

How can water and wastewater utilities in Africa help meet the SDGs?



WEBINAR

16 Nov 2021 | 16:00 GMT

iwa-network.org/webinars

IWA SPECIALIST GROUP ON SUSTAINABILITY IN THE WATER SECTOR

The specialist group focuses on **encouraging and supporting sustainable use of water**



SUBCOMMITTEES:

- Sustainable Development Goals
- Professional Development and Training
- Sustainable Use of Water by Industry
- The Digital Worker

<https://iwa-connect.org/group/sustainability-in-the-water-sector/timeline>

Join **2,787** water professionals working across a great variety of different sectors!

AFRICAN WATER ASSOCIATION



The African Water Association (AfWA), a professional association of institutions, companies and operators, established in 1980 and operating in the water, sanitation and environment sector in Africa

The Scientific and Technical Council (STC) of the AfWA,

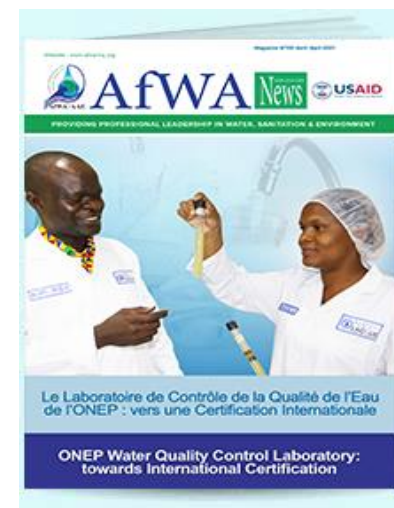
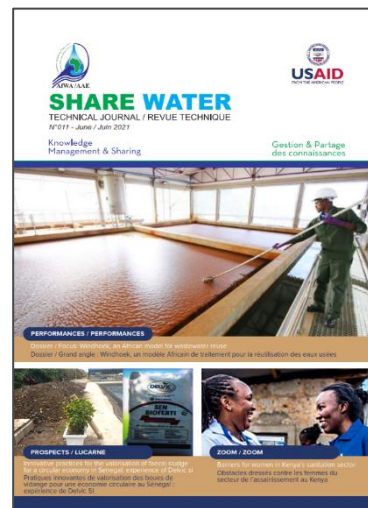
- *the working force of the institution,*
- *identifies the scientific and technical challenges facing the sector in Africa.*
- *Proposes solutions that result in capacity building programs, seminars, masterclasses, technical files, etc.*

Website: www.afwa-hq.org

KSM Platform: www.afwakm.com

The major AfWA programs are

1. *AFRICAP, Operator Capacity Building Program,*
2. *SAO CWIS program*
3. *The AfWA also supports the development of African young water and sanitation professionals,*
4. *The WACE, Wash Alumni Capacity Building Enhancement.*
5. *The African Water and Sanitation Academy (AWASA)*



WEBINAR INFORMATION



- This webinar will be **recorded and made available “on-demand”** on the IWA website.
- Following the webinar, you will be sent a **post-webinar email** with the on-demand recording, presentation slides, and other information.



- **‘Chat’ box**: please use this for general requests and for interactive activities.
- **‘Q&A’ box**: please use this to send questions to the panelists.
(We will answer these during the discussions)

Please Note: Attendees’ microphones are muted. We cannot respond to ‘Raise Hand’.

AGENDA



- Introduction and housekeeping rules
Arlinda Ibrahimllari, UK Consulting and Sylvain Usher, Association Africaine de l'Eau
- Applying the SDGs as a framework for corporate sustainability
Troels Kærsgaard Bjerre, VandCenter Syd
- Can Utilities play a role in achieving SDGs on sanitation?
Dennis Mwanza, RTI International
- Q&A with audience
- There is no us, without us!
Faustina Boachie, Ghana Water Company Ltd.
- The National Office of Electricity and Drinking Water - Citizen enterprise serving Sustainable Development
Brahim Mazih, ONEE-Branche Eau
- Serving the Communities - A case of Nkana Water
Diana Makwaba, NKANA Water
- Q&A with audience
- Wrap up and thank you

ZOOM POLL!

- How well do you know the SDGs?
- To what extent do you find actions supporting the SDG's relevant for you or your company?
- Who should support and pay for the implementation of the goals?

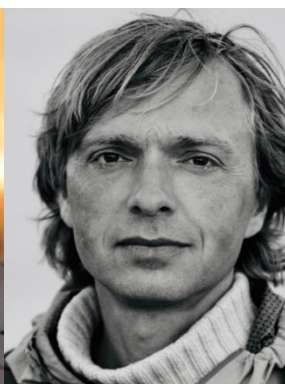
PANELISTS



**Arlinda
Ibrahimllari**
UK
Consulting



**Sylvain
Usher**
Association
Africaine
de l'Eau



**Troels
Kærgaard
Bjerre**
VandCenter
Syd



**Dennis
Mwanza**
Senior
WASH
Advisor, RTI
International



**Faustina
Boachie**
Ghana Water
Company
Ltd.



**Brahim
Mazih**
ONEE-
Branche Eau



**Diana
Makwaba**
NKANA
Water

Applying the SDGs as a framework for corporate sustainability

Troels Kærgaard Bjerre
Project Director





- Water utility in the city of Odense
- One of the largest water utilities in Denmark
 - ✓ Production and distribution of drinking water
 - ✓ Disposal and treatment of wastewater
 - ✓ Storm water management
- A corporate utility company owned by the municipality
- Nonprofit and full cost recovery



ONCE UPON A TIME...



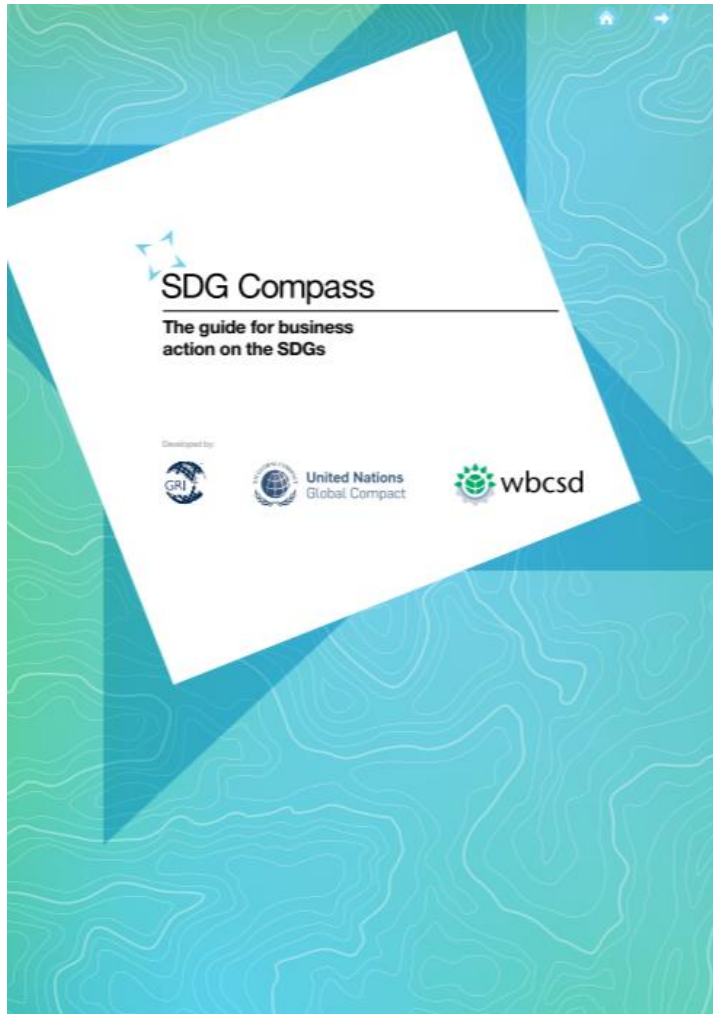
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INITIAL SCREENING IN 2016



USING THE SDG'S AS A FRAMEWORK FOR CORPORATE SUSTAINABILITY



DESIGNING THE PROJECT



- Core business
- Materiality
- Involvement
- Anchoring
- Transparency

OUR SDG ASSESSMENT



- Relevance: To which extent is the target relevant to VCS Denmark's activities?
- Gap: To which extent is there a gap between the target and the state of affairs in the area in which VCS Denmark operates?
- Business opportunity: To which extent would it be a good business opportunity for VCS Denmark to contribute to the reaching of the target?





6 Clean
water and
sanitation

7 Affordable
and clean
energy

9 Industry,
innovation and
infrastructure

12 Responsible
consumption
and production

14 Life below
water

SETTING GOALS



2021

2024

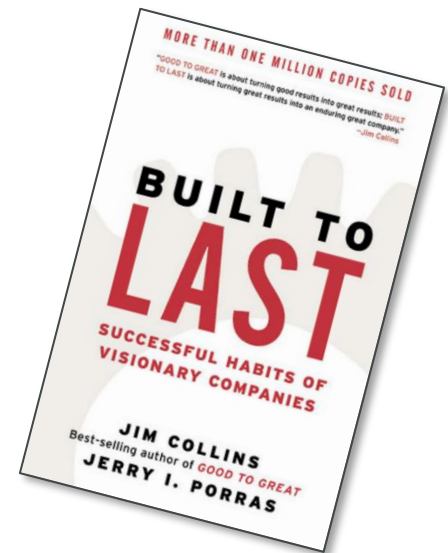
2030

2050

2100



BHAG's





<https://history.nasa.gov/moondec.html>

OUR 5 BHAG'S



- Potable water based on clean groundwater in 2050
- Climate neutral in 2050 (scope 3)
- Future-fit, flexible and sustainable infrastructure in 2050
- The worlds most ressource efficient water utility in 2030
- Satisfactory ecological status in water bodies in 2027



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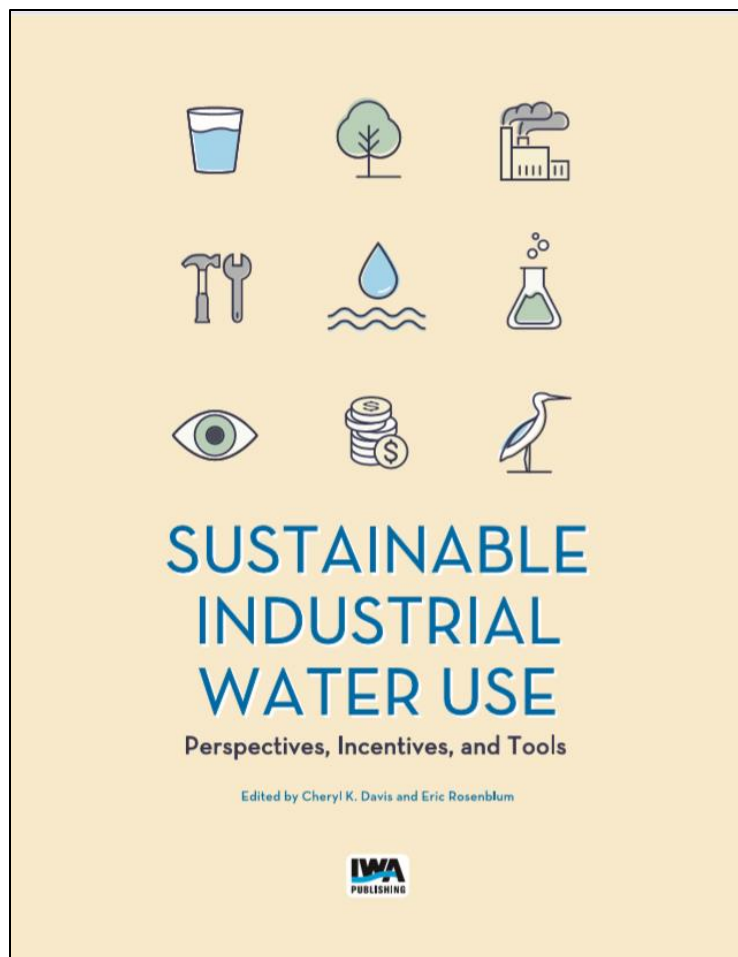
*“Culture eats strategy
for breakfast”*

Quote: Peter Drucker

LEARN MORE



IWA
the international
water association



Chapter 33

Applying the UN sustainable development goals as a framework for corporate sustainability



Troels Kærgaard Bjerre
VCS Denmark, Odense, Denmark

Keywords: BHAG, prioritization, SDG, strategy, sustainability, water utility

33.1 INTRODUCTION

The 17 United Nations (UN) Sustainability Development Goals (SDGs) adopted at the UN Sustainable Development Summit in 2015 provide a comprehensive framework for corporate sustainability across all sectors of enterprises (UN, 2020). This chapter explains how VCS Denmark, a large publicly owned water and wastewater utility, incorporated the SDGs into its strategic business plan in order to implement in practice the sustainability goals. It describes how Denmark became a global leader in sustainability which led to VCS Denmark's adoption of the SDGs, the approach the utility followed to bring the SDGs into its organization, the key issues encountered, and some general thoughts about the need for continued organizational development to achieve water sustainability.

33.2 UN SUSTAINABLE DEVELOPMENT GOALS AND CORPORATE SUSTAINABILITY

While the Sustainable Development Goals (SDGs) were adopted only within the past decade, the UN has explored the concept of sustainability over the course of several decades (Caradonne, 2014). Previous efforts are reflected in a series of international agreements, beginning in 1972 with the Stockholm Declaration and continuing through the Brundtland Commission Report (1983–1987), the Montreal Protocol (1987), and the International Protocol on Climate Change (1988). While these documents focused on the role of governments in protecting the environment, the concept of sustainability was ultimately expanded to include ways in which environmental protection could be harmonized with running a profitable business.

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DOI: 10.2166/9781789060676_0351

<https://iwaponline.com/ebooks/book/814/Sustainable-Industrial-Water-Use-Perspectives>

CAN UTILITIES PLAY A ROLE IN ACHIEVING SDGs on SANITATION

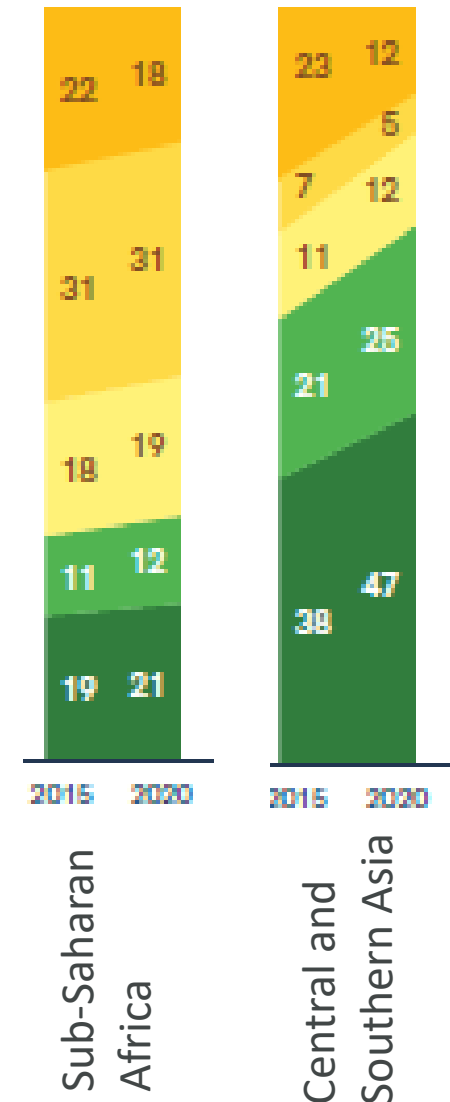
DENNIS DANIEL MWANZA
PANELIST RTI INTERNATIONAL



GLOBAL CHALLENGE



- Reminder: as of 2020 we were still far off reaching the 2030 SDG goals on sanitation
- 3.6 billion people lacked safely managed Sanitation
- At current rate, 0.84 % pts/yr in urban areas NOT ENOUGH – new ways (15x)
- Paradigm shift of looking at sanitation as a utility service



REALITY CHECK ON SANITATION



- Waterborne sewerage systems are rare in Africa
- Less than 15% of Africa's urban population connected to sewer network –not as efficient.
- Non-functional treatment plants i.e. 80% in Ghana
- Some cities have almost zero sewer network – Niamey, most cities in Nigeria, Freetown -Sierra Leone, Monrovia etc
- About 20% of the urban population are on septic tanks
- More than 60% depend on onsite sanitation (Septic tanks or pit latrines)
- Limited treatment capacity – Yaounde – only first treatment plant

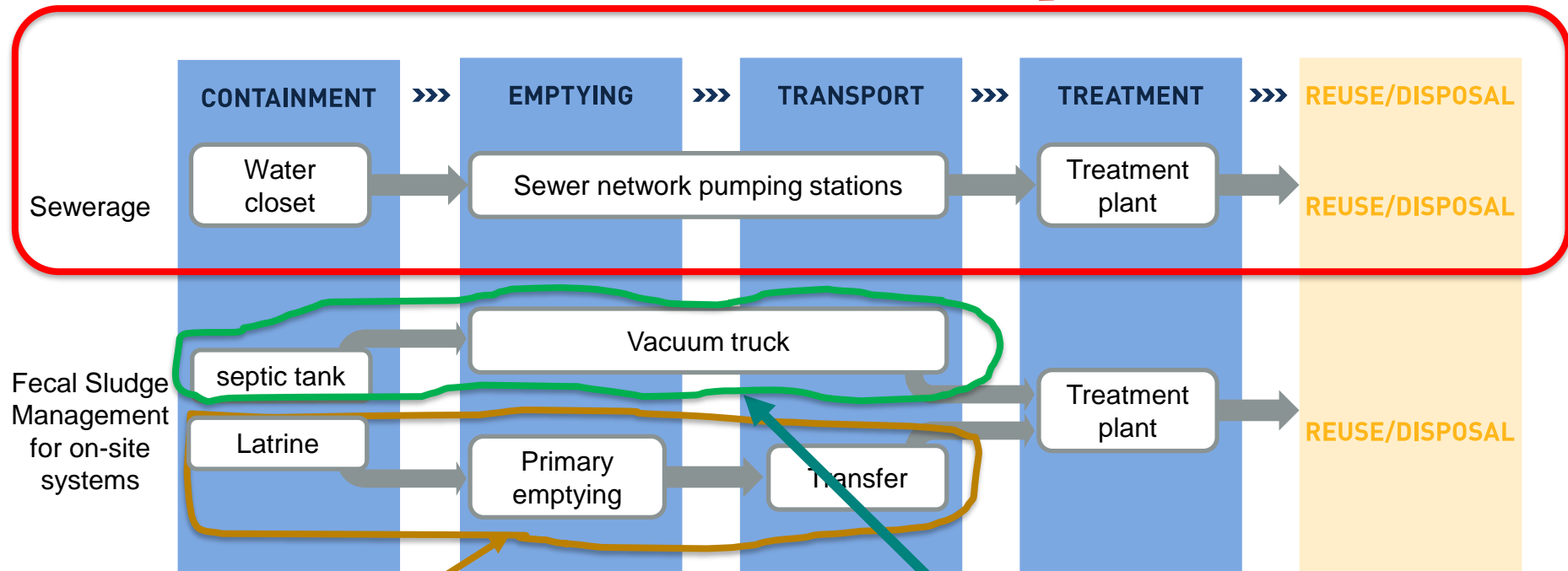
Access to sewer network in the region



City	Population	%Sewer	Septic tanks	Toilets
Nairobi	4.2 Million	18	35	47
Lagos	16 Million	5	20	75
Lilongwe	0.9 Million	10	20	70
Kampala	1.75 Million	7.5	32	60.5
Bamako	2.71 Million	2	35	63
Bangui	0.9 Million	1	20	79
Lusaka	2.5 Million	22	30	48
Durban	3.70 Million	71	19	10

The Sanitation value chain

UTILITIES



Manual pit emptiers, more than 60 of population, unhygienic etc

Driven by the private sector – often unregulated, old dilapidated trucks, no safety

HOW CAN UTILITIES USE CWIS AS DRIVERS TO ACHIEVE SDGS ON SANITATION



- **Responsibility, Accountability and Resources**
- Role of Government is critical. Must define policy, ensure specific Ministry or department to drive policy, financing and institutional framework – accountable for service provision – making sure it happens
- Governments should ensure that there is clarity on who is responsible and ensure that resources are available.
- **Responsibility** – the one that provides the service the whole sanitation value chain (*containment, emptying and transportation and treatment*)

ROLE OF UTILITIES



Sewer system – utilities

Non-sewer system –Utility must play a key role in providing **treatment capacity**, coordinating the private sector in the **emptying and transportation** and working with Municipalities on making sure HH have appropriate type of toilets.

Funding – push for Sanitation levy – Kenya, Zambia etc

Current role of utilities in sanitation

COUNTRIES IN AFRICA



**African Countries –
52-54**

COUNTRIES – WATER AND SANITATION



Countries where the
water utility has a role
to play in Sanitation -
18

COUNTRIES WATER ONLY UTILITIES



**Countries in which a water utility
does not have a role on
sanitation - 36**

ALL COUNTRIES





YES!! THEY CAN

THANK YOU



Q&A Discussion



THERE IS NO US, WITHOUT US!

MRS. FAUSTINA BOACHIE

CHIEF MANAGER LOW-INCOME CUSTOMER SUPPORT DEPARTMENT

GHANA WATER COMPANY LIMITED

GHANA, WEST AFRICA

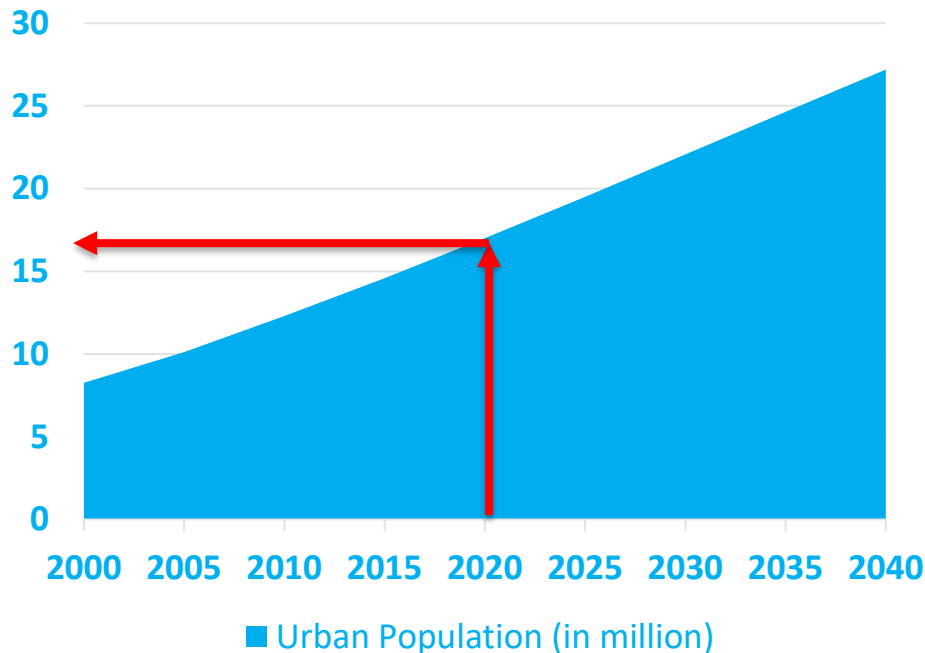


inspiring change



NEED FOR MORE INCLUSIVE SERVICE

- Urban Population: ± 16.6 million
- LIUC Residents: 50% of which
- Only 15%-30% enjoy direct access



IMPACT OF NON-INCLUSIVENESS

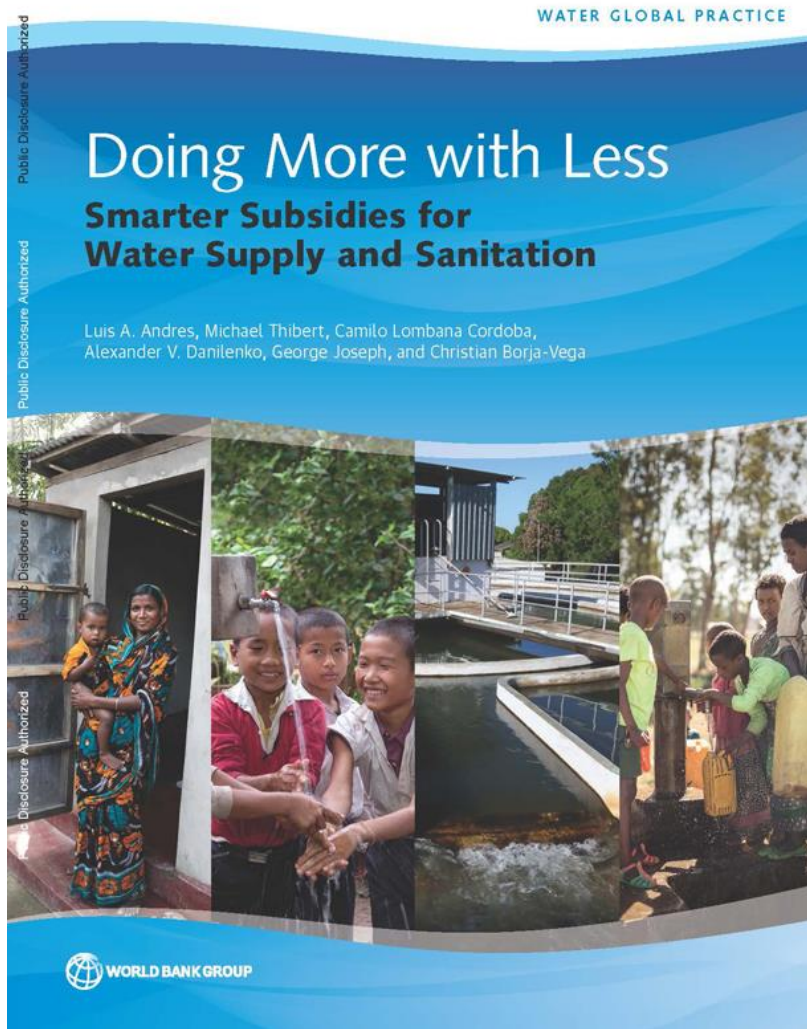


Bucket versus Piped Water

Bucket Water		
Buckets (20 ltr)	GHS / #	0.50
Buckets (20 ltr)	# / d	10
Daily Costs	GHS / day	5.00
Monthly	GHS / month	150 (\$25)
Piped Water		
Average Tariff	GHS / m3	6.13
Usage	l/c/d	50
Consumption	m3 / month	15
Monthly	GHS / month	92 (\$15)
Difference	GHS / month	58 (\$10)

Paying more & getting less!

INEQUALITY OF WASH FUNDING



Operational WASH Subsidies

- **USD 320 billion p.a.**
(excl. China & India)
- **56% to the richest 20%**
(74% in Africa)
- **18% to the poorest 50%**
(7% in Africa)

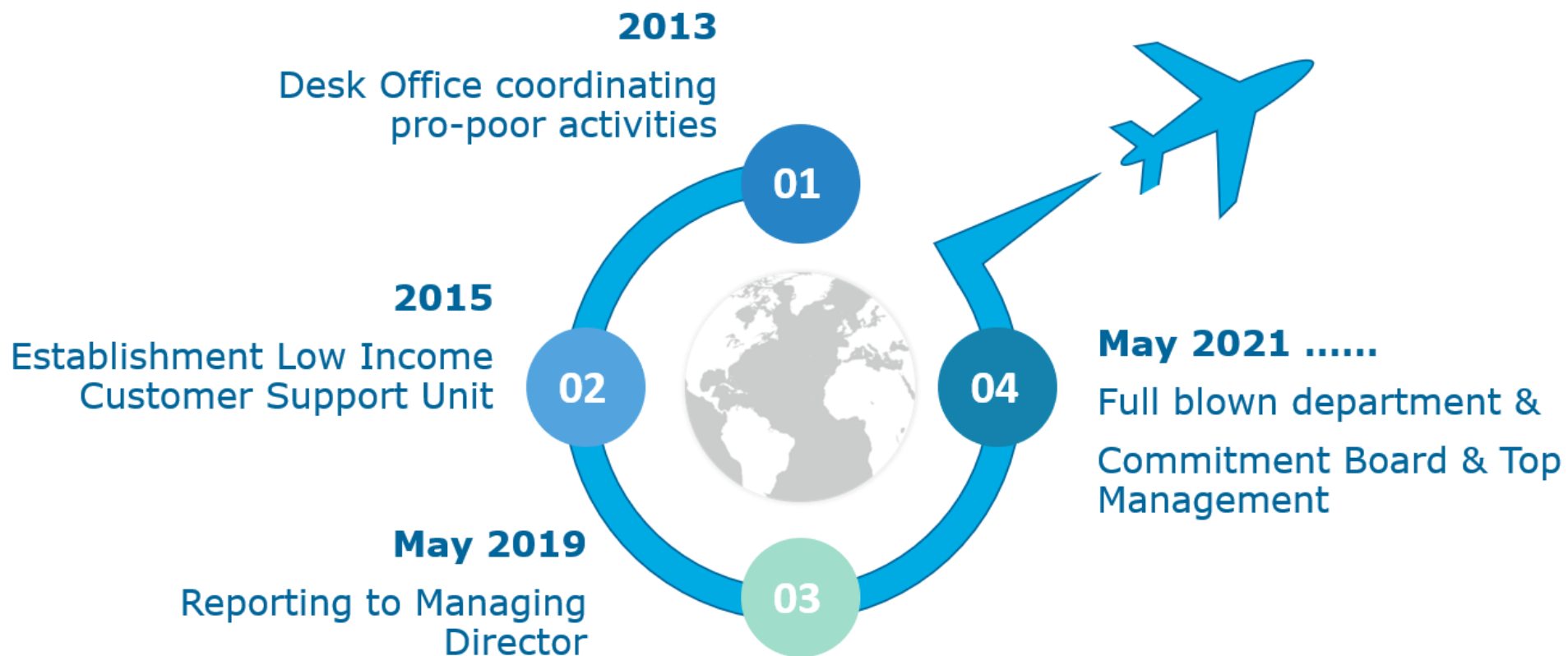
CHARGE THE HAVES AND SUBSIDISE THE HAVE NOTS



- LIUCs want direct access to Ghana Water services but cannot afford the full connection fee
- GWCL mandated to provide water access to all urban residents

→ Introduction of subsidised connections

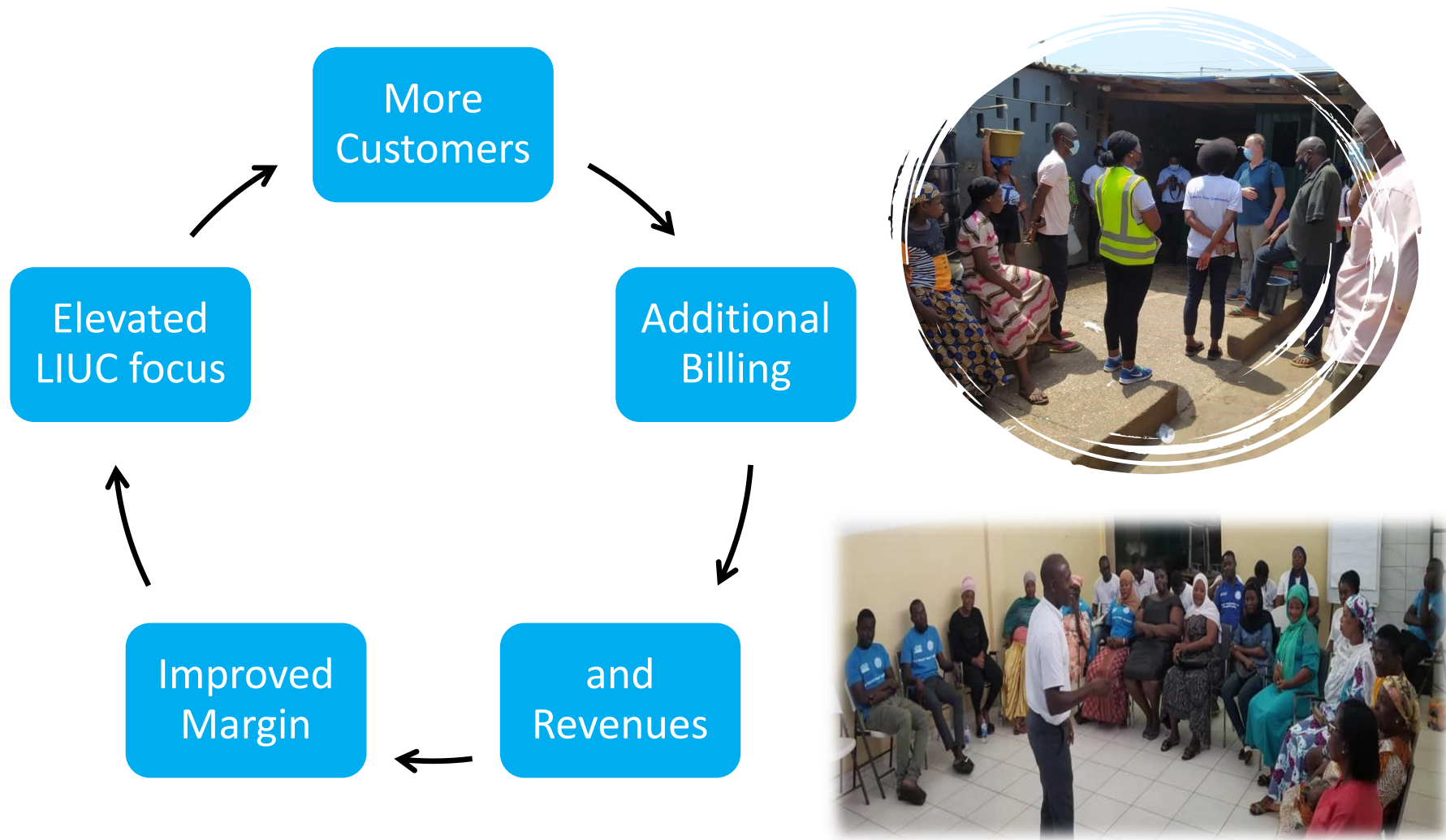
EVOLUTION



LICSU & COMMUNITY ENGAGEMENT



SUSTAINABLE BUSINESS MODEL



المملكة المغربية
Royaume du Maroc

المكتب الوطني للكهرباء و الماء الصالح للشرب

Office National de l'Electricité et de l'Eau Potable

The National Office of Electricity and Drinking Water

Citizen enterprise serving Sustainable Development

BY : **MAZIH BRAHIM**

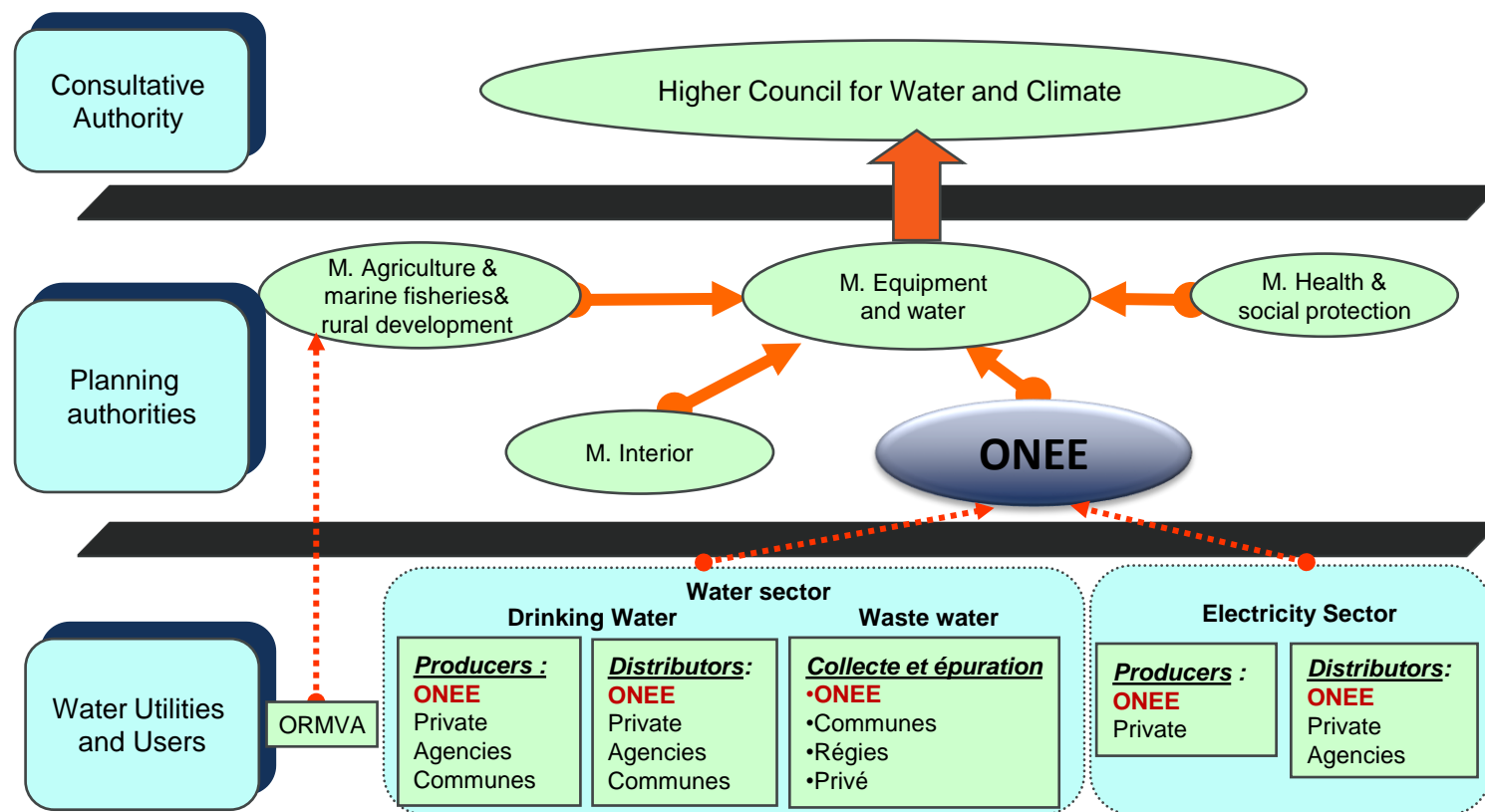
Director of Sanitation and Environment



SUMMARY

- I. Water sector in MOROCCO**
- II. Missions and Strategic axis of ONEE**
- III. Water resources in Morocco**
- IV. Strategies and Actions for Sustainable Development - Clean Water and Sanitation**
 - **Access to drinking water**
 - **Protection of water resources**
 - **Mobilization of unconventional water resources**

WATER SECTOR IN MOROCCO WATER SECTOR ORGANISATION



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MISSIONS - STRATEGIC AXIS

Missions

Planification

Of supplying drinking water
kingdom
investment program (drinking
water and liquid sanitation)

Study and Equipment

Projects of drinking water and
liquid sanitation
Procurement of contracts and
monitoring of the projects
realization

Management for the account of municipalities

For water distribution service
For liquid sanitation service

Quality control

Water produced and
distributed
Water could be used for
drinking water supply

Strategic axis



**Secure and strengthen urban
water supply**



**Generalize access to drinking
water in rural areas**



Performance improvement



**Actively participate in liquid
sanitation**

ONEE KEY FIGURES 2020

Indicator	Unit	End of 2020
Urban		
Equipped flow	m ³ /s	77,4
Production 2020	Millions m ³	1 251
Linear adductions	Km	13 350
Linear distribution networks	Km	60 300
Connection rate	%	97,9
Production yield	%	95,2
Distribution yield	%	75,3
Rural		
Access rate	%	97,8
Beneficiary population	Millions of inhabitants	≈ 12,8
Number of intervention centers	U	483
Sanitation		
Treatment volume of waste water	m ³ /d	450,400
Number of wastewater treatment plants	U	119
Depollution rate	%	77,3
Connection rate	%	89,5



**Global investment 1999-2020
(drinking water & liquid
sanitation)
6,2 Billion EURO**

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WATER RESOURCES IN MOROCCO

Characteristics of water resources

- Worsening of the **unequal distribution** of water resources over time and across the territory
- **Scarcity** of water resources
- Multiplication of **extreme phenomena** (flood & drought)

- Degradation of infrastructure (floods) / under-operation of facilities (droughts)
- Siltation of dam reservoirs
- Exhaustion of tablecloths
- Degradation of the quality of water resources (Pollution by agricultural activities (nitrates), Marine intrusion due to the overexploitation of water tables: ...)

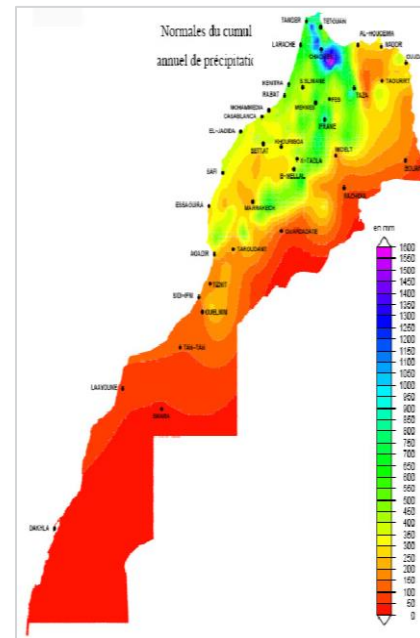
▪ Social impacts:

- ✓ Risks incurred by populations and their property
- ✓ Water shortage: **700 m3 / inhabitant / year** <critical threshold (1,000 m3 / inhabitant / year)
- ✓ Disruption in the continuity of service

▪ Financial impacts:

- ✓ Use of **distant or unconventional resources** and **expensive drinking water processes** (seawater desalination, and demineralization of brackish water and reuse of treated wastewater)
- ✓ Rehabilitation of flood damage
- ✓ Need to speed up the implementation of liquid sanitation projects

Rainfall in Morocco



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STRATEGIES FOR SUSTAINABLE DEVELOPMENT – CLEAN WATER AND SANITATION

NATIONAL STRATÉGIES

- National Water Strategy
- National Water Plan
- National Drinking Water Supply and Irrigation Program -2020-2027
- Master Plan for Integrated Water Resources / Hydraulic Basin
- National Sanitation Program- mutualized



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UNIVERSAL AND EQUITABLE ACCESS TO DRINKING WATER BY 2030

PRODUCTION



Morocco has engaged, since the independence, a dynamic and proactive policy to promote access to water. The country has a **important infrastructure for mobilizing water resources**, thanks in particular to the many **dams** built across the Kingdom.

This policy has enabled the National Office of Electricity and Drinking Water to carry out several **water purification systems**, both those mobilized at the level of the dams and those of the various aquifers of the country.

On the other hand, coastal areas devoid of conventional water resources have been endowed **with seawater desalination** projects.

88 treatment stations
Including 6 desalination stations and 10 demineralization stations

77,4
m³/s

1251 Mm³

Production 2020

Transport pipeline

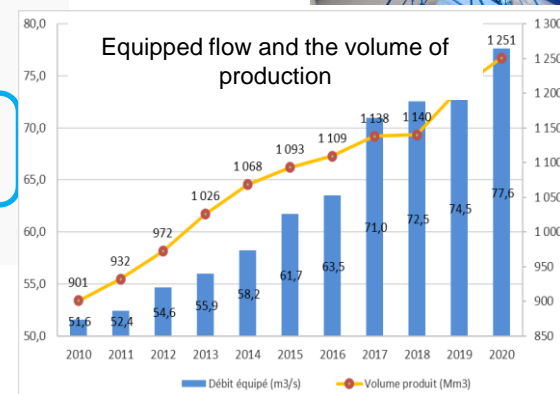
13 350
km

95,2%

Efficiency of transport pipelines



Prioritization of surface water resources and recourse as much as possible to unconventional resources

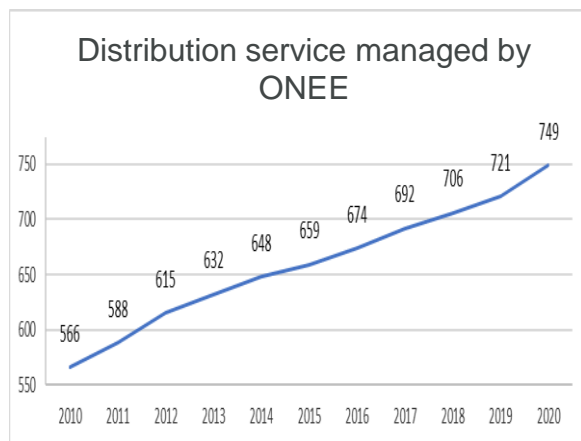




UNIVERSAL AND EQUITABLE ACCESS TO DRINKING WATER BY 2030 URBAN AND RURAL AREAS

Thanks to a dynamic planning process and a significant investment effort, **all urban populations had access to drinking water from the mid-1990s**, despite the years of severe drought that followed in recent decades.

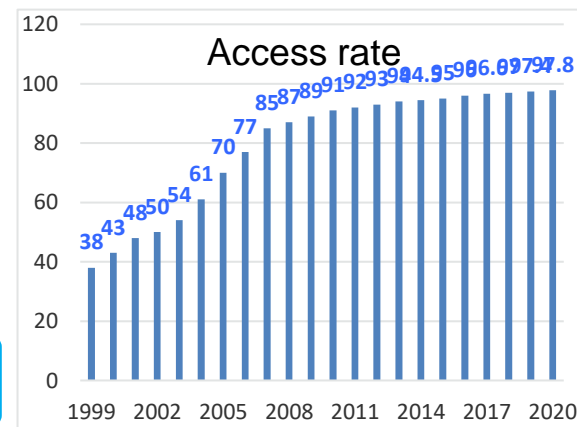
The importance given to rural areas during the last decades has made it possible to increase the rate of access to drinking water in rural areas from **37% in 1998 to 97.8% in 2020**



Distribution service
managed by ONEE in 749
towns & centers

266 urban centres

483 rural centres



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RATIONAL USE OF WATER RESOURCES

Improving the yields of production and distribution facilities to reduce water losses and contribute to the preservation of water resources



- Rehabilitation programs (for adduction and distribution networks)
- Finding and repairing leaks
- Improving hydraulic metering (Large and small caliber)
- Upkeep and maintenance of DWS facilities
- Update of network plans
- Implementation of remote management in adductor systems



ACCESS TO THE LIQUID SANITATION SERVICE & REDUCTION OF WATER POLLUTION

SGD by 2030

Treatment of at least **50%** of wastewater produced;

National targets by 2020

Urban area (260 cities)

Depollution rate : **60%**

Connection rate to the sanitation network: **80%**.

National targets by 2040

Urban area (443 cities)

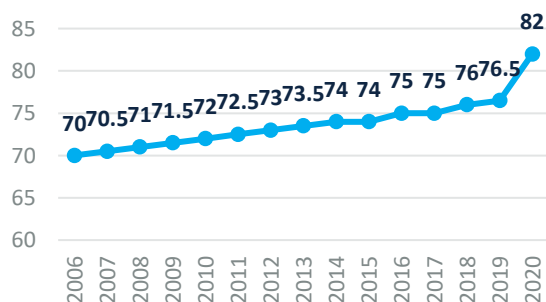
Depollution rate : **80%**; Connection rate to the sanitation network: **95%**

Rural area (1200 cities)

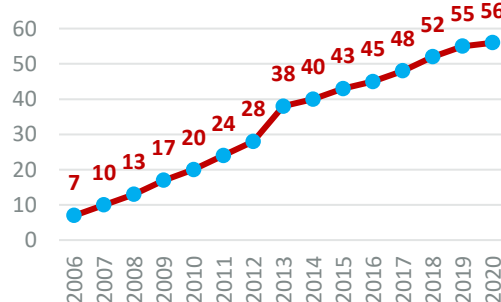
Depollution rate : **60%**; Connection rate to the sanitation network: **80%**

Wastewater reuse: Reuse a volume of **573 Mm3**

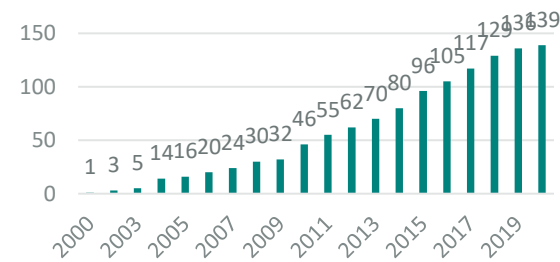
Connection rate



Depollution rate

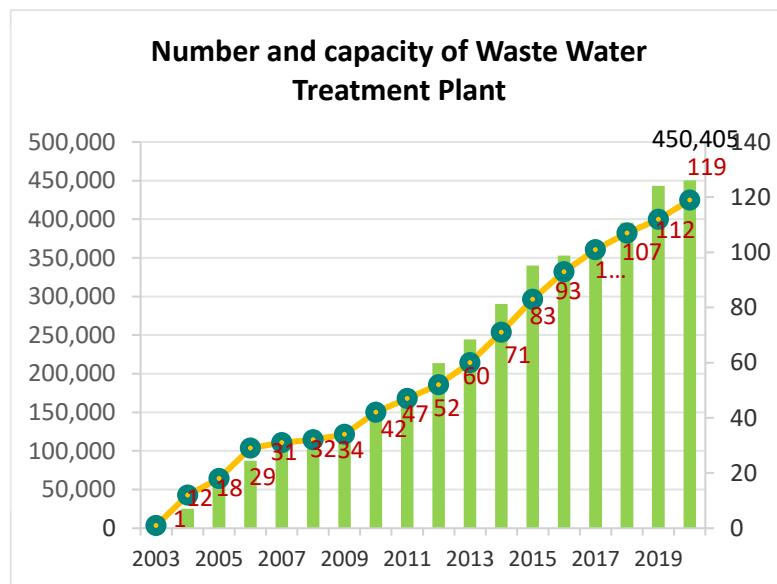


Number of Waste Water Treatment Plant



ACCESS TO THE LIQUID SANITATION SERVICE & REDUCTION OF WATER POLLUTION

ONEE is the leading player in the Liquid Sanitation sector



National connection rate : **82%**
National depollution rate: **56%**

ONEE has greatly contributed to the achievement of these objectives

Connection depollution rate: **89,5%**
Taux de dépollution : **77,3 %**



REDUCTION OF WATER POLLUTION

- **Systematic implementation of Environmental Impact Assessment and Environmental and Social Management Plans for liquid sanitation projects and major drinking water supply projects**
- **Carrying out studies for the protection of water resources:**
 - Conduct of Master Plan studies for the protection of water resources operated by ONEE in collaboration with the Water Basin Agencies
 - Carrying out studies to delimit the protection perimeters of catchments threatened by pollution
- **Carrying out emergency work to protect water resources threatened by domestic and / or industrial wastewater discharges or other types of pollution**
- **Establishment of a central laboratory for water resources quality control and a network of decentralized laboratories**

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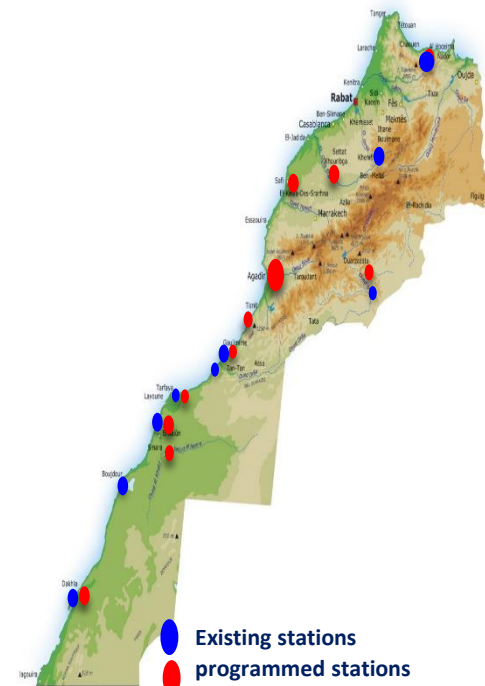
INTEGRATED WATER RESOURCES MANAGEMENT MOBILIZATION OF MOBILIZATION OF UNCONVENTIONAL WATER RESOURCES

1. DESALINATION OF SEAWATER

- Coping with the growing needs for drinking water and water stress

- Use of unconventional resources, as much as possible (desalination, demineralization, etc.)

- Current situation: ONEE supplies around ten localities with drinking water from seawater desalination for a capacity of **155.000 m³/d** \approx **2%** of ONEE's 2020 production capacity ,
- Projects underway by ONEE: a capacity of around **192.000 m³/d**, particularly in Lâayoune (26,000 m³/d), Tarfaya (8,640 m³/d), Agadir (150,000 m³/d) ...
- ONEE plans the extension and construction of new plants with a capacity of **610.000 m³/d** (beyond 2025)



INTEGRATED WATER RESOURCES MANAGEMENT MOBILIZATION OF MOBILIZATION OF UNCONVENTIONAL WATER RESOURCES

2. WASTEWATER REUSE

- The reuse of treated wastewater offers an alternative resource for agriculture, industry and watering golf courses and green spaces



ONEE achievements:

- In the field of watering golf courses and green spaces: 2 projects carried out for a capacity of 14.400 m³/d (Golf de Bahia Beach Bouznika, Royal Golf Dar Essalam in Rabat) and a project underway for a capacity of 7000 m³/d for watering the Golf Atalayoune Nador)
- In the industrial sector: 3 operational projects with the OCP for a capacity of 32.200 m³/d (Khouribga, Ben Guerir and Youssoufia)



**THANK YOU FOR YOUR
KIND ATTENTION**





Diana N. Makwaba
Managing Director

**Nkana Water Supply &
Sanitation Company
ZAMBIA**

16 Nov. 2021

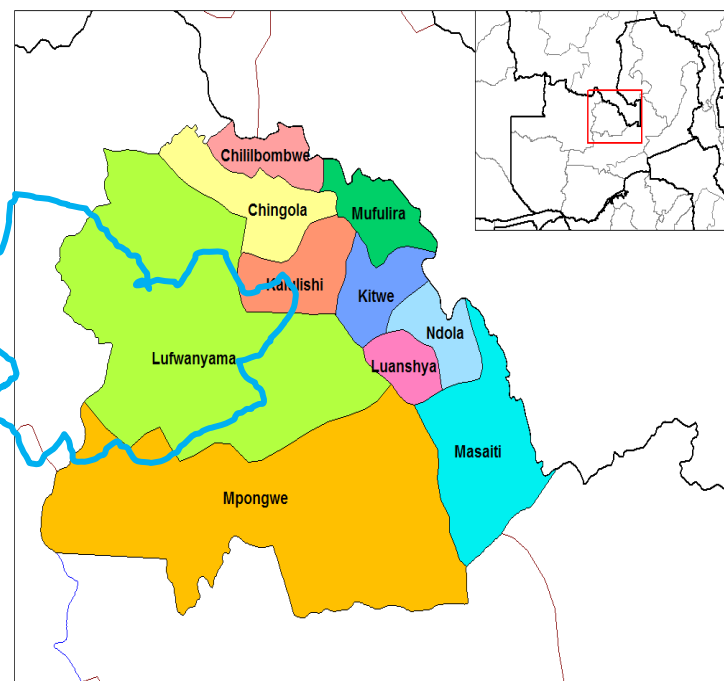


Outline of Presentation

1. Nkana Water in brief
2. Utilities Mandate
3. Major Challenges
4. Interventions in mitigating the challenges

- ❑ Incorporated in 1998 under the Companies Act pursuant to WSS Act No. 28 of 1997 and begun operations in July 2000
- ❑ Wholly owned by Kitwe and Kalulushi Local Authorities (KCC - 70% and KMC - 30%)
- ❑ Operates in **three** towns namely **Kitwe, Kalulushi, Chambishi** and **Lufwanyama** on the Copperbelt
- ❑ Has **70,395** customers
- ❑ Water coverage – **98%**
- ❑ Sanitation coverage – **80%**
- ❑ Metering Coverage – **92%**
- ❑ Constancy of Supply – **17hrs/d**
- ❑ Produces **180,000m³/d** of water
- ❑ Treats **65,000m³/d** of sewage

Nkana Water in brief



WHO WE ARE

The core functions of Nkama Water Supply and sanitation Company Ltd (NWSC)



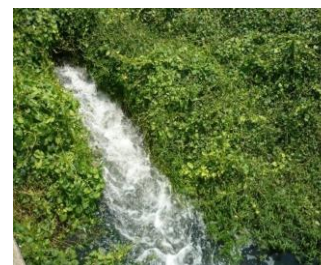
- ⇒ Abstract water from various water sources, treat the water to meet ZABS specifications for drinking water



- ⇒ Deliver treated water to domestic, industries, commercial areas and LICs



- ⇒ Collect and treat waste water by stabilising all pollutants to ZEMA standards before releasing the effluent to the environment. Onsite sanitation in LICs





UTILITY MANDATE UNDER THE WATER SUPPLY AND SANITATION ACT

The Zambian Government in the early 1990s effected a widescale reformation of the water sector which culminated in the passing of the Water Supply and Sanitation Act No 28 of 1997 which provides for the establishment of Commercial Utilities such as Nkana Water Supply and Sanitation Company by participating Local Authorities.

- ☐ The Act defines **Sanitation service** as the disposal of on site or off site of human excreta; the collection of sewage excluding untreated toxic waste and stormwater from all residential, commercial and industrial sources
- ☐ NWSC is therefore mandated to provide water supply and sanitation services to customers within its service area

MAJOR CHALLENGES IN SERVICE PROVISION

1

Old water pipe network
inadequate to meet increased
demand



2

New Development areas coming
up including LICs and the
challenge of extending service
to these areas



Old dilapidated leaking water
pipes

MAJOR CHALLENGES IN SERVICE PROVISION

3

High NRW resulting from physical and commercial losses

4

Vandalism of infrastructure installations and illegal connections affecting revenue generation

5

Poor payment culture leading to High Customer Arrears

17-NOV-21

MAJOR CHALLENGES IN SERVICE PROVISION

6

High turnover of professional staff/Competitive labour market for qualified staff

7

Pollution of raw water sources

8

Effect of COVID-19 on service provision – increased costs vs reduced revenues

9

Infrastructure Investment in LICs relies heavily on donor funding, as the CU s financial capabilities are limited

17-NOV-21



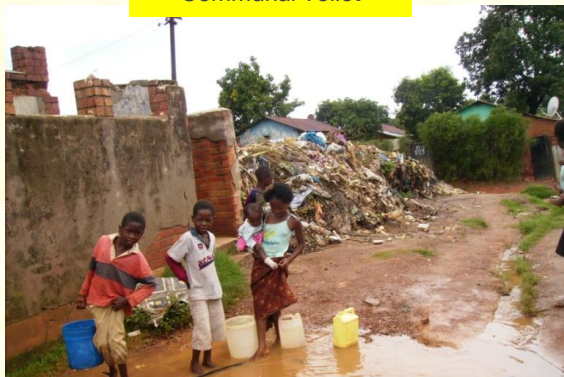
MAJOR PROJECTS UNDERTAKEN CONTRIBUTING TO SDGS 1, 3, 4, 5 & 6



SOME PROJECTS UNDERTAKEN TO SERVE THE LICS

Constructed 1,448 water borne toilets in Wusakili with the help of MCM Ltd at a cost of US\$5m in 2010

Communal Toilet



SITUATION BEFORE

Individual waterborne Toilet

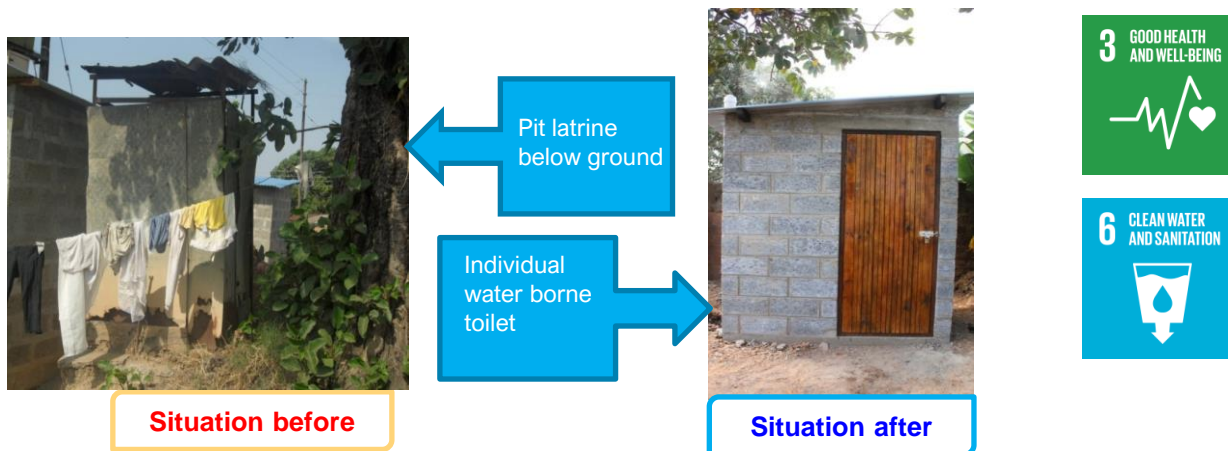


SITUATION AFTER



NWSSP I - Kitwe Sanitation Works

- **2,400 waterborne toilets** built and sewer network constructed in Buchi/Kamitondo under the NWSSP I funded by AfDB which involved the rehabilitation of water and sewerage installations in Kitwe, Kalulushi and Chambishi from 2010 to 2014



NWSSP I: Kalulushi – Mwambashi Dam



Independent raw water source for Kalulushi at Mwambashi Dam

- Before the new water source Kalulushi was entirely supplied from Kitwe
- Installed raw water pumps and rehabilitated the WTP



NWSSP I: Expansion of NEWTP



New High Lift Pumps,
Motors and piping installed

New Water Treatment Plant of
32,000m³/d built



3 GOOD HEALTH
AND WELL-BEING



6 CLEAN WATER
AND SANITATION



WHAT WE ARE DOING TO CONTRIBUTE TO SDGS

Extension of decent sanitation services to LICs – leading to improved standard of living and good health

- Construction of Ventilated Improved Pit (VIP) Toilets in Low Income Areas commenced in 2014 under Phase 1 of the NWSSP. A total of **1,665 toilets** were constructed
- Under phase II of the NWSSP, a total of **3,100 VIP toilets** are planned in 5 project areas
- Under the Waterworx project, an additional number of **820 VIP toilets** are planned in another area.



Situation before



Situation after

WHAT WE ARE DOING TO CONTRIBUTE TO SDGS

Extension of water supply to the LICs - leading to improved standard of living and good health

- Under phase II of the NWSSP, a total of **1,100 water supply service connections** have been planned in one township.
- Under the Waterworx project a total **2,356 water connections** have been planned in two LIC townships.



Installed standpipe with tap



Installed prepaid water meter



ENGAGING WOMEN IN CONSTRUCTION WORKS

- ❑ NWSC has ongoing projects for the provision of decent sanitation services to residents in the low-income communities of Kitwe, Kalulushi and Chambishi. Most LIC areas have no sewer lines running through them, thus construction of Ventilated Improved Pit toilets provides a good alternative in these areas
- ❑ In these sanitation projects, women in the project area are engaged in the making of sanitation platforms that are used in the construction of VIP toilets
- ❑ The women are trained in the skill of sanitation platform production and are paid for making of sanitation platforms



Women making a sanitation platform



WHAT WE ARE DOING TO CONTRIBUTE TO SDGS

- Construction of VIP toilets involves engagement of project area artisans to do the actual construction works, and engagement of the local women to construct the sanitation platforms used in the VIP toilet construction.
- Livelihoods in the project area households are therefore improved through payments for labour engaged.



Men constructing a VIP facility



ADOLESCENT MENSTRUAL HEALTH MANAGEMENT TRAINING

- Project implementation social components also include engaging adolescent girls in project areas, teaching them on Menstrual Health Management (MHM), as well as training them on production of reusable sanitary wear.
- Adolescent girls are recruited in schools, churches, orphanages and NGOs working with adolescents. These are brought in for intensive workshops in which the topic of menstrual health, including the myths, taboos and fears are discussed in detail, before the actual production of reusable sanitary wear commences.
- It is expected that the trained girls would go out and share knowledge with other girls in the community. Once the sanitary pads are made, they are distributed among participant girls and other adolescent girls within the community.



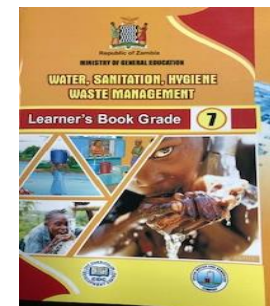
Adolescent girls training workshops in MHM





Localised Curriculum & Learner's Engagement

- ➡ Under WASH Component of the NWSSPII, there were books developed by NWSC working with many other stakeholders such as the District Education Boards and the Curriculum Development Center (CDC).
- ➡ The learners' materials are to be used by learners from grade 1 to Grade 12. These books that will teach pupils on Water, Sanitation, Hygiene and Solid Waste Management, were created on the basis that children should be taught from a young age on issues to do with water and sanitation, so that they grow with the knowledge.
- ➡ The books were given final approval for printing by the CDC, after which over 2,143 copies were printed for distribution to schools in Kitwe and Kalulushi districts of the Copperbelt province.
- ➡ Launch and hand over of the books yet to be done



Faecal Sludge and Solid Waste Management

- ➡ Involves the collection of faecal sludge from the constructed VIP toilets in project areas, once they fill up, at a fee.
- ➡ Community Based Enterprises (CBEs) formed and these groups are carrying out this task on behalf of NWSC.
- ➡ In addition, these CBEs will collect solid waste at a fee.
- ➡ NWSC procured rickshaws and other equipment, which the CBEs will use on a pay back mechanism.
- ➡ So far 5 CBEs fully registered and licensed to operate



Desludging in Ipusukilo



Rickshaw for faecal sludge transportation



OTHER ACTIVITIES

PUBLIC SANITATION

- Under phase I of the WASHE component of the NWSSP, 20 public sanitation facilities were constructed in various health centers, schools and public markets
- Under this WASHE subcomponent, construction of 20 public toilet facilities in selected health centers, schools and markets is planned. The 20 public sanitation sites were selected in collaboration with Ministry of health, Ministry of Education and the City Council. The process of engagement of contractors is almost complete and works will commence once this is done.
- In addition, 5 health centers in Kitwe and Kalulushi districts that had run down incinerators, had incinerators constructed under the WASHE component. These were completed in the year 2020 and handed over.





OUR FUTURE OUTLOOK

**To have a collective
action towards
sustainable sanitation
and hygiene services
for all our customers
in all our service areas**





***THANK YOU
FOR YOUR
ATTENTION***

Q&A Discussion



Arlinda Ibrahimllari
UK Consulting
arlinda.ibrahimllari@gmail.com



Sylvain Usher
Association Africaine de l'Eau
susher@afwa-hq.org

Climate Smart Utilities

Tools for adaptation under uncertainty



WEBINAR

29 November 2021 | 15:00 GMT

iwa-network.org/webinars

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Traditional and molecular indicators to characterise sewage in wastewater-based epidemiology



WEBINAR

3 December 2021 | 14:00 GMT

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<https://iwa-network.org/learn/traditional-and-molecular-indicators-to-characterise-sewage-in-wastewater-based-epidemiology/>



Intensifying biological treatment through selection processes



WEBINAR

14 December 2021 | 14:00 GMT

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