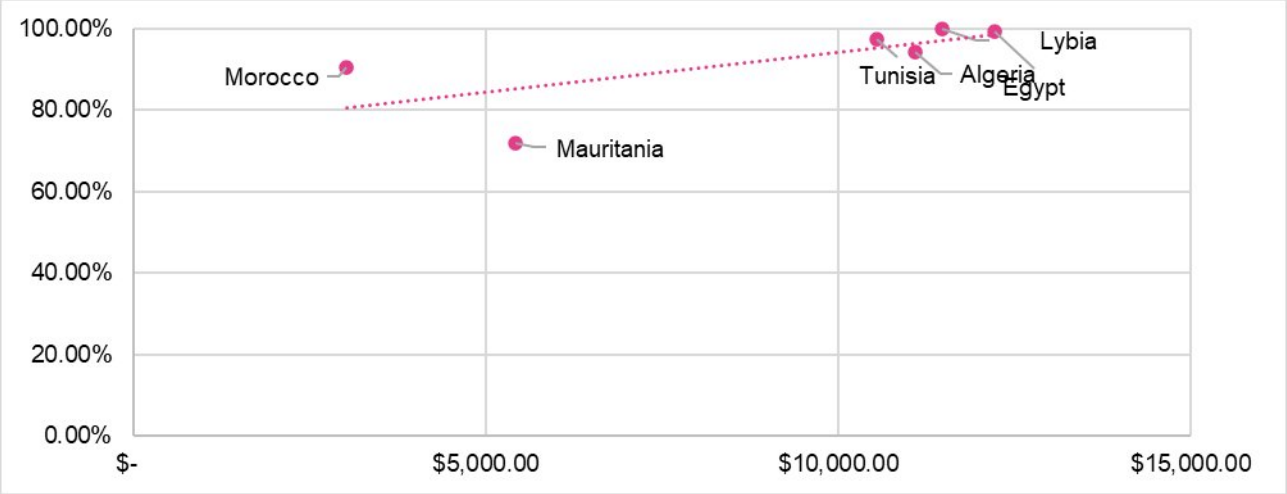
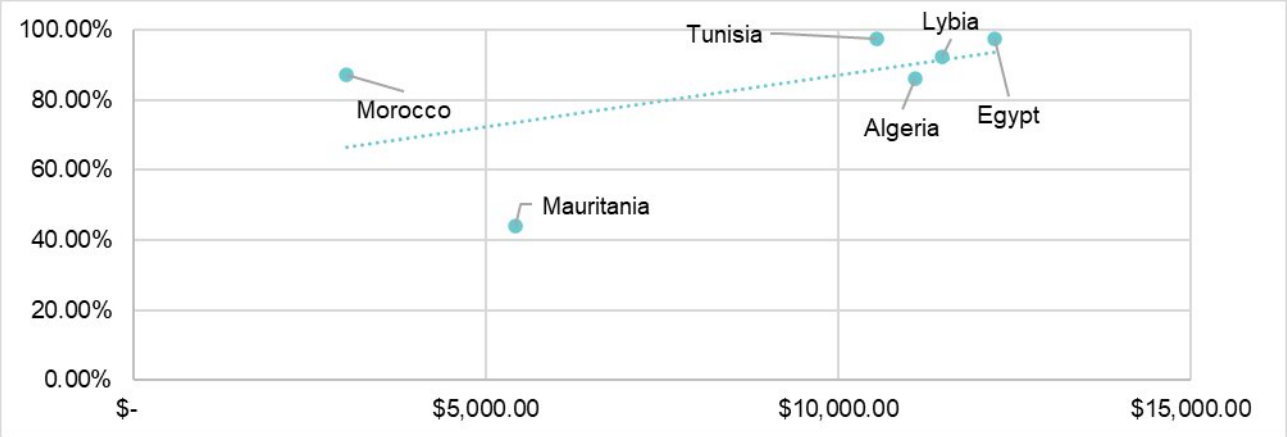


Figure 2: At Least 'Basic' Sanitation Coverage and GNI per Capita (PPP)



Northern African countries have largely made good progress in improving WSS services. Figures 3 and 4 present how WSS coverage rates have changed over the last two decades and WSS services extended particularly in Morocco and Mauritania, which started from a comparatively lower base than other countries

[10] Data presented in this section is predominantly sourced from the Joint Monitoring Program to aid analysis between countries based on a comparable methodology. However, Table One also includes country reported data on four key indicators.
[11] A basic water supply services refers to drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing. A basic sanitation service is the use of improved facilities which are not shared with other households.

and increased their average WSS coverage rates respectively by about 30% for Mauritania and about 24% for Morocco over the period 2000 to 2020.

Figure 3: At Least 'Basic' Water Supply Coverage (2000-2020) – Northern African Countries

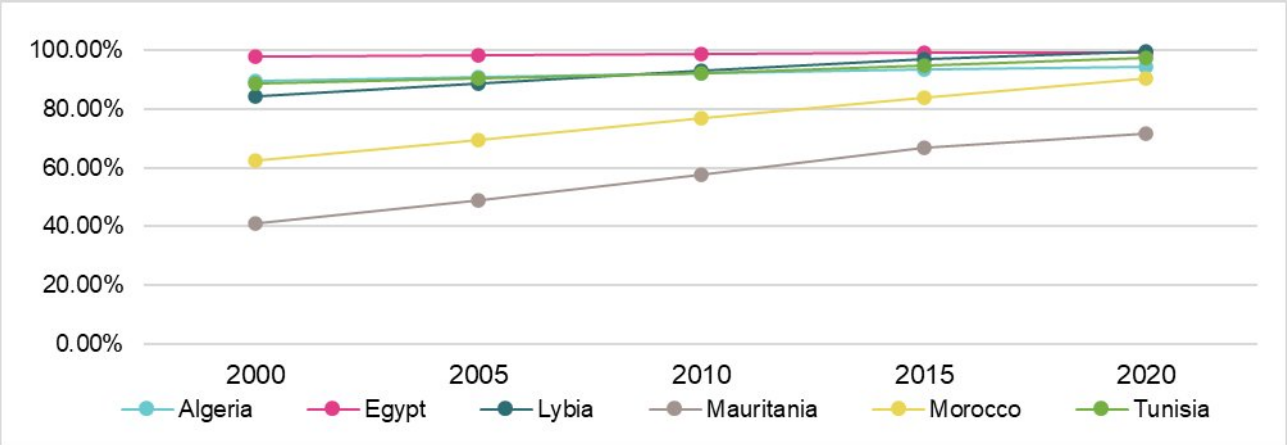
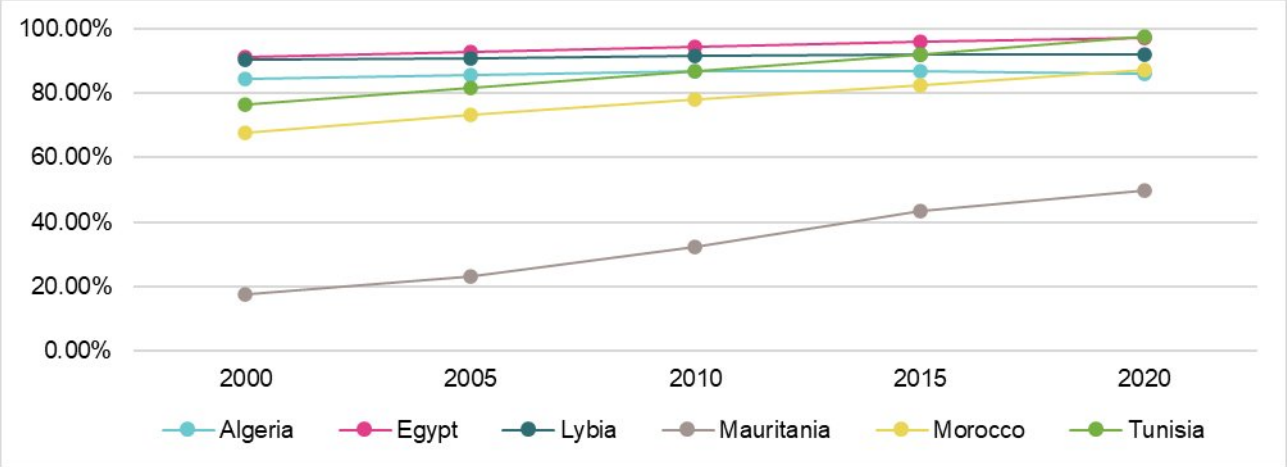


Figure 4: At Least 'Basic' Sanitation Coverage (2000-2020) – Northern African Countries



Northern Africa represents a diverse context in terms of economic and developmental dimensions. Table 1 presents data for each of the six Northern African countries for a range of key indicators, spanning economic, human development, demographic, climatic, fragility, and WSS aspects. Across each of the indicators detailed, Table 1 highlights two broad groups of countries. Algeria, Egypt, Libya and Tunisia form an initial group of countries presenting an average GNI per capita of $11,335 and high WSS average coverage rates at 97.8% for water supply and 93.2% for sanitation..Morocco and Mauritania form a second group, with an average GNI per capita of $4,218 and much lower average water supply and sanitation coverage rates respectively at 81% and 68.5%.

Table 1: Northern Africa Socio-Economic and Water Supply and Sanitation Indicators[12]

Country	Income Classif-ication	GNI per Capita (PPP)	Population	Rural Population (%)	Human Development Index (Rank, Max. 189)	Fragile States Index (Rank, Max. 179)	Climate Vulnerability and Readiness Index (Rank, Max. 182)	At Least 'Basic' Water coverage (%) (JMP)	Water coverage (%) (Country Reported)	At Least 'Basic' Sanitation Coverage (%) (JMP)	Sanitation coverage (%) (Country Reported)	Non-Revenue Water	Cost Coverage of WSS Service Providers
Algeria	LMIC	$11,090	43,85	26,3%	91	74	66	94,44%	99%[13]	85,96%	97%[14]	50%[15]	NA
Egypt	LMIC	$12,220	102	57%	116	39	103	99,44%	98.7%[16]	97,32%	61.5%	NA	NA
Libya	UMIC	$11,480	6,87	19%	105	17	91	99,89%	80%	92,11%	NA	40-50%[17]	10-16%[18]
Mauritania	LMIC	$5,416	6,67	44,67%	157	33	162	71,68%	57,6%[19]	49,83%	63,1%[20]	37,6%[21]	NA
Morocco	LMIC	$3,020	36,9	36,5%	121	83	57	90,40%	93.3%[22]	87,25%	68.1%	NA	NA
Republic of Tunisia	LMIC	$10,550	11,8	30,5%	95	94	65	97,55%	98,5%[23]	97,44%	76,6%[24]	25,8%[25]	NA

12

Indicator	Income Classification	GNI per Capita, PPP (US$)	Population	Rural Population	Human Development Index	Climate Vulnerability and Readiness Index	At Least 'Basic' Water coverage (%)	At Least 'Basic' Sanitation Coverage (%)
Source	World Bank Open Data. Available at: https://data.worldbank.org/				Human Development Data Centre. Available at: https://hdr.undp.org/en/data	Notre Dame Global Adaptation Initiative. Available at: https://gain.nd.edu/our-work/country-index/	Joint Monitoring Programme. Available at: https://washdata.org/	

13 JMP 2020, based on Multiple Indicator Cluster survey (MICS)
14 Ibid
15 Ibid
16 Country reported data for WSS coverage for Egypt is based on a 2020 Holding Company for Water and Wastewater report.
17 UNICEF- Assessment of Water supply systems and institutions in Libya
18 Ibid
19 EPCV 2019-2020
20 Ibid
21 Ibid
22 Country reported data for WSS coverage for Morocco is based on the 2018 L'Enquête Nationale sur la Population et la Santé Familiale.
23 Tunisia 2020 annual sector report
24 Ibid (this figure refers to connection to sewered sanitation only)
25 Ibid

3

POLICY AND LEGAL FRAMEWORKS FOR WATER AND SANITATION REGULATION

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3. POLICY AND LEGAL FRAMEWORKS FOR WATER AND SANITATION REGULATION

The policy and legal framework provide an enabling environment for regulation. The political, institutional, and legal setup of the market to be regulated are the foundations for effective regulation of the water supply and sanitation services sector. It is critical that the context, powers and boundaries of regulation are clearly and objectively defined, ensuring proper segregation of functions, and avoiding gaps or overlapping of functions among the various sector players. Under this section, policies, strategies and plans, laws and decrees were reviewed.

3.1. POLICIES AND FRAMEWORKS

National policies and/or strategies for WSS are largely in place or under development, but do not often make explicit mention of strengthening regulation or approaches for doing so. With the exception of Libya, Northern African countries have developed elements of a policy framework for WSS which take different forms (e.g., sector policy or strategy or plan or national programme). However, these are not always publicly accessible, do not always systematically articulate a clear sector-wide vision or provide specific targets or are under ongoing long-term revisions (e.g., Tunisia).[26] These documents do not systematically highlight the importance of improving WSS regulation, or articulate explicit steps for doing so through strategic frameworks to strengthen aspects of WSS regulation.

3.2. LEGAL INSTRUMENTS

Extensive legislative instruments have been developed for WSS in all Northern African countries. All Northern African countries have legislative instruments dedicated to WSS, which specify the mandates, functions and authority of key actors. Legislative instruments vary in forms and include water laws, water acts, decrees of application, or other decrees establishing regulatory authorities, national public companies (e.g., national water companies, national offices for sanitation) or a series of complementary laws or acts that address different aspects of WSS (i.e., water resources acts, public health acts, local government acts, environmental management acts).

The extent to which legislation addresses WSS regulation varies. Although Northern African countries have a rich and diverse WSS legislation in place, these documents do not always make explicit mention of sector regulation (e.g. in Tunisia, Libya) or reflect current sectoral arrangements (e.g. in Algeria where the Water Act mentions the possibility of independent water regulation which has not materialised since 2005). The ongoing revision of the Water Act and development of a Sanitation Act in Mauritania is a regional example of an effort to improve and enrich WSS legislation. Analogous efforts are ongoing in Egypt to enact a drinking water and wastewater law to equip Egyptian Water Regulatory Authority with a more solid legal foundation for fulfilling its role and strengthen its role in tariff setting. Figures 5 and 6 use a simple colour-coded traffic light system to show the extent to which legal instruments provide the required legal backing for WSS regulation.

> **0 = No Legal Backing.** Legal instruments either do not exist or make no mention of regulatory mandates or functions for water supply or sanitation.
>
> **1 = Limited Legal Backing.** Legal instruments support the regulation of water supply or sanitation services but do not provide sufficient legal backing. This usually occurs where legal instruments exist and specify regulatory mandates and responsibilities but fail to detail the specific regulatory functions and powers or consider the sub-sectors and types of service providers to be regulated.
>
> **2 = Strong Legal Backing.** Legal instruments address water supply or sanitation regulation, setting out regulatory mandates and functions.

[26] Challenges exist in accessing key WSS policies and strategies for many countries. **Algeria's** national water plan, water resources masterplan, and national sanitation development plan are not publicly available; **Libya** does not have a WSS policy in place; **Morocco's** National Water Plan, Water Resource Management Plans or National Priority Programme for Drinking Water and Irrigation are not publicly accessible. There is currently no sector policy in **Tunisia** and work is ongoing to develop a water strategy for 2050 and should be finalised in 2023.

On the water supply side, Figure 5 highlights a generally positive picture, with four of the six countries having an appropriate and sufficiently detailed legal backing for regulating water supply services and two countries having basic legislative instruments in place. In the case of Tunisia, legal instruments are in place for governing WSS in general but do not specifically detail regulatory arrangements.

Figure 5: Legal Instruments for Regulating Water Supply Services

As Figure 6 indicates, three Northern African countries do not have sufficiently detailed legal instruments for regulating sanitation services and one country (Mauritania) does not have any specific regulation related to sanitation (beyond general legislation related to environmental protection). The following notable considerations can be made:

i. ***Sewerage Bias*.** When legal instruments cover sanitation, they tend to focus on sewered sanitation services and neglect to address onsite sanitation and service providers completely.

ii. ***Poorly Defined Mandates and Functions*.** Responsibilities for regulating sanitation services are often included in local government, public health, and environmental management acts. In these instances, regulatory mandates for sanitation are often not explicitly defined and regulatory powers and functions may be absent.

Figure 6: Legal Instruments for Regulating Sanitation Services

4

REGULATORY ARRANGEMENTS

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4. REGULATORY ARRANGEMENTS

Any regulatory model must be fit-for-purpose and custom designed for a specific country's institutional context and political economy. Regulation tends to be incremental, with a focus on what is possible to be regulated. To ensure the effectiveness of its regulatory actions, the regulator may adopt a variety of regulatory strategies to suit the sector context. There are four main models by which regulation is instituted. These are:

I. ***Regulation by Agency.*** A regulatory body (semi-) autonomous from the government has discretionary powers to regulate WSS or aspects of WSS. This regulatory agency can be mandated to perform a specific set of functions (i.e., economic regulation) or hold a more comprehensive set of powers for regulating WSS service delivery.

II. ***Regulation by Contract.*** An approach whereby a public entity (other than an autonomous regulatory agency) and a service provider agree on contractual clauses that determine how key aspects of WSS service provision are defined and controlled, such as tariffs and service standards. In these cases, the contract represents the key document establishing or defining the provisions to be abided by rather than existing regulations or standards.

III. ***Ministerial Regulation.*** A ministry responsible for WSS – or an aspect of WSS – is tasked with performing some or all regulatory responsibilities for WSS. For example, where a ministry is responsible for developing standards and guidelines, as well as overseeing some WSS service providers and applying regulatory tools (i.e., standard enforcement, monitoring, performance reporting).

IV. ***Self-Regulation.*** A service provider (typically a public utility or unit of local government) provides WSS services and is legally mandated to perform regulatory activities upon itself. This usually includes setting tariffs and performance standards and carrying out performance monitoring and reporting.

Across Northern Africa, various regulatory models are applied to WSS service provision. Table 2 details the main regulatory models applied per country and in total across the Northern Africa Region, with the predominant regulatory model marked as ✔. It does not consider regulatory responsibilities for water resources or environmental protection (see Table 3). It highlights how most countries have mixed regulatory arrangements based on multiple regulatory models applied across the four WSS sub-sectors (urban water supply, rural water supply, urban sanitation, rural sanitation) and for different service providers.

Table 2: Regulatory models Applied for Water Supply and Sanitation Service Provision

Country	Regulatory model			
	Regulation by Agency	Ministerial Regulation	Regulation by Contract	Self-Regulation
Algeria	✗	✓	✔	✗
Egypt	✔	✗	✗	✗
Libya	✗	✔	✗	✗
Mauritania	✔	✗	✗	✗
Morocco	✗	✓	✔	✗
Tunisia	✗	✓	✔	✗
Total – Regulatory model Applied	2 (33%)	4 (67%)	3 (50%)	0 (0%)
Total – Predominant Regulatory model	2 (33%)	1 (17%)	3 (50%)	0 (0%)

The use of multiple regulatory models and the variations in their application makes it is useful to note the primary regulatory model applied in each country.[27] Figure 7 presents this.

Figure 7: Predominant Regulatory model Applied for Water Supply and Sanitation Service Provision

Egypt and Libya apply one type of regulation to the full WSS sector, whilst Algeria, Tunisia, Morocco and Mauritania have adopted hybrid regulatory arrangements within the WSS sector. Table 3 details the main regulatory actors and regulatory models applied for each Northern African country across several WSS sub-sectors. It illustrates the fact that regulatory arrangements are relatively well defined and based on a combination of ministerial, contract and agency-led regulation. It also reflects the various types of WSS service providers, with an overall tendancy of associating a type of service provider with a specific type of regulation (e.g., national companies are regulated by one or several ministries which implement their regulation through programme-contracts or an independent authority when it exists; operators are regulated through delegated or concessionary contracts, and municipalities regulated by lead ministries). It is important to note that Table 3 provides an overview of on-paper regulatory arrangements. To a large extent, the assessment has highlighted the existence of *de facto* self-regulatory practices, largely by national public utilities. This is the case in Mauritania for example, where the regulatory authority has the mandate to exercise its regulatory functions on all water service providers but in practice, the National Water Company (SNDE) practices self-regulation.

Minor evolutions to the regulatory framework in Northern Africa have been recorded. Efforts are ongoing in Mauritania to reflect the extension of delegated services in rural areas in a revised Water Act and develop a Sanitation Act to pave the way for sanitation regulation. Egypt is working on stregthening the role of Egyptian Water Regulatory Authority around tariff setting and the government is enacting a drinking water and wastewater law that would equip this national regulator with a more solid legal foundation for fulfilling its role. Efforts to strengthen the regulatory framework, clarify or rationalise roles and responsibilities have either been very limited or stalled for political reasons. In Tunisia, the review of the Water Act was initiated in 2012 with a view to introduce an independent water regulator but the process was stalled with Parliament's suspension in 2019. In Algeria, although the Water Act of 2005 mentions an independent water regulator and such entity was established in 2008, it was never operationalised and formally dissolved in 2018.

[27] The predominant regulatory form refers to the regulatory form under which the primary service provider in each country is regulated. In most cases, this refers to how a national or regional utility is regulated.

Table 3. Regulatory model

Key			
Regulation by Agency	Ministerial Regulation	Regulation by Contract	Self-Regulation

Country	Urban Water	Rural Water	Urban Sanitation	Rural Sanitation	Water Resources Management	Environ-mental Protection
Algeria	Programme-contract between Ministry of Water Resources and Algerian Water Company and the National Office for Sanitation					Ministry of Environment and Renewable Energies
		Ministry of Water Resources		Ministry of Water Resources		
	Delegated contracts between the Algerian Water Company or the National Office for Sanitation and subsidiary companies					
Egypt	The Regulatory Authority					
					Ministry of Water Resources and Irrigation	Environmental Affairs Agency
Libya	Ministry of Water Resources					
Mauritania	The Regulatory Authority	The Regulatory Authority	Ministry of Water Supply and Sanitation			Ministry of Environment and Sustainable Development
		Delegated contracts with private operators				
Morocco	Programme contract between various ministries and the National Office for Electricity and Water supply				Water Basin Agencies	Ministry of energetic transition and sustainable development
	Concessionary contracts between Ministry of Interior, municipalities and private operators		Concessionary contracts between Ministry of Interior, municipalities and private operators			
	Delegated contracts between Autonomous agencies and Ministry of Interior					
		Ministry of Interior		Ministry of Interior		
Republic of Tunisia	Programme contract between the Ministry of Agriculture, Water Resources and Fisheries and the National Water Company		Programme contract between the Ministry of Environment and the National Office for Sanitation		Ministry of Environment and National Agency for Environmental Protection	
		Ministry of Agriculture, Water Resources and Fisheries				

5

SPHERES OF REGULATION

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5. SPHERES OF REGULATION

WSS service delivery is mainly comprised of network infrastructures which create natural monopolies that need to be regulated. The extent and diversity of the scope of the regulator's mandate and the specificities of the country's political-administrative governance model may require adoption of different regulatory regimes for different service providers. In this section, who and what is regulated was examined.

5.1. REGULATED SERVICE PROVIDERS

Different regulatory models are applied to different types of WSS service providers. Section 4 highlighted how, in most countries, several actors hold regulatory responsibilities for WSS and that multiple regulatory models are applied. For the Northern African region, this variation is largely explained by the existence of multiple types of WSS service providers in each country and that varying regulatory arrangements have often been developed for each of these. This is not surprising considering the markedly different challenges in – and requirements for – regulating national or regional utilities and private operators of varying sizes and degrees of formality. Table 4 details the main WSS service providers for each Northern African country, the services they provide, the primary actors responsible for their regulation and the regulatory model applied.

Regulatory activities focus on different types of WSS service providers in each country. Algeria, Tunisia and Morocco have adopted similar regulatory arrangements whereby the national water companies or sanitation offices are overseen by the lead ministry and **regulated by a programme contract**. Other operators (private operators in Morocco or subsidiary companies of the mother WSS company in Algeria) are regulated via **other contracts** and deconcentrated or decentralised service provision (led by a ministerial unit in Tunisia, or municipalities in Algeria or Morocco) are **overseen by a lead ministry** without an intermediary contract in place. In Egypt, the regulatory agency regulates all WSS services provided by affiliated- deconcentrated companies of the individual water and wastewater company. In Mauritania, although a regulatory agency is in place, it only regulates a small segment of the WSS services provided by private operators (which provide services to just 7% of the rural population), leaving other sub-sectors largely self-regulated.

Table 4: Regulatory Responsibilities – Water Supply and Sanitation Service Providers

Country	Service Provider	Service Provider Type	Services Provided	Regulatory Actor	Regulatory model
Algeria	Algerian Water Company (ADE)	Public Company	Piped Water Supply	Ministry of Water Resources	Regulation by contract
	National Sanitation Office (ONA)		Sewered Sanitation	Ministry of Water Resources	
	ADE/ONA Subsidiary Companies	Public Subsidiary Companies	Piped Water Supply; Sewered Sanitation	ADE/ONA	
	Municipalities	Local Government	Piped Water Supply; Sewered Sanitation; Point Water Sources	Ministry of Water Resources	Ministerial Regulation
Egypt	Water and Sanitation Companies	Public Company	Piped Water Supply; Sewered Sanitation	Egyptian Water Regulatory Authority	Regulation by Agency
	Informal Service Providers	Private Providers	Point Water Sources; Sceptic Tank Emptying	No Regulatory Arrangement Specified	

Libya	General Company for Water and Wastewater	Public Company	Piped Water Supply; Sewered Sanitation, Wells	Ministry of Water Resources	Ministerial Regulation
	Informal Service Providers	Private Providers	Point Water Sources; Sceptic Tank Emptying	No Regulatory Arrangement Specified	
Mauritania	National Water Company (SNDE)	Public Company	Piped Water Supply	The Regulatory Authority	Regulation by Agency
	National Office for Water Services in Rural Areas (ONSER)	Public Company	Piped Water Supply; Point Water Sources		
	National Sanitation Office (ONAS)	Public Company	Sewered Sanitation	Not defined; Ministry of Water Supply and Sanitation by default	Ministerial Regulation
	Private operators	Private Companies	Piped Water Supply	The Regulatory Authority	Regulation by Agency
Morocco	Private operators	Private companies	Piped Water Supply; Sewered Sanitation	Ministry of Interior and Municipalities	Regulation by Contract
	National Office for Electricity and Water Supply (ONEE)	Public company	Piped Water Supply; Point water sources; Sewered Sanitation	Ministries, including Ministry of Interior	
	Autonomous Agencies	Municipal-owned public entities	Piped Water Supply; Sewered Sanitation	Ministry of Interior	
	Municipalities	Local government	Point water sources		Ministerial Regulation
Republic of Tunisia	National Water Company (SONEDE)	Public company	Piped Water Supply	Ministry of Agriculture, Water Resources and Fisheries	Regulation by Contract
	National Sanitation Office (ONAS)	Public company	Sewered Sanitation	Ministry of Environment	
	Rural Engineering Service Units	Deconcentrated ministerial entity	Piped Water Supply; Point water sources	Ministry of Agriculture, Water Resources and Fisheries	Ministerial regulation

5.2. REGULATED SERVICE DELIVERY TYPES

The regulation of WSS services predominantly focuses on piped water supply services and sewered sanitation. Table 5 uses a simple colour-coded traffic light system to present an overview of the extent to which regulations and regulatory mechanisms have been developed for four core WSS service delivery types and whether these are regulated at scale.[28] Table 5 highlights how aside from Libya, regulatory activities are largely in place for networked piped water supply services and sewered sanitation which are the main technologies used for providing WSS in Northern Africa by large and formalised service providers. Although regulations have been developed and are largely applied at scale for these service delivery types, it is important to acknowledge that important challenges remain in the regulatory mechanisms applied to the providers of these services (see Section Six). Except for Egypt, Table 5 also highlights the limited regulations in place – and regulatory activities performed – for on-site sanitation, which is not specifically addressed in legislative

[28] Scoring: 0 = There are no regulations for this type of service provision; 1 = Regulations developed but rarely applied or only applied on a limited basis; 2 = Regulations developed and applied at scale.

instruments, does not fall clearly within the mandate of one or several authorities and for which limited regulatory mandates have been established.

Table 5: Extent of Regulation of Different Service Delivery Types

Country	Water Supply		Sanitation	
	Networked Piped Water Supply	Point Water Sources	Sewered Sanitation	On-Site Sanitation
Algeria	2	1	2	0
Egypt	2	N/A	2	2
Libya	1	0	1	0
Mauritania	2	0	0	0
Morocco	2	1	2	0
Tunisia	2	1	2	0

Table 5 shows overall moderate to good performance across the Northern Africa region in the regulation of water supply services. For Mauritania, it reflects a situation where existing regulation solely applies to a specific segment of the water supply sub-sector under private operators' management but not to other types of service providers. The scoring of Libya is low compared to other northern countries due to the lack of regulatory developments. This is largely linked to the broader political instability and ongoing conflict the country has experienced.

Less progress has been made regulating sanitation services compared to water supply. Table 5 also highlights that less progress has been made developing regulations for sanitation services and ensuring these are applied at scale relative to water supply services. This is largely a reflection on the limited progress made in establishing and applying regulation for onsite sanitation. Egypt has made significant progress developing and applying regulatory mechanisms for wastewater as well as specifications for emptying and managing sceptic tanks. In Algeria, Morocco and Tunisia, the national offices for sanitation have a clear mandate for extending sanitation services to unserved areas, but there is less clarity on their role for delivering, managing and regulating onsite sanitation particularly in rural areas.

6

REGULATORY MECHANISMS

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6. REGULATORY MECHANISMS

A regulatory mechanism is an intervention or process used by a regulatory actor to guide and influence the behaviour and performance of key stakeholders within the WSS sector, particularly service providers. The existence of 16 individual regulatory mechanisms were examined across four areas:

I. ***Standards and Guidelines.*** Whether standards and guidelines have been developed for quality of service, tariff setting, planning and reporting, citizen involvement, and environmental protection, and whether developed standards and guidelines adequately consider pro-poor aspects.
II. ***Monitoring and Performance Reporting.*** Whether there is adequate monitoring and reporting by service providers and the regulatory authority, and whether an appropriate set of service quality, economic efficiency and operational sustainability indicators are tracked.
III. ***Incentives.*** Whether regulatory authorities are applying financial and reputational incentives to WSS service providers.
IV. ***Sanctions.*** Whether regulatory authorities can suspend or remove the license of WSS service providers and apply fines to WSS service providers for breaching regulations.

Table 6 details the 16 regulatory mechanisms investigated across these four areas. For each of these, a simple Yes or No grading was utilised to enable the aggregation of country findings to the regional and continent-wide levels. Consequently, noteworthy variations do exist in the performance against each of these aspects for countries that have received the same score. It is critical to note that this assessment principally focused on the existence of these regulatory mechanisms in relation to the primary regulated WSS service providers in each country (i.e., national utilities, large private operators) rather than for smaller, deconcentrated and sometimes informal service providers such as water committees or private vacuum tanker operators and pit emptiers. Mauritania is a notable exception here as the assessment focused on the water sector segment under private operators' management (concerning only 7% of the rural population). As is highlighted throughout this section, a considerably less developed set of regulatory mechanisms have been developed for these types of service providers and the services they provide.

Table 6: Regulatory Mechanisms Examined

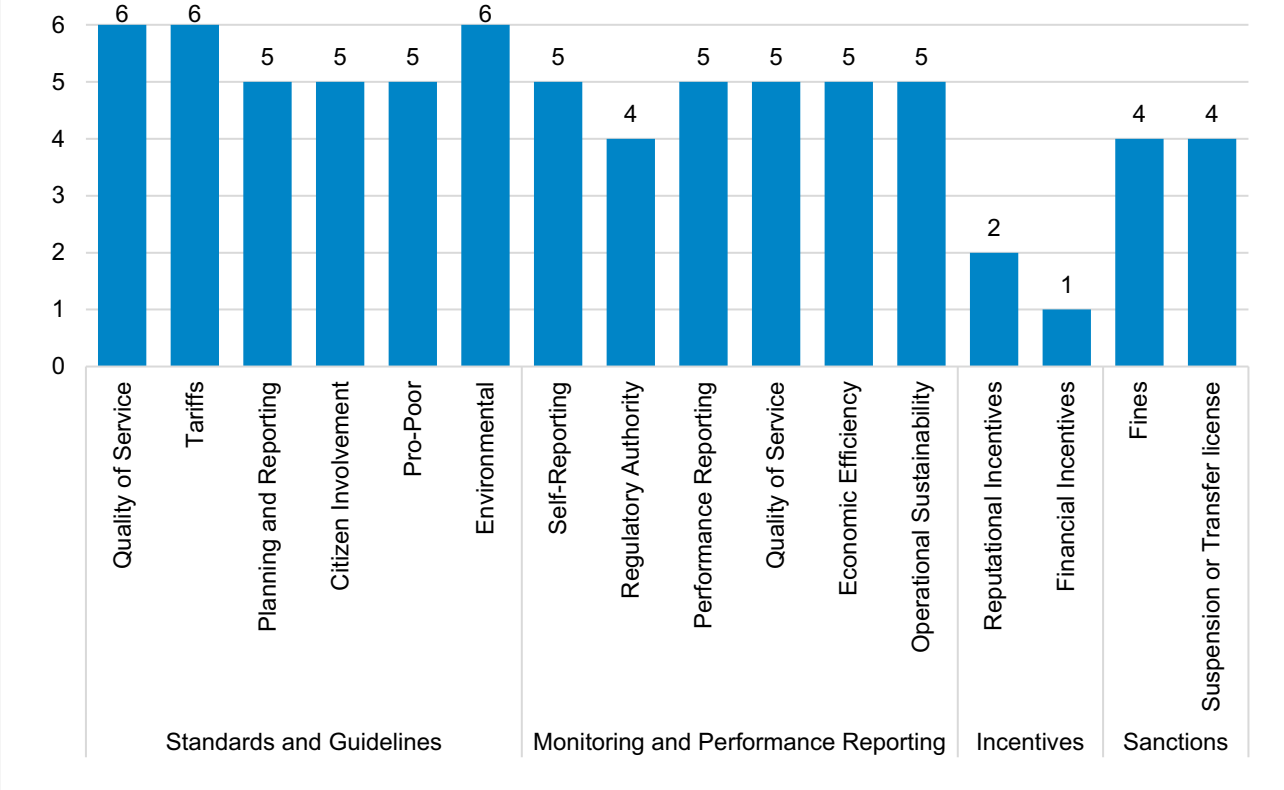
Regulatory Mechanism	Aspect
Standards and Guidelines	Whether standards and guidelines exist for **service levels** and **water quality**.
	Whether standards and guidelines exist for **tariff rates, tariff setting** and **tariff adjustments**.
	Whether standards and guidelines exist for the **planning** activities of WSS service providers (i.e., business planning, financial projections, accounting, annual reporting).
	Whether standards and guidelines exist for **citizen involvement** and **complaints mechanisms**.
	Whether standards and guidelines are designed to help ensure **poorer** and **potentially marginalised** populations receive affordable services.
	Whether standards and / or guidelines exist for **environmental protection**.
Monitoring and Performance Reporting	Whether appropriate **quality of service** indicators are periodically tracked by the regulator.
	Whether appropriate **economic efficiency** indicators are periodically tracked by the regulator.
	Whether appropriate **operational sustainability** indicators are periodically tracked by the regulator.
	Whether regulated service providers regularly (i.e., annually) **submit reports** and **data** to regulatory actors.
	Whether regulatory actors annually **inspect** and **audit** regulated service providers.
	Whether annual **reports** are produced on sector and regulated **service provider performance**.
Incentives	Whether regulatory actors use **financial incentives** to promote improved service provider performance.
	Whether regulatory actors use **reputational incentives** to promote improved service provider performance.
Sanctioning	Whether regulatory actors have the ability to issue **fines** to service providers.
	Whether regulatory actors have the ability to **suspend**, **remove**, or **transfer** service provider licenses.

With the exception of Libya, Northern African countries have made good progress in developing and applying regulatory mechanisms for WSS service provision. Figure 8 provides an overview of each country's performance against these 16 regulatory mechanisms. It highlights generally good and to very good performance across the Northern Africa region. With the exception of Libya, all countries have developed at least 12 of the 16 regulatory mechanisms investigated.

Figure 8: Top-Level Overview of Regulatory Mechanisms for WSS Service Provision

Significant progress has been made in developing standards and guidelines as well as monitoring and performance reporting. Figure 9 details the number of Northern African countries- out of the six studied- that have developed the 16 regulatory mechanisms investigated. It highlights that across the six countries, significant progress has been made developing standards and guidelines as well as in monitoring and performance reporting; conversely progress has been very limited in developing reputational or financial incentives and even more so, applying sanctions that exist in legislation.

Figure 9: Development of Each Regulatory Mechanism for WSS Service Provision



6.1. STANDARDS AND GUIDELINES

Standards and guideline development is an area that has made very good progress, with a few exceptions. Table 7 details which Northern African countries have developed standards and guidelines for quality of service, tariff setting, planning and reporting, citizen involvement, and environmental protection, and whether standards consider pro-poor aspects. It highlights that most countries have made significant progress across the board, but efforts are still required to develop standards and guidelines for pro-poor service delivery in Egypt and Libya, with the latter experiencing pressing challenges in other areas too. Box 1 details Mauritania's specifications for delegated drinking water service provision.

Table 7: Standards and Guidelines

Country	Quality of Service	Tariffs	Planning and Reporting	Citizen Involvement	Pro-Poor	Environmental
Algeria	✓	✓	✓	✓	✓	✓
Egypt	✓	✓	✓	✓	✗	✓
Libya	✓	✓	✗	✗	✗	✓
Mauritania	✓	✓	✓	✓	✓	✓
Morocco	✓	✓	✓	✓	✓	✓
Republic of Tunisia	✓	✓	✓	✓	✓	✓
Total	6	6	5	5	4	6

Box 1: Mauritania's Specifications for Delegated Drinking Water Service Provision

The Regulatory Authority in charge of regulating the water supply sector in Mauritania developed standard specifications for delegating drinking water service provision in 2008. This document is used as a basis for structuring the delegated contracts with private operators managing piped water schemes in rural areas. This detailed document includes specifications related to the following key aspects governing private sector participation:

- Duration, modification and termination of the delegation;
- Obligations of the delegated service provider (operation and maintenance, relations with users, expenditures under its responsibility, bookkeeping, reporting and staffing);
- Obligations of the Mauritanian Government (sector Ministry, the regulatory agency and the municipalities);
- Financial arrangements (annual budgeting, setting and revisions of the water tariff, investing from the delegated service provider);
- Arrangements for private connections (demand and financing of household private connections, organisation or works);
- Audits and conflict resolutions (auditing of the accounts, conflict resolution).

Although these specifications only apply to a small proportion of rural piped water schemes in Mauritania (serving 7% of the rural population), this is an example of clear and comprehensive standards and guidelines annexed to delegated contracts and publicly available. The full document is available here: https://www.are.mr/pdfs/eau_cdc_cds.pdf

6.2. MONITORING AND PERFORMANCE REPORTING

Monitoring and performance reporting of countries' primary WSS service providers represents an area of moderate performance across Northern Africa. Table 8 presents information relating to the self-reporting by WSS service providers to regulatory actors, inspections and audits of service providers conducted by regulatory actors, and the performance reporting (i.e., publishing of annual reports) conducted by regulatory actors and WSS service providers. This information focuses on the primary WSS services providers (i.e., national or regional utilities, large private operators) within each country rather than smaller service providers (i.e., informal pit emptiers or water committees). It highlights the limited updating of information related to performance reporting and consolidation, particularly from the regulatory authorities. With the exception of Egypt and Mauritania, up-to date WSS performance reports were largely publicly unavailable.

Table 8: Monitoring and Performance Reporting

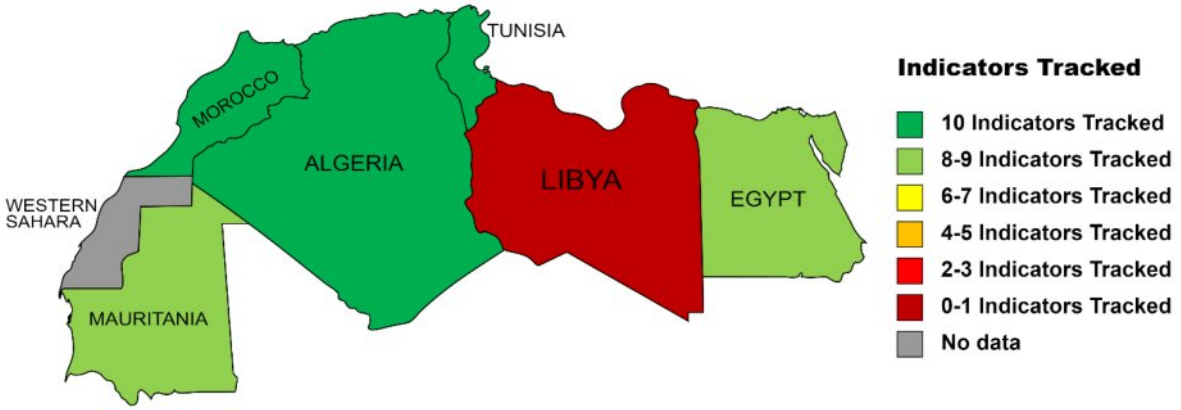
Country	Service Provider Sharing of Performance Data	Regulatory Authority Monitoring / Data Validation	Production of Reports on Service Provider Performance
Algeria	**Subsidiary companies of the Algerian Water Company and National Office for Sanitation; Municipalities**	**Ministry of Water Resources/ Algerian Water Company and National Office for Sanitation**	**Ministry of Water Resources**
	Mandated to submit detailed monthly and annual reports to Algerian Water Company / the National Office for Sanitation on service quality, economic efficiency and operational sustainability. The modalities for	Required to inspect financial and technical performance of Algerian Water Company / the National Office for Sanitation; however, frequency of	Required to produce sector-wide performance reports. However, extent to which this is done is not clear as reports are not made publicly available.

	Algerian Water Company / the National Office for Sanitation and municipal reporting are not clear.	inspections and audits are unclear.	
Egypt	**Water and Sanitation Affiliated Companies; Holding Company for Water and Wastewater**	**Egyptian Water Regulatory Authority**	**Egyptian Water Regulatory Authority**
	18 indicators for water resources, operations, general management performance, and financial management are collected on a regular basis and submitted to the Holding Company. Annual Return Information reports are prepared by the Holding Company for Water and Wastewater and submitted to the Ministry of Housing Utilities and Urban Communities	The modalities for financial and technical inspection of the Holding Company for Water and Wastewater (HCWW) and ACs are not clear. HCWW conducts at least monthly performance reviews with Water and Sanitation Companies and utilises a monitoring and analysis system with a key performance indicator database	Annual reports are consolidated and shared publicly.
Libya	**General Company for Water and Wastewater**	**Ministry of Water Resources**	**General Company for Water and Wastewater**
	No clear reporting mandates, and no periodic or structured reporting recorded.	Inspection and auditing procedures are not in place.	Performance reporting is not in place.
Mauritania	**National Water Company; National Office for Sanitation; National Office for Water Services in Rural Areas**	**The Regulatory Authority**	**The Regulatory Authority**
	Private operators are mandated to submit quarterly performance report to the Regulatory Authority as well as the Public Service Project Managers and districts on 23 indicators related to water resource, operations, management performance. Other requirements for self-reporting from other service providers are not clearly articulated.	Annual plans are consolidated by the regulatory authority and submitted to the Prime Minister's office.	Produces performance reports, which are made publicly available.
Morocco	**Municipalities National Office for Electricity and Water Supply, Private operators**	**Ministry of Interior; Municipalities**	**Ministry of Interior**
	All service providers are mandated to carry out detailed and regular service monitoring and report to their respective authority (municipality, Ministry of Interior), but the exact frequency is not clear.	Required to inspect financial and technical performance of service providers; however, frequency of inspections and audits are unclear.	Required to produce annual sector performance reports. However, extent to which this is done is not clear as reports are not made publicly available.
Republic of Tunisia	**National Water Company; National Sanitation Office; municipalities**	**Ministry of Agriculture, Water Resources and Fisheries; Ministry of Environment**	**National Water Company; National Sanitation Office**
	Required to produce annual statistical reports which provide an overview of service quality, economic efficiency and operational sustainability.	Required to inspect financial and technical performance of service providers; however, frequency of inspections and audits are unclear.	Required to produce annual sector reports. However, extent to which this is done is not clear as reports are not made publicly available.

Regulatory actors are largely consolidating or tracking performance across a wide range of indicators for quality of service, economic efficiency and, to a lesser extent, operational sustainability. Figure 10 provides an overview of how many of the ten investigated indicators (see Table 9) are tracked and reported

on an ongoing basis (i.e., annually) by country. It highlights the wide range of indicators tracked, with Algeria, Morocco and Tunisia collecting the maximum number of indicators, and Egypt and Mauritania collecting a vast majority of indicators. However, none of the investigated indicators are being tracked in Libya.

Figure 10: Tracked and Reported WSS Indicators



Box 2: Egypt – Monitoring and Performance Reporting of Wastewater and Sanitation

The Egyptian Water and Sanitation Regulatory Authority (EWRA) is in charge of overseeing service delivery. To help ensure the long-term viability of services at the required level of quality and efficiency, EWRA has established a well-defined set of performance indicators. Management Information Systems (MIS) have been developed to enable EWRA to conduct structured performance monitoring, benchmarking, and utility certification on a regular basis. Importantly, the assessed indicators span not just water supply services but also include several critical wastewater and sanitation indicators. Key wastewater service delivery and wastewater treatment efficiency indicators include:

- Coverage of wastewater services divided into three categories (wastewater network, on-site sanitation, and no service).
- Percentage of treatment levels classified as "no treatment," "primary treatment," and "secondary treatment".
- Percentage of overflows per 100-kilometer network.
- Wastewater treatment efficiency (determined by the effluent's compliance with physical, chemical, and biological (bacteriological) standards).

The information and data gathered by EWRA is then used to produce an Annual Information Report that also includes recommendations from EWRA with a view to enhancing sector legislation enforcement and overall sector performance.

Table 9 details which indicators are tracked for the main WSS service providers. This includes indicators tracked and reported by WSS service providers themselves and indicators validated and sometimes reported by a regulatory authority. It highlights how the greatest progress has been made in monitoring indicators related to the quality of service and to a lesser extent, economic efficiency, while indicators for staff per 1,000 connections are not collected in three out of the six countries. Box 2 presents an overview of monitoring and performance reporting on wastewater and sanitation in Egypt.

Table 9: Indicators Tracked / Reported

Country	Quality of Service				Economic Efficiency				Operational Sustainability	
	Water Coverage	Sanitation Coverage	Hours of Supply	Water Quality	Metering Ratio	Non-Revenue Water	O&M Cost Coverage by Revenue	Revenue Collection Efficiency	Staff cost as Proportion of O&M	Staff per 1,000 Connections
Algeria	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Egypt	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
Libya	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
Mauritania	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗
Morocco	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Republic of Tunisia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total	6	5	5	5	5	4	5	5	5	4

There is limited monitoring and performance reporting of services delivered by municipalities. In all countries where WSS services are partly delivered by municipalities or municipal-led entities (e.g., Algeria, Morocco, Tunisia), there is limited, or no clear and consistent performance monitoring and municipalities are not included in WSS sector monitoring. To a large extent, performance monitoring is segmented and led by the service providers themselves.

6.3. INCENTIVES

Reputational or financial incentives to stimulate improved performance are largely not in place in Northern Africa. The predominance of publicly driven WSS provision in all Northern African countries has led to a situation of quasi-monopoly of state-owned service providers, at least for large segments of the sector. Table 10 presents summary information on the financial and reputational incentives applied by regulatory actors. It highlights that regulatory actors in most countries have not developed incentives for promoting good performance by WSS service providers, either reputational or financial. Egypt is the one country applying reputational incentives (see Box 3), and in no countries are regulatory actors applying financial incentives. Incentives are likely to be introduced in Morocco, for large private operators providing water supply and wastewater in the four largest cities of the countries under concessionary contracts, but their contracts are not accessible. In Mauritania, although there is no formal mechanism in place to reward good performance, service providers are exempt from the tax levy to the Regulatory Authority which is widely considered to act as a general incentive to perform. Box 3 provides an overview of Egypt's internal performance monitoring and support within the Holding Company for Water and Wastewater.

Table 10: Financial and Regulatory Incentives

Country	Financial Incentives Applied	Note	Reputational Incentives Applied	Note
Algeria	✗	**Ministry of Water Resources** In the context of full public service provision model (combining municipal, state-owned companies and public subsidiary companies), there are no financial incentives applied.	✗	**Ministry of Water Resources** In the context of full public service provision model (combining municipal, state-owned companies and public subsidiary companies), there are no reputational incentives applied.
Egypt	✗	**Egyptian Water Regulatory Authority** There is no mention of financial incentives in the legislative framework relative to delegation of service provision	✓	**Egyptian Water Regulatory Authority** Good performance is associated with higher levels of support and ongoing assistance from the Holding Company for Water and Wastewater and can be assimilated to an incentive.
Libya	✗	**Ministry of Water Resources** Financial incentives are not applied, in part due to its position as the sole service provider.	✗	**Ministry of Water Resources** Reputational incentives are not applied, in part due to its position as the sole service provider.
Mauritania	✗	**The Regulatory Authority; Ministry of Water Supply and Sanitation** Although there is no formal mechanism in place to reward good performance, service providers are exempt from the tax levy to the Regulatory Authority which is widely considered to act as a general incentive to perform.	✗	**The Regulatory Authority; Ministry of Water Supply and Sanitation** There are no reputational incentives in place.

Morocco	✗	**Ministry of Interior; Municipalities** There is no mention of performance incentives in the legislative framework relative to delegation of service provision	✗	**Ministry of Interior; Municipalities** Reputational risks are minimal in a context of service provision largely governed by a combination of state-owned companies and long-term concessionary contracts
Republic of Tunisia	✗	**Ministry of Agriculture, Water Resources and Fisheries; Ministry of Environment** In the context of state-owned company monopolies, there are no financial incentives for service providers to perform particularly well.	✗	**Ministry of Agriculture, Water Resources and Fisheries; Ministry of Environment** In the context of state-owned company monopolies, there are no reputational incentives for service providers to perform particularly well.

Box 3: Egypt's internal performance monitoring and support within the Holding Company for Water and Wastewater

In Egypt, WSS services are provided by the Holding Company for Water and Wastewater (HCWW), a government-owned company that operates and manages assets through its regional subsidiaries, the Water and Sanitation Companies (WSCs). Despite the existence of a well-established regulatory arrangement governed by the water and wastewater regulatory agency (Egyptian Water Regulatory Authority), HCWW continues to oversee WSC's operations and performs internal regulation. HCWW conducts at least monthly performance reviews with WSCs and utilises a monitoring and analysis system with a key performance indicator database. The process also includes:

- Process benchmarking.
- Ideas for performance improvement.
- Best practices and centres of excellence.
- Annual rewards for excellent progress or performance.

This process motivates the WSC to perform better by associating good performance with higher levels of support and ongoing assistance from HCWW. Nevertheless, HCWW activities should not be a substitute for regulatory oversight as holding companies' interests are aligned with those of the WSCs.

6.4. SANCTIONS

A mixed picture exists regarding the ability of regulatory actors to apply sanctions such as fining service providers and suspending or removing licenses. Table 11 presents an overview of the Northern African countries where regulatory authorities are mandated to issue fines to service providers and suspend or remove licenses. It highlights that varying progress has been made in developing such sanctions. Regulatory actors in three of the six countries can fine service providers for breaching WSS regulations for aspects related to service provision and in all but one country, regulatory actors can suspend or remove a service provider's license or terminate their contract. Moreover, regulatory actors with the ability to fine service providers or suspend or transfer their license are largely not using this power.

Table 11: Sanctions

Country	Ability to Fine Service Providers	Note	Ability to Suspend / Remove Service Provider License	Note
Algeria	✗	**Ministry of Water Resources** In the context of full public service provision model (combining municipal, state-owned companies and public subsidiary companies), there are no financial sanctions applied.	✓	**Ministry of Water Resources** Although MRE can suspend licenses or sanction service providers for poor performance, these are not applied in a context of natural monopoly.
Egypt	✗	**Egyptian Water Regulatory Authority** Financial sanctions are not applied.	✓	**Egyptian Water Regulatory Authority** The agency is required to notify a company that is performing poorly and request service strengthening. If the company fails to do so, it may be forced to cease operating. However, this is rarely enforced. Several measures can be taken to sanction or penalise the Heads of the WSCs, including suspension or criminal proceedings.
Libya	✗	**Ministry of Water Resources** Financial sanctions are not applied.	✗	**Ministry of Water Resources** In the context of a sector monopoly, licence suspension or removal is not possible.
Mauritania	✓	**The Regulatory Authority; Ministry of Water Supply and Sanitation** Financial sanctions (up to 2% of the turnover or 20 million Ouguiya) can be applied in the case of non-compliance.	✓	**The Regulatory Authority; Ministry of Water Supply and Sanitation** The partial or full contract suspension is the most important sanction they can apply, but this is rarely enforced.
Morocco	✓	**Ministry of Interior; Municipalities** Sanctions are introduced in contracts (delegated, concessionary) but are not fully clear and rarely applied.	✓	**Ministry of Interior; Municipalities** Sanctions are introduced in contracts (delegated, concessionary) but are not fully clear and rarely applied.
Republic of Tunisia	✓	**Ministry of Agriculture, Water Resources and Fisheries; Ministry of Environment** Although fines can be issued, these are very rarely enforced.	✓	**Ministry of Agriculture, Water Resources and Fisheries; Ministry of Environment** Lead ministries have the ability to suspend licences or sanction poor performance, but these are not applied/irrelevant in a context of monopoly.

7

REGULATORY ENVIRONMENT

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REGULATORS ASSOCIATION

7. REGULATORY ENVIRONMENT

The regulator's legitimacy is more related with the regulator's decision-making process in terms of regulatory independence and accountability. The financial independence and economic sustainability of the regulator are a determining factor in its independence and legitimacy. To this end, the regulator must have access to adequate financing for the exercise of its regulatory mandate. Regulatory accountability requires that the regulator be accountable to the Parliament, the Government, regulated entities and to the public. Disclosure of information about the regulatory processes and public reporting of compliance and performance, as well as implementation of participatory models in decision-making processes are characteristics of good governance by regulators.

There are significant pressing challenges in the regulatory environment for WSS regulation across all Northern African countries. Table 12 presents the status of different aspects related to three dimensions of the regulatory environment: (i) autonomy; (ii) participation; (iii) transparency. It highlights very low performance in this area, with several common challenges evident. Of note, regulators are often part of – or closely connected to – a Ministry with responsibilities to oversee the delivery of WSS. Tariff adjustments in almost all countries are carried out by Government directly (generally with consultation and support of national utilities). Given the limited transparency surrounding regulation arrangements and activities, regulatory actors do not generally make reports on WSS performance publicly available. When these are available, they are rarely up to date. To a large extent, this regulatory environment is reflective of the broader political environment, characterised by very limited transparency and citizen participation in decision-making. It is important to note that Egypt and to a lesser extent, Mauritania are outliers in this regard, with up-to-date annual reports publicly available online.

Table 12: Regulatory Environment

Country	Autonomy			Participation	Transparency
	Whether Regulator(s) can Adjust Tariffs without Government Approval	Whether the Regulator(s) are Financially Independent of Government	Regulator's Funding Mechanism	Public Participation in Development and Application of WSS Regulations	Whether Regulatory Reports are Publicly Available
Algeria	✗	✗	Lead sector ministries are in charge of regulating WSS services and are naturally dependent on broader governmental budgeting processes and not autonomous from government.	Procedures for involving users in the application of regulations are not clearly defined in laws and policies and the Water Act only mentions user participation in the context of water resource management. A culture of user participation is not yet established or practiced.	✗
Egypt	✗	✗	Egyptian Water and Sanitation Regulatory Authority (EWRA) is partially independently financed through: Annual allocations from the State General Budget, Service payments from state and private projects in the water and wastewater sectors, Grants, donations, and contributions in line with the objectives of EWRA, Interest and/or profits gained from EWRA's invested funds.	Procedures for involving users in the development and application of regulations are not defined in laws and policies	✗
Libya	✗	✗	The Ministry of Water Resources is the sector regulator and is dependent on larger Government of Libya's budgeting processes	Procedures for involving users in the development and application of regulations are not defined in laws and policies	✗
Mauritania	✗	✓	In theory, the Regulatory Authority (ARE) should source its revenue from a combination of annual tax levies (calculated as a percentage of private operators' turnover) and application fees from private operators. In practice however, with tax levy exemptions for the water sector, ARE relies solely on fees collected from the other sectors it regulates (e.g., telecommunications). ARE has displayed a balanced budget since its creation.	Delegated service providers are required (via the service specifications) to give a central role to water users' associations in service monitoring and financial contributions. The Regulatory Authority also communicates with Water Users' Associations WUA by way of meetings or phone calls when service delivery issues arise.	✓
Morocco	✗	✗	Lead sector ministries are in charge of regulating WSS services and are naturally dependent on broader governmental budgeting processes and not autonomous from government.	Procedures for involving users in the application of regulations are established in the Water Act but largely relate to water resource management. A user participation is not established or practiced.	✗
Republic of Tunisia	✗	✗	Lead sector ministries are in charge of regulating WSS services and are naturally dependent on broader governmental budgeting processes and not autonomous from government.	Procedures for involving users in the development and application of regulations are defined in laws and policies but their level of application is moderate	✗