



A Legacy of Improving Health and Wealth of Ugandans



**NATIONAL WATER AND
SEWERAGE CORPORATION**

**GOLDEN
JUBILEE**

A Legacy of Improving Health and
Wealth of Ugandans



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Abbreviations

ADB	French Development Agency	ICPAU	Institute of Certified Public Accountants of Uganda	OAU	Sewerage Corporation Organisation of African Unity
AfDB	African Development Bank	ICT	Informatoin and Communications Technology	OSUL	ONDEO Services Uganda Limited
AfWA	Africa Water Association	IDA	International Development Agency	PE	Public Enterprise
ARISE	Area Results Service Delivery Enhancement	IDAMC	Internally Delegated Area Management Contracts	PERD	Pubic Enterprise Reform
APCs	Area Performance Contracts	IPO	Initial Public Offering	PIPs	Performance Improvement Programmes
ATWATSAN	Alternative Approaches and Tools for Improved Water and Sanitation	IREC	International Resource Centre	PPF	Project Preparation Facility
AWASA	African Water and Sanitation Academy	ISO	International Organisation for Standardisation	PS	Permanent Secretary
AWF	African Water Facililty	IWA	International Water Association	PSPs	Public Stand Pipes
B.O.D.	Biochemical Oxygen Demand	KCC	Kampala City Council	PWD	Public Works Department
BUBU	Buy Uganda Build Uganda	KDWB	Kampala District and Water Board	QMS	Quality Management System
CAP	Code of Administrative Procedure	KfW	Kreditanstalt fur Wiederaufbau	Rtd.	Retired
CEO	Chief Executive Officer	KRIP	Kampala Revenue Improvement Programme	Rt.Hon	Right Honourable
CID	Criminal Investigation Department	KWSSA	Kampala Water and Sewerage Services Area	SCAP	100% Service Coverage Acceleration Project
COSASE	Committee of Commissions, Statutory Authorities and State Enterprises Agencies	LVP	Lake Victoria Protection Project	SDGs	Sustainable Development Goals
CSR	Corporate Social Responsibility	LWATSAN	Lake Victoria Water and Sanitation	SEREP	Service and Revenue Enhancement Programme
DANIDA	Danish International Development Agency	MBO	Management Buy Out	SWAS	School Water and Sanitation Clubs
DIT	Directorate of Industrial Training	MD	Managing Director	UBRA	Uganda Benefits Retirement Authority
EEC	European Economic Community	MIS	Management Information System	UfW	Unaccounted for Water
EIB	European Investment Bank	MoES	Ministry of Education and Sports	UGX	Uganda Shillings
ESU	External Services Unit	MTO	Medical Treatment Order	UIA	Uganda Investment Authority
EU	European Union	MPs	Members of Parliament	UNBS	Uganda National Bureau of Standards
FC	Football Club	MWE	Ministry of Water and Environment	UPK	Uganda Polytechnic Kyambogo
FY	Financial Year	NEMA	National Environment and Management Authority	UPPU	Urban Pro Poor Unit
GIS	Geographic Information Systems	NDP	National Development Plan	URA	Uganda Revenue Authority
GIZ	Deutsche Gesellschaft fur Internationale Zusammenarbeit (German Development Agency)	NFA	National Forestry Authority	UWEK	Uganda Water and Environment week
GOU	Government of Uganda	NRM	National Resistance Movement	WACOCO	Water Community Communication Clubs
GPOBA	Global Output Based Aid Project	NRW	Non-Revenue Water	WALOPU	Water Loss Protection Unit
GTZ	German Technical Cooperation	NSSF	National Social Security Fund	WB	World Bank
HFB	Housing Finance Bank	NWSC	National Water and	WHO	World Health Organization
				WQD	Water Quality Department
				WSSP	Water Supply Sanitation Programme
				ZPCs	Zonal Performance Contracts



Acknowledgements



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Design & Layout: Charles Kintu

Photography: NWSC and DS Archives, Kasozi-Kaya Family, Openyto Family, Ministry of Water and Environment, Uganda Broadcasting Corporation, Jon Fisher Sekabira, Allan Mwesiga, Hans Ruyonga

Illustrations & Infographics: Mwajab Namirembe, Allan Mwesiga, Hans Ruyonga

Background Information: NWSC Reports, Utility Benchmarking and Regulation in Developing Countries by Silver Mugisha, Making Public Enterprises Work by William T. Muhairwe

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FOREWORD

H.E. the President of Uganda

I wish to congratulate National Water and Sewerage Corporation (NWSC) as it marks 50 years of unrivalled service delivery to the people of Uganda. The Corporation has become a model utility in the world. The 1970s to mid-1980s are referred to as 'Wasted Decades.' This deterred growth and resulted into socio-economic decline.

When the NRM Government took over power in 1986, Government embarked on a series of economic reforms with focus on economic recovery and expansion. Great efforts were devoted to eliminating the resource deficiencies and weaknesses in the delivery of basic services, which represented critical constraints to development.

Particularly, national policy was refocused on three key approaches: Decentralization, Privatization and Poverty alleviation. These reforms opened opportunities to competitive private service providers in the Water Sector, fostered innovation and improved service delivery. NWSC subsequently transformed from a loss-making organization to a financially viable utility. The Corporation's geographical coverage expanded to all Regions of the country and access to safe water service coverage grew from 40% to 80% in the urban sector.

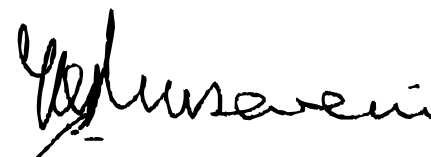
I appreciate the efforts of NWSC and all other key partners in the Water Sector for their commitment towards realizing the

Government's goal of 100% Water Service Coverage. Uganda is set to attain its goal of middle income status by 2040.

Whereas great improvements have been registered in the Water Sector, access to improved sanitation remains low (40%) and environmental degradation a major challenge. If these are not attended to, coupled with the worsening effects of climate change, they will have dire implications on the quality of life and economic growth.

I, therefore, urge all Ugandans to continue supporting Government efforts towards self-reliance, economic growth and development.

For God and my Country




Y. K. Museveni

President of the Republic of Uganda





MESSAGE FROM Minister of Water and Environment



It is with great pleasure that I and the Ministry of Water and Environment congratulate His Excellency the President of the Republic of Uganda, Gen. Yoweri Kaguta Museveni as the National Water and Sewerage Corporation celebrates 50 years. I thank His Excellency, for his foresighted leadership at the helm of the NRM Government, which has demonstrated its commitment to continuous improvement in delivery of basic services to the people of Uganda.

I acknowledge the efforts of the Board, Management and Staff of NWSC who have ensured continuous improvements in the provision of water and sewerage services over the past five decades. In 1995, the Government enacted the NWSC Act (CAP 317), revolutionizing NWSC's mandate to provide water and sewerage services in Areas entrusted to it on a commercially and financially viable basis. The aim was to improve the operational and financial standing of the NWSC in order to reduce its commercial risks and attract competitive lease bids when privatized. This step was reinforced by the introduction of the 1997 Water Act and 1999 National Water Policy, which strengthened the regulatory framework for all sector players and heightened scrutiny of the sector's performance.

Before these landmark policy reforms, water and sewerage services were in crisis, intermittent water supply was the order of the day, there were constant system breakdowns, water quality was poor and investments were low. Two decades later, the water services in the urban water sector have dramatically changed. Water supply hours have tripled with several areas having 24/7

supply, water quality is compliant with national standards and international guidelines, and service coverage has doubled. This is a testament to the tireless efforts of the Government, NWSC and all stakeholders who have played various roles to enable the Organization realize its mandate.

Our goal is to ensure that every Ugandan has access to safe water and sanitation by 2040. In this regard, we have set out a number of initiatives in the National Development Plan (NDP III) and Government Manifesto, which are intended to enable us accomplish this. As we celebrate this 50th anniversary, the Government is fully committed to ensure continuity of this legacy, providing access to safe water and sanitation for all, and restoring a healthier planet.

For God and My Country.



Hon. Sam Cheptoris Mangusho
Minister of Water and Environment

Water Ministers 1962 - 2022



JW Lwamafa
1962-1964



Balaki Kirya
1964-1965



Max L. Choudry
1966-1971 ; 1981-1985



Erinayo Wilson Oryema
1971-1974



Juma Oris
1977-1979



Tarsis Kabwegyere
1979-1980



Peter H. Omara Ojunga
1985-1986



Chango Macho
1986



Robert Kitariko
1986



Gerald Ssendaula
1996-1998



Henry Muganwa Kajura
1998-2000



Ruhakana Rugunda
2000-2003



Kahinda Otafiire
2003-2006



Maria Mutagamba
2006-2012




Ephraim Kamuntu
2012-2015



Sam Cheptoris
2016 - to date

MESSAGE FROM Board Chairperson



As National Water and Sewerage Corporation (NWSC) celebrates 50 years of service, I congratulate you all on reaching this milestone. NWSC has indeed come of age, and we have a number of milestones to be grateful for, as well as many lessons that can guide us in the present and future.

NWSC's journey over the past 50 years is a mirror of Uganda's journey. The Corporation has evolved from a struggling institution to a thriving organisation, and has become a beacon of hope to many utilities around the world. This success is a testament of the persistent efforts of all our stakeholders that have continuously supported the Corporation's endeavours to improve service delivery, and accelerated service coverage.

However, our ambitions do not stop here. Our focus is 100% safe water service coverage in all urban centres through accelerated infrastructure expansions and enhanced staff productivity, while keeping the organisation afloat and conserving the environment. Every village should have a safe water point serving at least 200 people.

On behalf of the Board of Directors, I appreciate the Management and staff both past and present for their commitment over the years in the implementation of the Corporation's strategic focus and national aspirations to enhance service delivery for all. Your dedication has paid off.

In a special way, I thank the Government under the leadership of His Excellency President Yoweri Kaguta Museveni for the tremendous support to the Corporation over the years. The reforms that were implemented created an enabling environment that fostered the transformation and growth of NWSC.

I also extend my appreciation to the development partners that offered their support to the Corporation over the years and are still supporting us.

Finally yet importantly, we are always indebted to our esteemed customers for their support and partnership. Thank you for fulfilling your obligation over the years.

On behalf of the Board, I pledge our support to the Management and Staff of NWSC in fulfilling the mandate of the Corporation and taking it to greater heights as we embark on the next 50 years.

For God and My Country





*Board Members on a technical
tour in Central Region.*



Board of Directors



Eng. Dr. Badru .M. Kiggundu
BOARD CHAIRPERSON



Dr. Eng. Silver Mugisha
MANAGING DIRECTOR



**Rtd. Col. Hon. Stephen
Mwesige Basaliza**
BOARD MEMBER



Sarah Onyiru
BOARD MEMBER



George M. Runge
BOARD MEMBER



Canon Josephine Kasya
BOARD MEMBER



Rt. Hon. Daniel Kidega
BOARD MEMBER



Rachel C. Mbabazi
BOARD MEMBER



Eng. Joseph O. Eyatu
BOARD MEMBER



Edith Kateete
CORPORATION SECRETARY

Former Boards of Directors



A session of the Board of Directors of the Kampala and District Water Board in 1968. Centre is chairman Serwano W. Kulubya; fourth right is MD Eng. Christopher Kasozi-Kaya; third left is Mrs. Eva Mulira

1992/1997. Hon. E.A Oryang (Chairman), Eng. H.O. Onok (Managing Director), Hon. Dr. P. Byaruhanga, A. Okech, Oode Obella (rep. PS/Secretary to the Treasury, Ministry of Finance and Economic Planning), Eng. V.Z. Gashaija (rep. Ministry of Health), M. Emaru (rep. Ministry of Natural Resources), M. Odwedo (rep. Ministry of Local Government), A. Manoti (Corporation Secretary)

1998/2000. Sam Labeja Okec (Chairman), Dr. William Tsimwa Muhairwe (MD), Eng Francisco Openyto, Eng. Patrick Kahangire, Lawrence Bategeka, Dr. Abdullai Shire, Dr. Aryamanya Mugisha Henry, Dr. Joseph Kyabaggu, David Ssebabi (Ex – officio) and David Kakuba (Corporation Secretary)

2001/2002 – July 2005. Sam Labeja Okec (Chairman), Eng. Yorokamu Katweiremu (Vice Chairman), Dr. William Tsimwa Muhairwe (MD), Dr. Zainab Akol, Mrs. Sarah. Nabachwa Mangali, Dr. Abdullai Shire, Mr. Gabriel Opio, Stephen Kabuye, Eng. Sortie Bomukama, David Ssebabi (Ex-officio) and David Kakuba (Corporation Secretary)

2004/2005 – 2007/2008. Ganyana Miiro (Chairman), Dr. Elizabeth Madraa (Vice Chairperson). Dr. William T. Muhairwe (MD), Gabriel Opio, David Ssebabi, Stephen Kabuye, Christine K. Nandyose, Eng. Sortie Bomukama. Eng. Yorukamu Katweiremu, Victor Kobel (from 2006/2007), James Ssegane (ex-officio up to Feb 2007), Florence Namayanja Mukasa (ex-officio from March 2007) and David Kakuba (Corporation Secretary)



The 2013-2018 Board, led by Eng. Dr. Christopher Ebal (sixth from left) with Minister of Water and Environment, Prof. Kamuntu (fourth from right)

2007/2008 – August 2012. Christine K. Nandyose (Chairperson), Ganyana Miiro (Vice Chairman), Dr. William T. Muhairwe (MD, 2007 – Aug 2011), Eng. Alex Gisagara (Ag. MD Nov 2011 – Aug 2013), Dr. Charles Wana-Etyem, Victor Kobel, David Ssebabi, Eng. Sortie Bomukama, Florence Namayanja Mukasa (ex-officio from March 2007), David Kakuba, Daniel Kyambadde and Sarah Walusimbi.

Feb 2013 – 2017/2018. William Oketcho (Chairman up to 2013), Eng. Christopher Ebal (Chairman from 2013), Eng. Alex Gisagara (Ag. MD up to Aug 2013), Dr. Eng. Silver Mugisha (MD from Aug 2013), Ruth Asiimwe Kanyaraju, Nduhura Mwebaze, Dr. Cecilia Oyet, Eng. Richard Cong, Daniel Luliro Nadhomi (till November 2018), Ziria Aliza Ndifuna, Eng. Aaron Kabirizi (from 2014), Henry Kibirige (from March 2016), Dr. Judith Tukahirwa Tumusiime (August 2014 – December 2016), Faridah Mpiima (from 2018) and Edith Kateete (Corporation Secretary)

2019-2020 – 2022. Eng. Dr. Badru Kiggundu (Chairperson), Dr. Eng. Silver Mugisha (MD), Faridah Mayanja Mpiima (up to June 2020), Rt. Hon. Daniel F. Kidega, Rachel Mbabazi Kiconco, Col (Rtd.) Stephen Mwesige Basaliza, Sarah Onyiru, George Runge Muzongyo, Eng. Joseph Oriono Eyatu (from July 2020), Canon Josephine Kasya (from July 2020) and Edith Kateete (Corporation Secretary).



MESSAGE FROM Managing Director

National Water and Sewerage Corporation (NWSC) commemorates its Golden Jubilee on 2nd December 2022. I wish to relay my heartfelt congratulations to the NWSC fraternity on achieving this major milestone. This book takes you on a journey through NWSC's evolution over the decades. It details the various transformations the Corporation has undertaken and the impact they have had. It also highlights major milestones from the 1970s as NWSC got its footing, to the present day, achieving accelerated infrastructure development and water for all.

I thank our stakeholders, including the Ministry of Water and Environment, the Ministry of Finance, Planning and Economic Development, the Development Partners and our esteemed customers for the support accorded to NWSC. I am grateful to the former and current Boards of Directors for the oversight, guidance and support given, I thank former and current Management and staff of NWSC for their commitment and hard work, towards fulfilling our mission to sustainably and equitably provide cost-effective quality water and sewerage services to the delight of all stakeholders while conserving the environment.

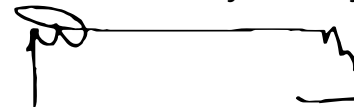
NWSC is Uganda's largest urban water authority providing potable water and sewerage services in 263 towns, with a customer base of more than 850,000 connections serving approximately 18 million people.

Over the past 50 years, the Corporation has gone through a process of change management and growth, and we are proud of several achievements. The first decade involved the evolution of NWSC, the second decade focused on rehabilitation and reconstruction following the turmoil in

the late 1970s and early 1980s, the third and fourth decades constituted the commercialisation of NWSC services and performance improvement management, and the fifth decade has centered on accelerated service expansion. Henceforth, NWSC remains a key contributor towards achievement of the National Strategic Goals as set out in the National Development Plan (NDP III), Government (NRM) Manifesto, and Vision 2040 and towards the attainment of the Sustainable Development Goal 6. To broaden the scope of our service delivery, the Corporation will over the next five years expand its customer base to over 1.2 million, reduce non-revenue water from 35% to less than 30%, improve the Customer Satisfaction Index from 86% to 90%, improve the staff engagement index to 76% to over 90% and grow its asset base from UGX 4 trillion to UGX 6 trillion.

Management pledges to work towards achievement of water and sanitation for all. We look forward to an even more remarkable 50 years ahead.

For God and my Country



The Management Team



Dr. Eng. Silver Mugisha
MANAGING DIRECTOR



Eng. Johnson Amayo
DEPUTY MD TECHNICAL
SERVICES



Sylvia T. Alinaitwe
DEPUTY MD FINANCE AND
CORPORATE STRATEGY



Edith Kateete
DEPUTY MD BOARD AFFAIRS AND
MANAGEMENT SERVICES/CORPORATION
SECRETARY



Eng. Alex Gisagara
SENIOR DIRECTOR
ENGINEERING SERVICES



Eng. Jude Mwoga
DIRECTOR INFORMATION AND
BUSINESS SOLUTIONS



Dr. Rose C. Kaggwa
DIRECTOR BUSINESS AND
SCIENTIFIC SERVICES



Proscovia L. Aketch
DIRECTOR INTERNAL AUDIT



Francis Owot
DIRECTOR FINANCE &
ACCOUNTS



Paddy Twesigye
DIRECTOR PLANNING AND
CAPITAL DEVELOPMENT



Christine Amucu
DIRECTOR HUMAN RESOURCE



George Okol
DIRECTOR COMMERCIAL AND
CUSTOMER SERVICES



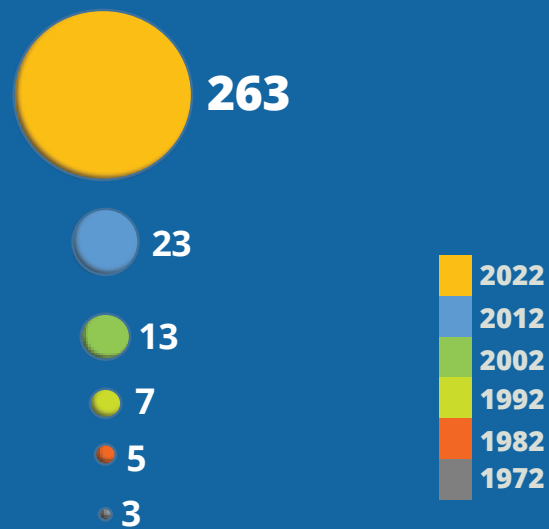
Eng. Edmond Okaronon
DIRECTOR REGIONAL
OPERATIONS



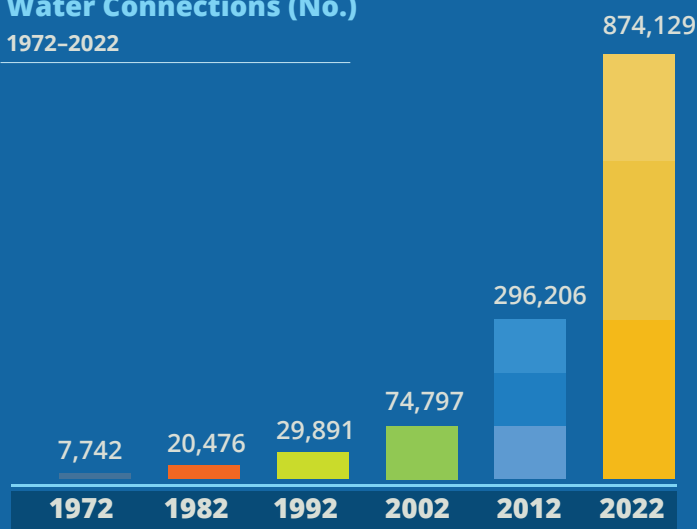
Eng. Mahmood Lutaaya
GENERAL MANAGER KAMPALA
WATER

OUR PERFORMANCE JOURNEY

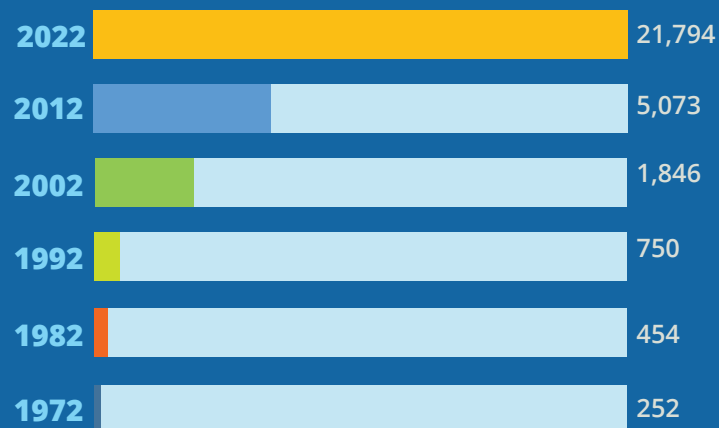
Geographical Growth
1972-2022 (Cities and Towns)



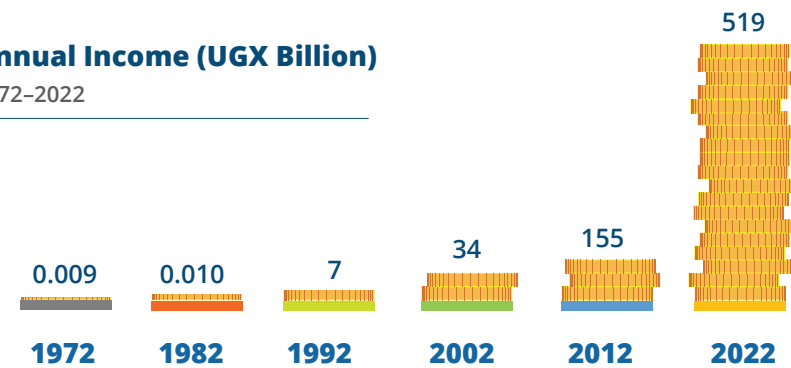
Water Connections (No.)
1972-2022



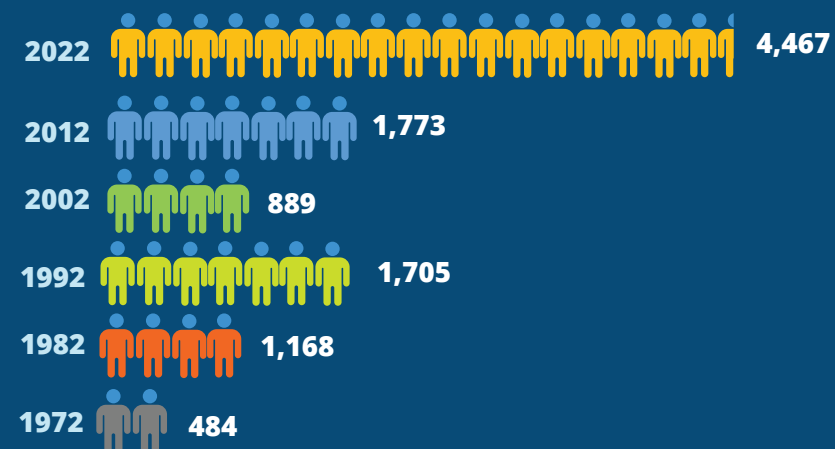
Water Pipe Network (Km)
1972-2022



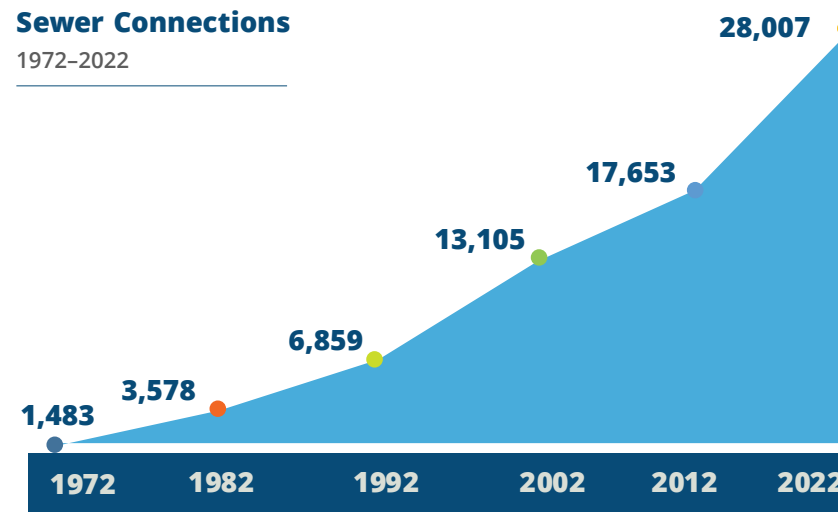
Annual Income (UGX Billion)
1972-2022







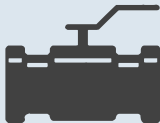




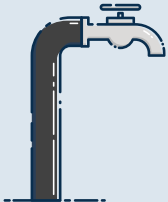

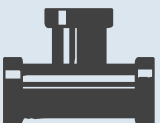

Staff Numbers
1972-2022

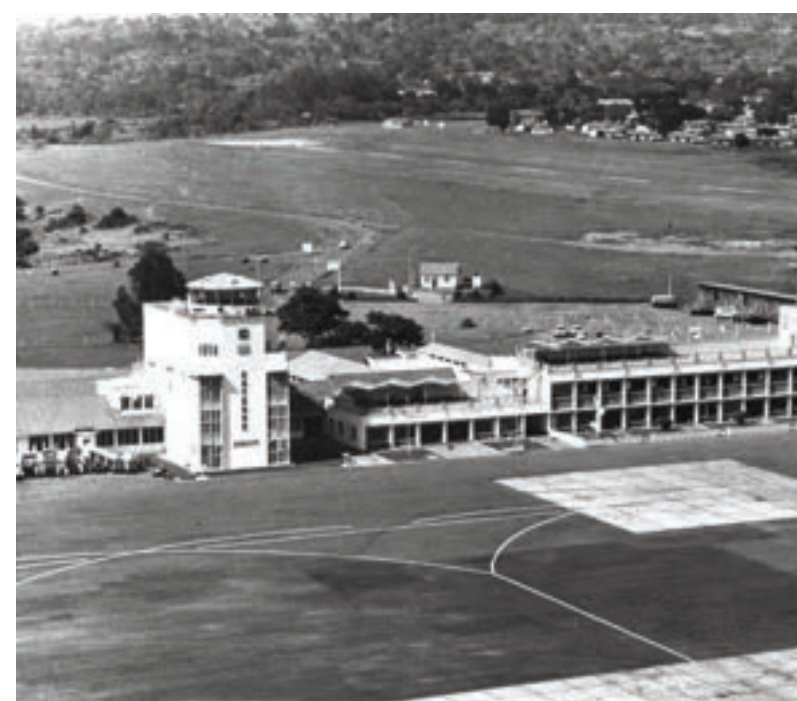
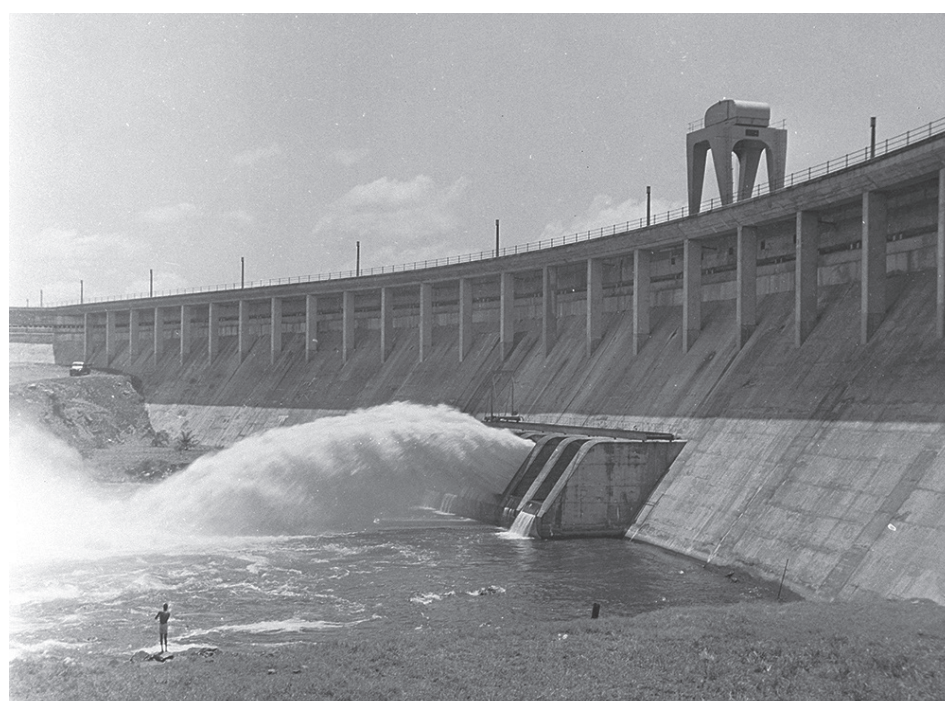


Sewer Connections
1972-2022



PERFORMANCE DATA AS AT OF JUNE 2022

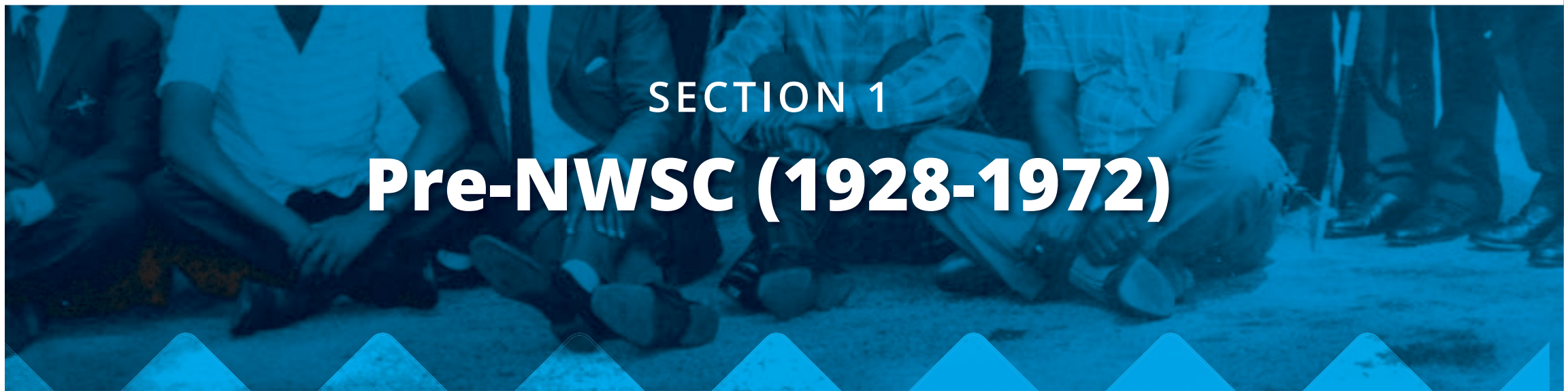
 263 Number of Cities and Towns	 84% Water Service Coverage	 857,347 Customers	 4,462 Staff
 21,794 Km Pipe Network	 23% Sewerage Service coverage	 96% Collection Efficiency	 5 Staff Productivity (Staff/1000 Connections)
 455 Million Litres Daily production	 29,019 Total Public Stand Pipes	 UGX 519 Bn Income	
 751 km Total Sewer Pipe Network (Km)		 4,102 Bn Asset Base (Ushs. Billions)	





SECTION 1

Pre-NWSC (1928-1972)





HISTORICAL PERSPECTIVE TO Public Water Supply in Uganda



The idea to provide public water and sewerage services in Uganda goes back to one century to the early years of the colonial administration. In the mid-1920s, the idea was propelled by public health concerns as rain-fed underground water in springs and wells on which much of the population relied was contaminated, leading to regular outbreaks of malaria, cholera, typhoid and plague.

In 1906 the Protectorate Government gazetted Kampala as a township. Administration was vested in the Kampala Township Authority, and its first land use plan was published in 1912. The second plan was introduced in 1930 to demarcate areas and regulate developments. With urban and peri-urban development increasing at a fast pace, the third plan was introduced in 1951. Rapid urbanisation warranted the introduction of the fourth plan, in 1972, the year when National Water and Sewerage Corporation was formed. By then, the management of water services was being done by the Kampala District and Water Board, with equivalent bodies in Entebbe and Jinja.

The very roots of public water supply services can be traced in public health challenges at the beginning of the last century. While businesses, residences and offices relied on rainwater harvesting for drinking water,

The Mayors of Jinja, Kampala and Mbale, Alderman S.N.Wanje, Alderman Y.W. Nega and Alderman Tito Mudanye respectively pictured at thier meeting in Kampala, August 1966.

sanitation was an entirely distinct challenge, with a difficult-to-enforce system of collecting the contents of household buckets in ox-drawn carts. Sanitary inspectors were deployed to enforce discipline like the digging and maintenance of latrines, the stocking of latrine buckets, and the regular disposal of what was euphemistically known as “night soil”. Filthy conditions led to regular outbreaks of disease, and it is this repulsive sanitary environment that set the stage for a more sophisticated and stable service.

Kampala Challenges London

The first overtures came in 1926 when the Protectorate government in Kampala proposed to the Colonial Office in London to construct a public water supply system for Kampala using water from Lake Victoria, but there was no immediate positive response, mainly because of doubts over financial viability. But Kampala did not give up. Fearful of further public health challenges, on 26 January 1927, the Protectorate Governor in Uganda wrote



Above: The Chairman of the Kampala and District Water Board, Serwano W. Kulubya, exchanging documents of the contract with a representative of Messrs Mannesmann Rohrleitungsbau, for the construction of the Augmentation Scheme at Ggaba Water Works, 3 June 1968.

Below: A view of the Karuma Bridge at its opening by the Governor-General, Sir Walter Coutts, in 1958. Karuma is a key water source on the River Nile





Main Street in Jinja in 1961. Gailey & Roberts suppliers of equipment to the water sector.

to the Secretary of State for the Colonies in London, UK, saying, "If [. . .] Kampala is to await the installation of a pipe-borne water supply until such time as it will pay for itself [. . .] then I venture respectfully to think that no such supply will be forthcoming within a period of time which need now to be taken into consideration, and the community must perforce continue to drink polluted and contaminated water, and to be exposed to the risk of epidemics of a serious nature and the loss of valuable lives."

On top of making the straight forward case for the urgency of a proper water supply system, that letter also hinted at something that, decades later, the stewards of the nationwide water supply system would achieve and then guard jealously: financial self-sustenance. It is something the Colonial Office in London was keen on, responding to Kampala's request with a letter, from the Under Secretary of State, saying:

" . . . it is quite out of the question at present to contemplate any subsidy from general revenue for a municipal water supply of this nature."

The Protectorate administration in Kampala was however very determined, and never gave up. On 10 January 1927, the director of Medical Services submitted a township health report urging for the introduction of piped water as the only way to deal with typhoid and cholera outbreaks.

Two months after the letter to London, in March 1927, the Public Works Department (PWD) developed a detailed design for water supply to Kampala from Lake Victoria. Kirwa Island, located 1km off the shores of the lake, was identified as a suitable intake point to house a rapid filtration unit, and thus was born what is now known as the Ggaba 1 Treatment Plant. The project was accepted in principle later that year, and then in August 1928, the





East African Loan Committee, sitting in London, approved a loan that was to be secured on the international capital market. The colonial power, Great Britain, provided the guarantee, and in 1929 construction work begun. Most of the work was completed in 1930. Subsequently the water supply in Kampala was financially self-sustaining from 1938, and even generated a small surplus well in to the 1950s.

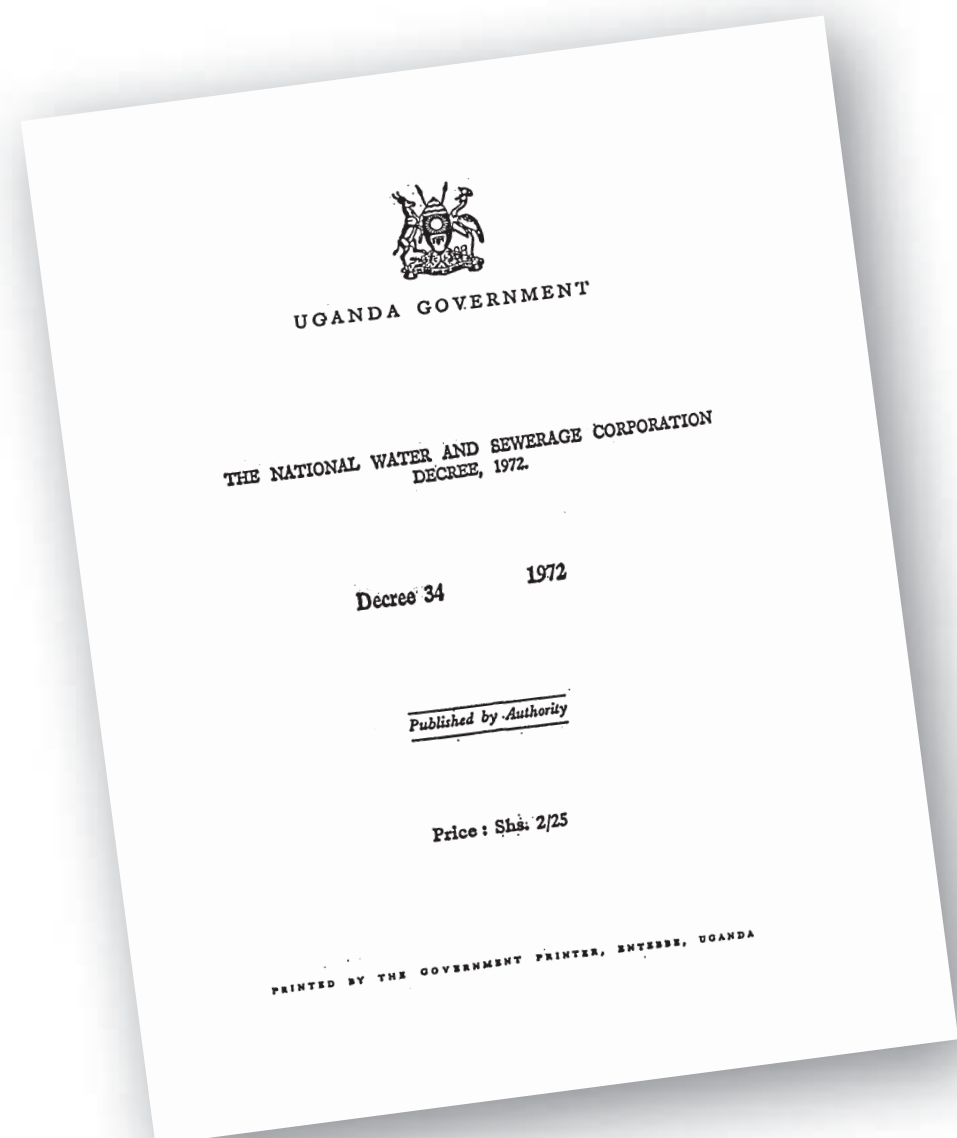
Later developments included the construction of the Bugolobi Sewage Treatment plant in 1948 and the institution of autonomous water boards for Kampala, Entebbe and Jinja, established by the Water Boards Act of 1958. The importance of these three centres lay in Kampala being the commercial capital, Entebbe the administrative capital where the Protectorate was governed from, and Jinja the industrial hub. It is these three entities that were merged in 1972 to form the core of what was to be called the National Water and Sewerage Corporation.

The 1958 legislation stipulated that the boards were deemed to be the Water Authority appointed under section 4 of the Waterworks Act. The Water Boards Amendment Act of 1967 made minor amendments concerning water rates and charges. These pieces of legislation were repealed by the National Water and Sewerage Corporation Decree, 1972.

NWSC was conceived by the Government of President Apollo Milton Obote in collaboration with the World Bank (WB), the World Health Organisation (WHO) and the African Development Bank (AfDB). Obote was deposed by the Army in January 1971, and the new Military Government, led by President Idi Amin, actualised the merger formation of the new nationwide utility.

Upon assumption of power, the Military Government dissolved the Parliament, and all laws were henceforth enacted by Presidential Decree.

The law setting up NWSC was Decree Number 34 of 1972: The Decree provides for the establishment of a National Water and Sewerage Corporation of Uganda with the Corporation taking over functions and duties of the Kampala, Jinja and Entebbe District Water Boards.





The Minister of Regional Administrations, J.S. Ochola (centre with stick) and the Mayor of Kampala, Alderman Y. Nega (fourth left) inspecting extended areas of Kampala, 4 July 1968. The city was one of three urban centres with autonomous water boards

Legacy for the Ages

There is an outstanding legacy in Kampala connected to the laying of the sewerage system. Ebenezer House on Colville Street, just opposite Communications House, was originally owned by John MacKenzie, who did a considerable job during the setting up of Kampala's sewerage and drainage system. As a token of appreciation the Protectorate Government gave him a plot of land there where he built Ebenezer House and completed it in 1937. MacKenzie stayed on in Uganda for nearly four decades, only departing during President Amin's rule. The building was later bought by Uganda Bookshop, an arm of the Church of Uganda, and they were still the occupants when NWSC marked its 50th birthday.

In the early to mid-1960s, the Kampala District and Water Board (KDWB), like many other national institutions, begun Africanising, with indigenous technocrats taking over from departing Protectorate Government expatriates. At KDWB, the General Manager was an Englishman, Engineer Cox, and in 1965 he would leave service in the post-Independence Uganda Government. The Ugandan who took over from him was an Indian-trained engineer, Christopher Kasozi-Kaya, who would steer KDWB for the next seven years till its dissolution in 1972, and then superintend over the birth of the successor NWSC as the first Managing Director.





SECTION 2

First Decade: NWSC Evolution (1972-1982)

ER AND SEWERAGE PORATION



NWSC STARTS AMIDST Political Turmoil

When he took office as the first Managing Director of NWSC in December 1972, Engineer Christopher Kasozi-Kaya would have known that it was an assignment fraught with risk. So too would his deputy and subsequent successor, Engineer Francisco Pinychwa Openyto and, possibly, their line Minister, Lt. Col. Wilson Erinayo Oryema.



Left: NWSC's first Managing Director, Eng. Christopher Kasozi-Kaya and wife, Mary, in 1972. Right: Eng. Francisco Pinychwa Openyto, the second MD

In 1972, Uganda was going through convulsions of uncertainty and unprecedented instability. At the broad national level, the Government of President Idi Amin had just declared the 'War of Economic Independence', later renamed the 'Economic War', whose centrepiece was the arbitrary expulsion of the Asian merchant class in August. The following month, the government fought a hot war, repelling insurgent forces of Ugandan exiles that invaded from Tanzania.

At the institutional level, Kasozi-Kaya would inherit empty coffers and a dysfunctional operation as the Asians, expelled three short months before, had formed a considerable proportion of the three soon-to-be-defunct municipal water boards' clientele. Their arbitrary departure meant that there was a sudden and deep dent in the corporation's revenues, made all the worse by the fact that those who replaced them in the factories, workshops, offices and urban residences,



Waste stabilisation ponds in Entebbe, Kitoro

did not know (let alone expect) to pay bills, given that they had just been handed the premises, businesses and going concerns without parting with a single shilling.

At the personal level, that same month, September 1972, Kasozi-Kaya's close friend and schoolmate Joseph Mubiru had been abducted from his home, taken away and presumably murdered by state operatives. Mubiru, who had served as the first Governor of the Bank of Uganda from 1966 to 1971, had been at college with Kasozi-Kaya at the University of Kerala in south India in the 1950s.

This was the backdrop of Kasozi-Kaya's acceptance of the task of founding NWSC. On December 12, 1972, at an event in Bugolobi, witnessed by, among others, Charles Wana Etyem, a young First Year Engineering

student at Makerere University, Kasozi-Kaya was midwife to the transitioning of water supply services from three autonomous urban-centred concerns to a utility service with a broad nationwide mandate.

Hitherto, Kasozi-Kaya had served as General Manager of Kampala District and Water Board (KDWB), the largest of the three boards, with the other two serving Entebbe, Uganda's first capital city, and Jinja, the industrial centre. Kasozi-Kaya had taken over the headship of KDWB from a colonial officer, Engineer Cox, in 1965 as the final vestiges of the colonial administration were being swept away in early post-Independence Uganda.

Central to the political dispensation of the time of NWSC's founding was that the Military Government ruled by



The pump house at Ggaba 1

decree. Parliament, the legislative arm of Government, had been dissolved shortly after the Army overthrew the Apollo Milton Obote administration, installing the Army Commander, General Idi Amin, as President. The legal instrument, Decree 34 of 1972, spelt out that “the object of the Corporation shall be to develop and operate in any specified area of Uganda water and sewerage services on a national and self-supporting basis.”

The NWSC was created to unify water and sewerage services in the three strategic towns of Kampala, Jinja and Entebbe. The existing water boards were too small in terms of operations and customer base (for instance in Kampala only 12,900 out of 500,000 residents were served whilst in Jinja it was 6,500 out of 50,000 citizens) and could not attract external funding for investment.

There was no benefit from economies of scale.

Furthermore, the boards were not able to attract and retain skilled manpower. The merger would thus ensure gains from economies of scale and delivery of more efficient services to the public. The Corporation was envisaged to later expand and serve all urban areas in the country.

Governance Structure

To run the Corporation, the government appointed a Board of Directors comprising: Permanent Secretaries (or their representatives) from the Ministries of Local Administration; Mineral and Water Resources; Health; Finance and Works and Communication; a representative of Kampala City Council (KCC); two representatives from industry and the general public and the Managing Director.



Above: President Idi Amin, Minister of Works Eng. James Zikusooka and Foreign Minister Wanume Kibedi meeting heads of German industries in Bonn, West Germany, February 1972. Germany has been a consistent source of support to the Ugandan Water Sector.

Far right: The tanks at Muyenga Tank Hill were the first major reservoir for Kampala's water supply

Right: The Government Printer in Entebbe in the 1970s. This was one of the Entebbe Water Board's major clients

The Start

The NWSC started operations as a Government department in the Ministry of Minerals and Water Resources. Management comprised of the Managing Director Eng. Christopher Kasozi-Kaya who had been Head of the Engineering Unit at the KDWB, and Eng. Francisco Pinychwa Openyto as the Deputy Managing Director and Chief Engineer. The three towns were served through water installations that abstracted water from Lake Victoria. In the case of Kampala the installations dated back to the 1930's.





To support operations manpower was initially drawn from other government departments e.g. for water quality monitoring this was carried out by the Government Chemist laboratory. Management slowly set up a structure and began to recruit gradually.

Kasozi-Kaya passed away in November 2020, at the age of 90. His widow, Mary, was, however, still alive as NWSC marked 50 years of existence and, on the eve of the Golden Jubilee celebrations, she recalled the institution's early years.

"When NWSC was founded, water services were very good, and you would not experience leakage. The Post Office and the Ministry of Works synchronised their work to prevent water leakages. They cooperated so well that whenever National Water was going to lay a supply pipe across the road, or Post Office was going to lay cables in the ground, road works maintenance crews were present to repair the road immediately. For us who were resident in Kampala, we had enough water. And the population was relatively small, which made services easier and more efficient. There wasn't much shortage mainly because there was little or no leakage."

In 1972, NWSC inherited the limited services of the three urban utilities of Kampala, Jinja and Entebbe. Mary recollects of the KDWB: "During that time people in Kampala were very few not so crowded as it is today and the water was enough. The water was mainly supplied to the big, elite offices and hospitals, but not really to the slums down in Bwaise and people didn't use it so much as today. That is why I think they managed to be efficient."



Decree 34 of the Establishment of the NWSC

With the *dissolution of Parliament* at the overthrow of the Milton Obote Government in January 1971, *the new Military Government of General Idi Amin (extreme right) issued laws by decree.* Below are excerpts of the decree, signed by President Amin, that established the National Water and Sewerage Corporation in December 1972.



UGANDA GOVERNMENT
THE NATIONAL WATER AND SEWERAGE CORPORATION
DECREE, 1972.

Decree 34 1972

Published by Authority

Price : Shs. 2/25

PRINTED BY THE GOVERNMENT PRINTER, ENTebbe, UGANDA

THE NATIONAL

WATER AND SEWERAGE CORPORATION
DECREE, 1972.

Section.

ARRANGEMENT OF SECTIONS:

1. Establishment, Objects and Functions of the Corporation.
2. Objects of the Corporation.
3. Membership of the Corporation.
4. Disqualification and functions of the Corporation.
5. Secretariat of the Corporation.
6. Meetings for membership.
7. Seal of the Corporation.
8. Custody of the Corporation.
9. Transfer of the Corporation.
10. Transfer of water and sewerage services in Kampala, Jinja and Entebbe to the Corporation.
11. Transfer of water and sewerage services in other areas to the Corporation.
12. No incorporation.
13. Merging of property in the Corporation.
14. Compensation on transfer of service.
15. Minister's directions to the Corporation.
16. Corporation to operate on sound utility management position of rates, charges and fees.
17. Mergers.
18. Staff.
19. Managing Director.
20. Internal auditor.
21. Appointment of officers and servants of the Corporation.
22. Financial Provisions.
23. Corporation to deposit its funds in bank.
24. Accounts.

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THE NATIONAL WATER AND SEWERAGE
CORPORATION DECREE, 1972.

A Decree To Establish A National Water And Sewerage Corporation To Develop, Operate And Take Over Water And Sewerage Services In Uganda, To Define Its Constitution And Functions, And For Other Purposes Connected Therewith.

Establishment, Objects and Functions of the Corporation.

1. (1) There is hereby established a corporation to be known as the National Water and Sewerage Corporation which,
 - (a) shall be a body corporate with perpetual succession and a common seal;
 - (b) shall, in its corporate name, be capable of suing and being sued;
 - (c) may, for the purposes of discharging its functions under this Decree, acquire, purchase, hold or lease and otherwise dispose of any property, movable or immovable; and
 - (d) shall exercise such powers and perform such functions as are conferred on it by this Decree.
- (2) The National Water and Sewerage Corporation shall be a Water Authority for the purposes of the Waterworks Act and shall have and exercise all the powers conferred on a Water Authority by that Act, subject to the modifications contained in Schedule I to this Decree.
2. (1) The objects of the Corporation shall be to develop and operate in any specified area of Uganda water and sewerage services on a national and self-supporting basis.
- (2) Without prejudice to the generality of subsection (1) of this section, the Corporation may, in connection with any of its objects,
 - (a) take over from any person or local authority the development and operation of water and sewerage services;
 - (b) provide, transmit, supply and distribute water for public, domestic or industrial purposes;

Cap. 137.

Schedule I.

Objects and functions of the Corporation.

- (c) establish, operate and control sewerage systems;
- (d) design, operate, maintain and manage water and sewerage systems;
- (e) conduct research relating to water, sewerage and other connected subjects;
- (f) make engineering surveys and plans;
- (g) construct, reconstruct, instal, assemble, repair and operate waterworks;
- (h) subject to the provisions of the Public Health Act, determine water and sewerage service rules, plumbing codes and other relative standards;
- (i) supply water or sewage service in bulk or to individual consumers;
- (j) organise and conduct training programmes for building up manpower requirements in connection with water and sewerage services, particularly in the areas of management economics and utility operations; and
- (k) carry out any other activities connected with, incidental or conducive to the attainment of any of its objects.

3. (1) The Corporation shall consist of the following members, namely,

- (a) the Chairman who shall be appointed by the Minister;
- (b) the Permanent Secretary of the Ministry responsible for mineral and water resources;
- (c) the Secretary to the Treasury;
- (d) the Permanent Secretary of the Ministry responsible for local administrations;
- (e) the Permanent Secretary of the Ministry responsible for health;
- (f) the Managing Director; and
- (g) two other persons appointed by the Minister, one of whom shall represent the interests of industry.

(2) The appointed members of the Corporation, other than the Managing Director, shall hold office for a period of three years; but shall be eligible for reappointment.

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"local authority" means an administration of a district, the Kampala City Council, a municipal council, a town council, or a town board;

"Minister" means, except where it is otherwise expressly provided, the Minister responsible for mineral and water resources;

"specified area" means an area of land declared under an order made by the Minister under section 10 of this Decree;

"water authority" has the same meaning as in the Waterworks Act;

"waterworks" has the same meaning as in the Waterworks Act.

33. (1) The Water Board Act is hereby repealed.

(2) Notwithstanding the provisions of subsection (1) of this section, the Kampala and District Water Board (Payment of Rates and Charges) Order, shall continue in force until it is revoked.

34. Schedule 4 to the Public Lands Act, 1969, is hereby repealed by substituting for paragraph 4 thereof, the following—

"4. The National Water and Sewerage Corporation."

35. This Decree shall come into force on such date as the Minister may, by statutory order, appoint.

MADE under my hand and the Public Seal, this 16th day of December, 1972.

GENERAL IDI AMIN DADA,
President.

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SCHEDULE 2—continued.

4. On the effective date, the former authority shall deliver to the Corporation all movable property including books, papers, documents, minutes, receipts and ledgers appertaining to its operations.

5. Every agreement, whether in writing or not, to which the former authority was a party immediately before the effective date and whether or not the agreement is of such a nature that the rights and liabilities thereunder could be assigned, shall have effect as from the effective date as if,

- (a) the Corporation had been a party to such agreement; and
- (b) for any reference (however worded and whether express or implied) to the former authority there were substituted in respect of anything to be done on or after the effective date a reference to the Corporation.

6. Any appointment of any officer or servant of the former authority relating to any service transferred to the Corporation which is subsisting immediately before the effective date shall be deemed to be made by the Corporation under this Decree, and for the purposes of determining the rights of pension or gratuity on retirement, the service of such officer or servant shall be regarded as continuous service from the date on which he was appointed by the former authority.

7. Any pending proceedings or any cause of action relating to any service transferred to the Corporation on the effective date to which the former authority was a party or liable may be continued or enforced against, by or on behalf of the Corporation as if the Corporation was a party thereto.

8. Where anything has been commenced by or under the authority of the former authority before the effective date and such thing is within the objects and functions of the Corporation or was done in relation to any of the service transferred to the Corporation, such thing may be carried on and completed by, or on behalf of, the Corporation.

Date of publication: 18th December, 1972.

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The Government official who superintended over the transition from autonomous boards to a nationwide utility was Lt. Col. Wilson Erinayo Oryema, Minister of Land, Mineral and Water Resources. Charles Wana-Etyem, who would later play critical roles in NWSC's operations, described Oryema as being "a very composed person who kept to his script and presided on this event (transition)". As well he might, as developments a few years later were to prove, with Oryema becoming one of thousands of Ugandans to perish at the hands of an erratic and insecure regime.

Wana-Etyem was a First Year Engineering student at Makerere University, and he did somehow manage to get his way in to the formal ceremony that inaugurated NWSC that December day in 1972. "As young engineering students you would interact with 3rd year seniors who were doing courses in water processing; that is how I managed to hitch a ride to join the celebrations. At that time, the Asians who formed a large part of the technical middle category of the Water Sector had just been kicked out by Idi Amin. So, while you had these senior African engineers coming on board it was already apparent that we were going to have challenges running these systems," he recalled.

Fifty years later, as NWSC celebrated its Golden Jubilee, Wana-Etyem would look back: "I saw myself as a young civil engineer who would be shaped by the choices that would be available at the time." In 1989, Wana-Etyem would join NWSC from the world of academia where he had been working as Senior Lecturer in the Department of Civil Engineering at Makerere University. He would work for NWSC for 10 years, serving as Operations Manager and Deputy Managing Director, before joining the private sector, and later on serve on the Board of Directors.





Top Left: Water Minister, Lt. Col. Wilson Erinayo Oryema and NWSC Managing Director Eng. Kasozi-Kaya (with back to camera) meeting staff at NWSC head office on Jinja Road, Kampala.

Above: Ministry of Water and Mineral Resources sign agreement for the first water project.

Left: Expelled Asians lining up at the departure lounge at Entebbe International Airport in 1972. Their expulsion affected NWSC's client base very deeply.





Top: A Uganda Army soldier with vehicles captured after the 1972 invasion. NWSC was founded in the midst of great political, social and economic instability. Centre: President Amin meeting the Asian community at Kololo Airstrip. He was to expel them shortly, plunging the economy and the Water Sector into chaos. Far Right: Organisation of African Unity Summit held in Kampala in 1975 amidst serious water shortages

In its early years, NWSC would get off to a rocky start, what with the tense political environment. From 7 to 11 February 1972, President Amin toured the Federal Republic of Germany, meeting with Chancellor Willy Brandt and President Gustav Heinemann. General Amin's request for particular assistance was politely turned down and on his way back from Germany, the Ugandan leader made a stopover in Libya, where fellow military strongman, Col. Muammar Gaddafi, filled the gap while also putting a spoke in the wheel of what hitherto had been a cordial Uganda-Germany affair. Unbeknownst to the Water Sector workers, these events were to prove a major obstacle to the operations of the soon-to-be-established NWSC and, indeed, the entire sector. From early on in the post-Independence dispensation to date, German technical

assistance has been key to building capacity and providing funding.

Mary Kasozi-Kaya recalled the fallout: "In the early years of President Amin, Eng. Kasozi-Kaya was using a German firm to promptly provide spare parts. For instance if there was a breakdown at the Ggaba water plant, as Managing Director he would just place a telephone call to Germany and, shortly, spare parts would be airlifted to Uganda. But this also coincided with the breakdown of relations between the President and the Europeans – Amin hated them. And so any liaison between the NWSC and their German partners was treated with great suspicion."



For management at NWSC, their long standing relationship with German technocrats became a case of damned if you do, damned if you don't. Catch-22 situations, in which the solution to a problem would be impossible because it could also become the cause of a problem, would crop up every now and then as Kasozi-Kaya would discover in mid-1975.

That year Uganda was preparing to host the Organisation of African Unity (OAU) Summit in Kampala. Scheduled for July 28 to August 1, the nation was tense – security forces on the alert, school children practicing their drills, civil servants at their smartest, civic administrators cleaning up. At NWSC, the effects of the economic embargo placed on Uganda had begun to be felt, particularly in the availability of spare parts and scarcity of foreign exchange.



To hedge against a breakdown of water distribution systems and the drying up of the taps at the conference venue and hotels where the international guests would reside, the Eng. Kasozi Kaaya devised a scheme to ensure continuous flow.

The systems at the Ggaba station were inefficient and NWSC management decided to ferry water in trucks (bowzers) and fill the tanks at Nakasero's Gunhill (adjacent to State House and the Sheraton) that would supply the key conference venues - Nile Mansions (Serena Hotel today), the International Conference Centre and International Hotel (Sheraton Hotel) – to ensure an uninterrupted flow. Receiving reports about the water trucks, a jumpy and suspicious President presumed that Kasozi-Kaya was sabotaging the summit conference, and promptly fired him.

That July day, Kasozi-Kaya arrived at his office for what he assumed would be a normal day. Shortly after arrival, a state operative from the President's Office came in and told him to vacate the premises: "You are fired! Because of taking water by tank and not pipe." That was it: no discussion; no bargaining; no time to file a response, let alone a defence. This was a time when a number of public servants lost their lives on account of professional decisions that would have rubbed powerful individuals the wrong way, and Kasozi-Kaya did not need to look further than three years earlier to the fate of his schoolmate and friend, Bank of Uganda Governor Mubiru, whose mysterious disappearance was still being quietly discussed by a frightened populace.

Mary Kasozi-Kaya was at home that day when her husband returned, earlier than usual, and told her a crisp and yet deep message: "We are fired!" Not long afterwards, strange anonymous individuals began to come to the Kasozi-Kaya home, a white-washed double storey family mansion, capped with an orange-tiled roof, and set in generously wide acreage in the leafy Kampala residential suburb of Kololo, off Lugogo Bypass. In 1970s' Uganda, such visits tended to bode ill, for they were often precursors of a property grab by state agents who would then abduct the target, usually never to be seen again.

Forty-seven years later, Mrs. Kasozi-Kaya recalled the tension: "We feared very, very much. We thought it was our turn (to be subjected to abduction and liquidation). Strangers started inspecting the house. Within two weeks we left those. We are eternally grateful to Mrs. Hannah Lule (wife of future President Yusuf K. Lule) who came to our rescue and gave us a free house in Lungujja. But it was a period of fear to us and the children and we didn't think of fleeing into exile. It was also the



year when there was a shortage of petrol, but we thank God we went through the period up till 1979, when President Amin was overthrown."

Back at NWSC, Kasozi-Kaya was replaced as MD by his deputy, Eng. Francisco Pinychwa Openyto, who fared no better. Even though he outlived the Amin regime, he had to endure constant interference from senior army officers and security officers. Whenever water supplies broke down, they tended to storm the offices or even the residences of the Corporation's managers and order them to fix whatever had caused the interruption.

In 1976, the Public Safety Unit, an arm of the Police that was notorious for torture and execution of presumed government opponents, arrested the entire staff of NWSC's transport and stores department as they followed up robbery allegations against one driver.



Top: President Amin meeting the Regional Manager of East African Railways at the Kampala Railway Station, a key customer of NWSC. Right: Lt. Col. Erinayo Wilson Oryema, the Minister of Mineral and Water Resources, superintended over the foundation of NWSC.

MD Openyto later recalled that he was arrested a total of 15 times from 1975, when he took over from Kasozi-Kaya, to 1979, when the Amin government was ousted. At least Openyto got away with his life, a blessing that his former Minister Oryema did not have. On 16 February 1977, midway through Openyto's five-year ordeal, Oryema, alongside fellow Cabinet Minister Charles Oboth Ofumbi, and Archbishop Janan Luwum, the head of the Church of Uganda, Rwanda and Boga-Zaire (eastern Congo) were arrested on what many believe, were trumped up charges of plotting to overthrow the government. A day later, all three were dead, supposedly in a traffic accident trying to overpower their driver but, much more plausibly, arbitrarily executed while in detention at the State Research Bureau security facilities in Nakasero, next to All Saints Cathedral.

As the economy deteriorated and inflation wiped out earnings and savings, many consumers found it difficult to meet their financial obligations. Public services like the water and electricity utilities were not exempt. In Jinja, the Governor of the Eastern Province, as the local administration units were known, took it upon himself to collect revenue for NWSC. Accompanied by soldiers went out one day to collect consumers' water bills, storming homes and whipping the citizens! This harmed the relationship between NWSC and its clients, as an oppressed people saw the Corporation as one with the hated government.

When Amin was overthrown in April 1979, Tarsis Kabwegyere, the new Minister of Lands and Natural Resources in the Yusuf Lule government, went to



Above: Mineral and Water Resources Minister, Lt. Col. Oryema, inspects workers digging a trench for water pipes on Kachung Road in Lira, 13 February 1974. Extreme right: Candy filters at the Ggaba 1 Water Treatment Plant

Mengo Hospital where Kasozi-Kaya was overseeing the construction of the Albert Cook building and asked him to return to NWSC as MD, which he did. In 1981 he was made the Chairman of NWSC, a role he played for a short time. His wife recalled that he stopped being directly involved with the Corporation in 1983.

By the time Kasozi-Kaya and Openyto transitioned out of the Corporation at the end of NWSC's first decade, they had laid the foundations for its growth and expansion, the first

major drive being the extension of services in the First Water Supply Project. In March 1981 the World Bank approved of the project that would extend services beyond Kampala, Entebbe and Jinja to include Mbale, Tororo, Masaka and Mbarara. The World Bank through its lending arm, the International Development Agency (IDA), stumped up USD9 million, with the rest of the financing coming from the Government of Uganda, USD2.7 million, and NWSC, USD 6.3 million.





How Water Quality Monitoring Started



Juliet Kutuusa joined NWSC in 1973, the year after it was founded and retired in 2009 at the rank of Senior Lab Technician

In 1972, Uganda Polytechnic Kyambogo (UPK), where I was studying, instructed us to look for sponsors from recognised institutions. The following year, I went to Plot 39 Kampala Road, the then head office of NWSC. Since I did not have an identity card, I carried three counter books that were stamped with the college seal which would serve as proof that I was a student. I was 22 years old at the time.

At Plot 39, I was directed to the Deputy Managing Director, Eng. Francisco Pinychwa Openyto, who sent me to the Senior Personnel Officer, Mr. GW Mukiibi-Nsambwe. A letter was promptly processed notifying UPK of my guaranteed sponsorship by NWSC. A second letter authorised my training at the Bugolobi Central Laboratory. Eng. Openyto told me to take this opportunity seriously and instructed that I provide them with progressive reports every term. I realised that I had to work hard, because any nonsense could lead to a cancellation of the sponsorship.

I reported to the Chief Chemist, Mr. Charles Lwanga, a tough and no nonsense man. The Central Lab was very small, with two sections - Chemistry and Biology - headed by Mr. Opok Ojok and Mr. Mawejje respectively. Both were technicians. Later on, the personnel grew to four Laboratory Technicians and two Laboratory Attendants. The lab had



Left: The candy filters at Entebbe, one of the three original towns with a public water distribution system. Above: Juliet Kutuusa reliving her days in a long career spent in the laboratory

little equipment, and all systems were manual. In 1974, after completing my certificate course at UPK, NWSC appointed me as Laboratory Assistant, a position I held for two years and

later in 1977 was appointed Laboratory Technician. I rose to the rank of Senior Laboratory Technician in charge of the Chemistry Section.



Above: Water quality testing at the old laboratory in Bugolobi.

On a standard day back in the 1970s and 1980s, we would go out to the water works to check the quality of water. We had limitations in the field equipment to use and most of them were manual. We used the basic manual chemistry methods such as titration and drew graphs manually. We kept all our records in notebooks and it was the Chief Chemist who computed the results. Today the Lab is equipped with modern automated equipment.

In the late 1980s, we had a lot of rehabilitation and expansion going on, which led to additional Areas and expansion of the staff roll. Through infrastructure projects more equipment was provided to the Central Laboratory. The Central Lab at that time was not as modern as it is in 2022. Then there was only one room to work in but now there is a Research lab, a Chemistry Lab, Biology Lab, stores, and offices. The 1990s



Above: Water quality checks at a school

Below: Juliet Kutuusa carrying out water analysis in the lab

saw the a good number of Chemists and Technicians employed. Computerisation of data began.

How Training and Capacity Building Started

Joshua Kibirige's four-decade career was a record. He served in Jinja, Kasese, Mbale and Kampala in positions that covered many roles. He shares with us his contribution in setting up the Training Centre in Bugolobi.



While my official designation was 'Trainer', I ended up as a jack-of-all-trades, doing many other things, occupying many different offices. I did a Diploma in Mechanical Engineering and my first placement was Jinja as an Inspector of Works in July 1976. By that time NWSC was still in three towns. With time the Corporation's systems became more sophisticated and I recall Eng. Hillary Onek, MD for most of the 1980s and 1990s, declaring that it was not proper to have complex systems without people being trained.

NWSC engaged Crown Agents, who took some staff overseas to train. These returned and trained others. I was among those selected to go to Nottinghamshire in the United Kingdom for five months in 1986. In 1987, I moved from Jinja to Kampala to start a training school at the sewage treatment plant facility. There was a need to have somebody closely attached from



The old Training Centre at Bugolobi

the UK institutions where we trained to come and monitor. Harry Jayles was our first Training Manager and we found that setting up was a little difficult because the rooms were not up to standard. Training materials were flown in and we had to set up a store room for the equipment. The main courses were: Mains and Pipe Laying led by Jack Mundua; Leak Detection and Control by Ahmed Abdullah; Computer Training by Ralph Kaddu who doubled as a driver; Pump Practice, Performance and Operations led by Mirira and later by Hannington Kibehere; Electricals by Moses Opara and supervision by Godfrey Muganga.





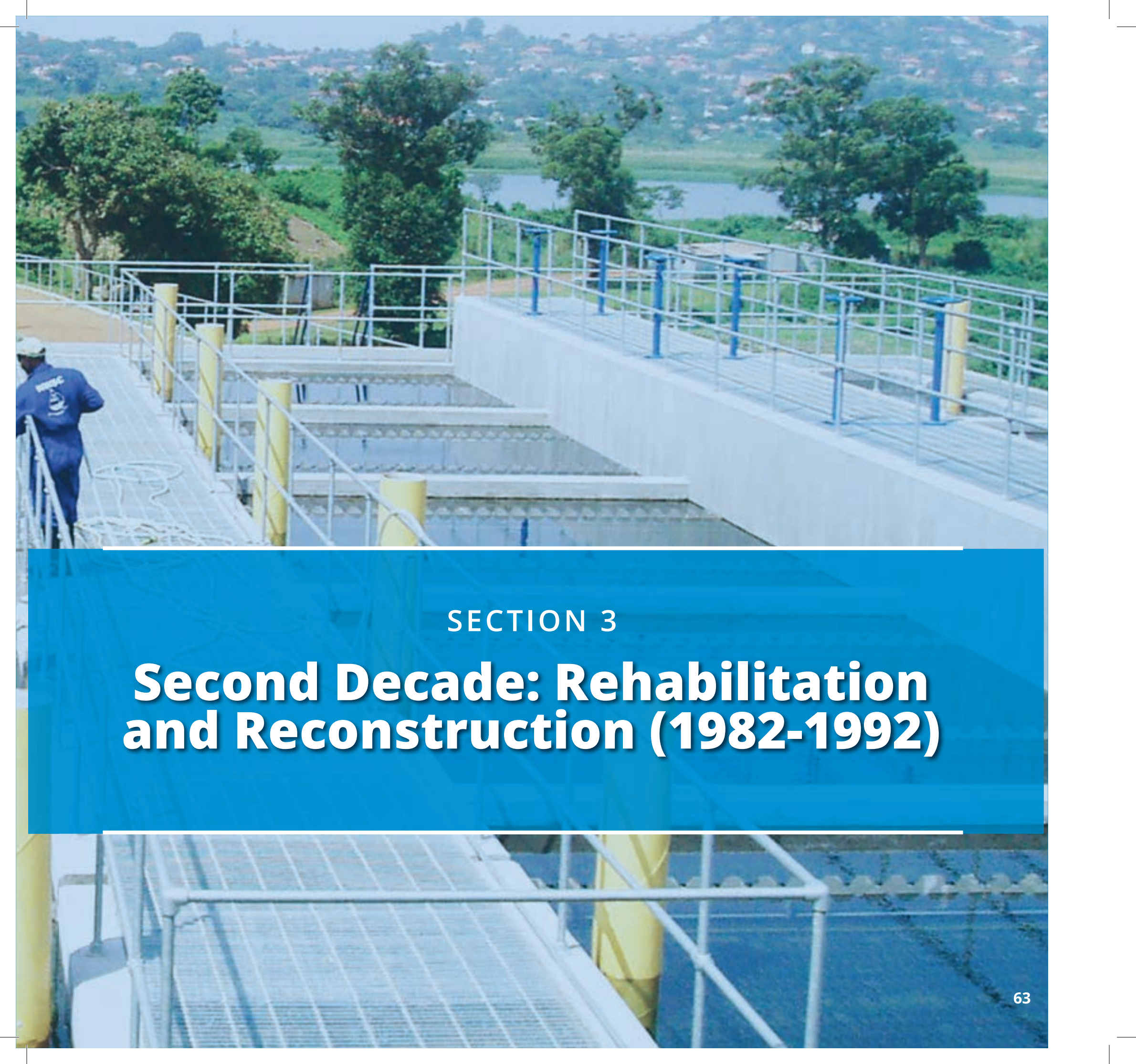
Transformational Breakthroughs

- Establishment of the NWSC Headquarters at Plot 39 Jinja Road in Kampala
 - Ingenuity to keep plants running that involved use of local materials in the absence of spares
 - Lobbying the Ministry of Finance and Government to cover the cost of critical inputs like electricity, salaries and chemicals
 - Creation of the Central Laboratory
 - Targeted recruitment of staff
 - Revival of interest in funding of investments
 - First Water Supply Project /Seven Towns Water Project
-

Impact

- Improved water supply
 - Effective water quality monitoring
 - Skeleton staff maintained
 - Expansion of service coverage
 - Improved performance
-





SECTION 3

Second Decade: Rehabilitation and Reconstruction (1982-1992)



SPREADING OUT to Other Towns

The second decade's flagship was the Water Supply Engineering Project, which came to be known as the Seven Towns Water Project. Hitherto services were limited to Kampala, Jinja and Entebbe, the pre-NWSC focal points; the project was designed to extend the NWSC's reach to include the major towns of Masaka, Mbarara, Mbale and Tororo, bringing the total of serviced urban centres to seven.

The project's main components were the Water Supply Engineering Project of 1981, and then the Water Supply and Sanitation Rehabilitation Project of 1984, revamping badly deteriorated water and sanitation infrastructure in the seven towns. These major undertakings kick-started the decade, which also got off to a fresh start, with the Corporation getting a new Managing Director, young (Makerere) University engineer, Hilary Onek, who took up the reins in 1982 and would oversee the rehabilitation and reconstruction phases until 1998.

The project was financed principally by the International Development Agency (IDA), a lending arm of the World Bank that supports a range of development activities that pave the way toward equality, economic growth, job creation, higher incomes, and better living conditions.

Approved by the World Bank in March 1981, the IDA provided technical assistance to strengthen the activities of the Project

Coordinating Unit in the Ministry of Lands, Mineral and Water Development; assist in supervising engineering consulting work; and developing a programme of hygiene education for the general public in water use and sanitation. Funds were also provided for vehicles, staff houses and offices, water meters, testing and repair facilities, and materials.

As NWSC marked the Golden Jubilee, Eng. Onek recalled the challenges he found when he joined at the beginning of the second decade: "There was no water in Kampala, he reminisced. Water tankers were roaming all over the city, delivering water to Kololo Summit, Nakasero, and other suburbs. I took my time to study the systems that had hardly received any maintenance in the ten years of the Corporation's existence. The systems were corroded, the water filters clogged, and many parts were a shambles. I mobilised the technicians - they were good technicians - individuals like Gidudu, Ogwal, and Sam Setyabula. Sam had the network in his brain. He was like a computer; he knew which valve was



Bunkoko Water Treatment Works in Mbale

where, delivering how much water where. “I associated myself closely with these technicians, and in the field we ventured to overhaul the filters. Equipment for chlorine was corroded over time so we had to improvise. Fortunately, we had a good workshop from where we fabricated parts. All fifteen pumps that were pumping water out to the city of Kampala were non-functional. NWSC had no money at that time, and the Government was contemplating closing it and returning the water system to Kampala City Council or municipal authorities in Jinja and Entebbe. The Corporation was not generating any money; it was not functional, and the Government at the time thought the municipal authorities could put some resources there. I ventured to put back the system and within four months we overhauled ten pumps using all my technical knowledge from 8.00 am to 8.00 pm.

Eng. Bill Wandera, who joined the Corporation in 1982 as a pupil engineer attached to Ggaba 1 Water Works, recalled that there were only two functional pumps, and whenever either broke down, which was often, half the water supply to Kampala city would cease. “You would come in the morning and the second pump is off because a fuse burnt in the night, so you would run around looking spares to purchase. Due to the poor cash flow, purchase of new pumps was out of the question. The population was not happy with NWSC. We were National Water by name, but we were neither providing water nor were we national. Eventually this changed because the rehabilitation had begun in earnest. New pumps were brought, money was raised from donors and the second pump station (Ggaba II) was built, and the water supply to the city kept rising. Pressures on the technical side kept on



Ggaba 1 Water Treatment Plant

reducing.” On two occasions, Wandera, who would rise to be Chief Engineer for Planning and Development, was part of the teams that flew to Washington DC to agree with donors on the technical aspects of the financing they were extending to the water sector. “Credit negotiation was just a technical word; by the time one was invited to Washington everything had been agreed to, at the leadership level. You went there to understand and appreciate the agreement: what was going to happen, your obligations to get the financing done, the roles you would be playing, and the timelines. After that the credit would come. We were able to get the finances and technical facilitation from IDA/World Bank as the main source enabling us to expand to seven cities. There were other sources, like GTZ, (the German Development Agency) and from the French.”

To get the first expansion project going, the IDA put up USD 9 million, with the rest of the financing coming from the Government of Uganda, USD 2.7 million, and NWSC USD 6.3 million. The project was implemented at a time of great civil strife in Uganda. The armed resistance to the Obote II regime had begun in 1981, and would not end till January 1986, when the National Resistance Movement (NRM) overthrew the Okello military regime which had, in turn, ousted President Milton Obote in July 1985. Paddy Twesigye remembers the leaking tanks. “By the time serious work begun (after the disruptions of civil violence and political instability up to early 1986), the new Braithwaite tanks at Ggaba had bullet holes. They were leaking.”





“We had little capacity to manage. By 1987 there were just five engineers – my own boss was not even qualified to be a plumber. We had just five vehicles,” recalls Twesigye.

The Seven Towns Project focused mainly on improving water supply and waste water systems in Kampala, Mbarara, Masaka and Jinja and more limited improvement of water supply systems in Entebbe, Mbale and Tororo.

Paddy Twesigye oversaw works in various towns that included construction of the Boma reservoir, sewage waste stabilization ponds, and the conventional waste water treatment plant in Masaka; and reservoirs in Mbarara. He recalls that focus was also given to strengthening NWSC capacity through technical assistance and training in technical, commercial and financial operations as well as in project coordination and construction supervision. Spares and chemicals were also provided.

German technical support was especially strong in NWSC and its precursor municipal utilities. One particular beneficiary was Charles Odonga, a mechanical engineer who joined NWSC in 1982 as a pupil engineer just fresh from university and was among the few engineers who were recruited at the beginning of the professionalisation of the water services. Odonga would spend nearly a quarter of a century with the Corporation, up to 2006 with the earlier parts of his career in the static plant and mobile workshops. Later on he served in key management positions as Chief Engineer, Chief Manager and eventually as General Manager Kampala Water.



Charles Odonga had a long career, retiring as General Manager, Kampala Water

Much of Odonga's expertise was acquired in Germany, where he was seconded to do professional practical training in water supply for one and a half years. "There were many of us but my part was to focus on maintenance of plants so I spent a lot of time doing practical training in workshop practices and also learning how to run a water supply system. When I returned I was taken straight to the workshop.

GTZ was providing technical assistance to NWSC and had brought experts to help with the maintenance of static plants and motor vehicles at head office as well as experts in finance and engineering (a chief engineer and a finance manager). NWSC provided counterpart staff to work with them. "I was the counterpart for the maintenance expert.

It was very good experience - they were bringing in expertise, setting up systems and processes, basically bringing professionalisation into the way we run the organisation, particularly with the static and mobile plants." This was a decade of rehabilitation and reconstruction.

As the 1980s were drawing to a close, the Government prepared, with IDA assistance, to invest in the Urban Water Supply and Sanitation Program for the seven towns, estimated to cost USD 194 million. IDA agreed to support the Second



Water Project as a first phase of this program, and also agreed to finance in 1991 the First Urban Project to develop other urban infrastructures and services.

In 1990, the USD 60 million Second Water Project, co-financed by the World Bank, the European Economic Community, the Austrian Government, and GTZ, was to prove a new take-off point for NWSC.



Left: Mechanic carrying out repairs in the workshop, Top: Water Treatment Plant at Bunkoko Mbale, following rehabilitation.



Onek's dirty encounter with the Water Minister



Hilary Onek began serving as Chief Engineer in 1982, was appointed as acting Managing Director in February 1983 and confirmed in September 1983 of NWSC. His 16-year career had many ups and downs, as he recalled on the eve of the Golden Jubilee.

During my interview for the position of Chief Engineer, when I was about to leave the interview room, one of the panelists took a final look at me and remarked: "Now look: you are younger than the minimum age - that disqualifies you automatically."

What do you have to say about it?" I said, "Sirs, I applied for this job consciously knowing that I am underage. I saw the challenge and thought I could tackle it because I have the knowledge to do the required job." I paused a bit and asked them, *"If you want old age you can have the old age. But I have the knowledge."* They laughed and *dismissed me from the interview room*. I left and went back to Makerere, where I told the story to my 4th year class in the Faculty of Technology. They, too, laughed.

I joined National Water in 1982 as its Chief Engineer. I had been a lecturer at Makerere University from 1980, and the tough economic situation in the country meant that the university pay was not enough to take one through the month. Looking out for greener pastures, and in search of more challenging

engagements, I applied for the position of Chief Engineer at the NWSC. It was spelt out clearly that the candidate should be 35 years and above. I was two years younger but all the same I submitted my papers. And I think those compiling the candidate shortlist were convinced that I had the right qualifications and I was invited among eight interviewees.

One week after the interview panel's dismissal I got a call at the Faculty of Technology, asking me to report to NWSC. To my surprise I was given the job as Chief Engineer. These were very difficult times in Uganda – there was no water in Kampala - and when I took the job, I embarked on some very tough work. Thankfully we had great camaraderie, which helped in teamwork - for lunch we ate bananas (*'bogoya'*), a simple meal that brought me closer to my workers.

In Kampala we had 15 pumps, of which six or seven were low level pumps. We also had two reservoirs, one located at a high level, at Muyenga, to supply the hilly areas of Kampala, and the other situated lower, in Nakasero behind the National Water offices, for lower altitude locations. There is a big underground



Eng. Hilary Onek, Chairman Parliamentary Committee on National Resources and NWSC MD Dr William Muhairwe at commissioning of Phase II rehabilitation of Ggaba 1, 24 May 2001. Centre is Head of European Commission Delegation to Uganda, Illing Sigurd

tank on Gun Hill, in this place at Nakasero (in the colonial times a fierce field gun, a cannon, took pride of place on top of the embankment).

My work was not limited to Kampala. I was doing similar roles in Entebbe as Chief Engineer - I would spend one or two days there. Entebbe was simpler to handle. There was a problem with intake and a broken down pump, and these were easier to tackle. Jinja issues were as complicated as Kampala's. Most equipment and systems were obsolete. I sent technicians to Jinja and Entebbe – it was so busy there was no weekend

for me (Saturday Sunday were all working days). From the obsolete and decommissioned pumps that were strewn all over the compound in Ggaba, we were able to salvage workable components and assemble eight rejuvenated pumps. After restoring the filters and improvising for chlorination we started pumping water into Kampala network for four intensive months. That is how the city supply was restored in 1982.

The other challenge in Kampala was the state of the pipes. After 10 years of no servicing many were corroded. With increased pressure some of the pipes burst.

Within the first four months we focussed on rehabilitating the booster station because some high altitude parts of Kampala like Kololo and Makindye need that boost for the supplies to reach - water cannot flow upwards without boosting. By February 1983, 60% of water flowing into Kampala from Ggaba was reaching its desired points.

However it was not easy: I vividly recall that on or around the 7th of February the Minister for Water, Max Choudry, rang the acting Managing Director (an Indian-born lawyer called Trion) and asked him "What is happening to water supplies?" MD said, "Oh I don't know what is going on! I was away in the field." "There is this young Chief Engineer running around with girls, he is doing nothing. I don't see him in his office." The Minister was a tough man; he needed to understand I could not be seated in my office because primary goal was to restore water; I was mobile, fixing things. When the accusation was made, the Corporation Secretary, Ezekiel Eriaku, sent workers to find me. They located me with the frighteningly urgent summons: "The Minister needs you!"

I went to see the Minister. That day, the main task was the repair of the line conveying water along Jinja Road, in the centre of Kampala. We had been fixing the Kololo line at the Wampewo Avenue roundabout but also wanted to address the line along Jinja Road to supply Naguru and Nakawa, but were yet to concentrate in that direction. We found challenges with the valves and as we changed them, water splashed all over me – and it was not clean water. At the time my standard dress was jeans and T-shirt, so when the minister's summons came, that is how I was adorned: jeans, T-shirt and lots of dirty water! When I entered the Minister's office, his secretary Mrs. Kaddu, a Jamaican married to a Ugandan, looked me up and down and

said, "Eh who are you?" I told her my name. She said, "What are you looking for?" I said, "I am the Chief Engineer NWSC. I was told that the minister is calling me." She gave me a tough look and rang the minister: "someone has come here calling himself Engineer National Water."

When I opened the door to his office, the minister was similarly taken aback. He said, "Are you the Chief Engineer?" I answered in the affirmative. "And you are so dirty! What are you doing?" I said, "Sir I am working. I am in the field fixing those water pipes taking water to Kololo. We have finished that; we are now working on the line taking water to Naguru, Jinja Road, Nakawa and other areas." Then the Minister said, "Is that why this morning when I was handling my patient dirty water splashed on me from an open pipe?"

I was excited! Dirty water running through in an area (Kololo) that had had no water before implied that something good was happening. I said, "Sir is that true? I am happy, sir, that the water has reached. That is what we are doing; we wanted to restore water to those pipes." He was not getting the point: "But there is dirty water in my house." My excitement was down to the fact that water – dirty or otherwise – coming through the rusted pipes meant that supplies had begun to trickle through. I said, "*We shall fix it.*"

I left his office and rushed back to our then head office of Kampala Water on Sixth Street, and dispatched Kato, our maintenance technician, to the Minister's residence. Kato re-plumbed the place quickly while the Minister, he installed a new water heater, placed a new roof tank on the house, and left everything working. When the Minister Choudry came home in the evening, he found warm water flowing.

After sorting out the Jinja Road Axis we turned our attention to the Kawempe Axis, which was being supplied from a low level. Again I assembled a field team, and by this point our work was beginning to turn NWSC's image around.

A week later I was summoned by the Minister. I did not know that he had sacked the Managing Director and decided to appoint me acting MD. This was February 1983 and I felt the task was too much for me and opted to turn down the offer. The Company Secretary counselled me, saying that he had studied Economics and was a politician, and therefore had an understanding of how governance worked at this level: *"You refuse and they will sack you! And you will not even do your engineering work! You do one thing: accept the posting and we shall find a way to handle it."* I heeded his advice and wrote to the Minister accepting the appointment and delegated the management tasks to the Company Secretary.

At the time management was very poor: there were weekly strikes. There were notorious Union leaders whose self-assignment was intrigue. They would go to the Minister and accuse Management of wanting more cash yet there was no money. At the time NWSC salaries were being paid by Government. When I took up the appointment, I thought it over and determined that I was not going to be in the same boat as the MDs who were being accused and always being fought politically. I called all the Union leaders from Kampala, Jinja and Entebbe, and told them I had a roadmap showing how we could recover, restore water services and address the finances by first ensuring that we bill for the water we supplied. The staff finally realized that I was on their side and eventually they went back with the message: *"This young man, our new MD, is with us! He is on our side; let's help him."* We joined hands with

the workers, and I made it my policy that whenever I planned for bigger technical developments to bring the workers on board and explain to them and make them own it. I would congratulate them when we restored water: *"you see you have made water reach there."* Every month we would declare how much revenue we had collected. I had other challenges, the Finance Department was headed by an S.4 leaver who could not give me much guidance on financial matters. But now we had problems with accounts, and I had to look for accountants. I got some B. Com and ACCA graduates; one of them, Mr. Stephen Wasukira Wanabwa, joined us. I was still concurrently teaching at Makerere, four hours on Tuesdays and doing tutorials with my final year students, looking at their projects, on Wednesdays.

It was when those students completed in March 1983 that I stopped teaching at Makerere, putting all my energy in Water. Of the twenty four students of 1983, I brought eleven to join NWSC, including individuals like Charles Odonga. When they came in, I first cautioned them about the Corporation being managed predominantly by Trade test graduates or S6 leavers. These secured certificates as their main qualifications and had become the managers. Those eleven boosted me but the technicians were really upset. The following year I brought seven more graduate engineers, and a year later I brought another five. We continued building the labour force to over 30 engineers.

The European Union (EU) approached NWSC and they offered to give some technical assistance. I told them our needs were for physical assistance – new pumps, pipes to replace the old ones. They gave us some money to replace our pumps, buying new ones pumps from Germany. These made a lot of



Eng. Hillary Onek in his office in the 1980s

difference. Through Uganda Development Bank (UDB), the government gave us a loan of USD 5 million dollars which was committed to buy pipes, replacing all the leaking ones. The World Bank (WB) took interest in NWSC and gave us some loans of up to 15 million USD for the rehabilitation of our systems. We expanded the water reservoirs at Muyenga and also put up a new reservoir at Naguru hill that would supply to other hills like Ntinda, and Kiwatule. We also boosted beyond Bwaise, to Kawempe and on Entebbe road, Najjankumbi.

By 1988 we had restored supplies in Kampala to almost 80% of the capacity of the water systems. The World Bank went further, adding more money for the Seven Towns Water Project. The situation in all those towns were similar but because they were smaller towns it was easier for us. We hired contractors and we got a competent consultancy firm – GAUFF Engineering and rehabilitated water systems in all those towns.



MD Onek leading Minister Henry Kajura on a tour of the Jinja plant

Even while I was MD I continued to do the functions of Chief Engineer for five years. I really wanted the technical work completed so I continued up to 1988. I brought in people like Wana Etyem – he had been a fellow lecturer with me at Makerere. He wanted to leave the university so I asked him to come join hands with me, and he became General Manager, Technical Services.

Meanwhile we generated engineers from the younger generation, professionals like Silver Mugisha who we posted to manage the Tororo water supply. We posted others to other towns – individuals like Eng. Sam Kayaga, who is now a professor at the University of Loughborough, was posted to Entebbe.

I encouraged them to be innovative, to get solutions to technical problems. I remember when Dr. Mugisha developed a new technique of managing the revenue collection system.

We were caught up in the whirlwind of divestiture – there were discussions on privatising NWSC. Our Minister, Hon. Henry Kajura had been convinced by Biwater, a British company that did a consultancy job in Mbale, that NWSC should be sold to them. I did not agree with this: by 1997 we were remitting government returns and dividends of about UGX 1.2 billion shillings from our profits. At that time no parastatal was giving government money.

We were the most efficient water company south of the Sahara.

We were training managers from Kenya, Tanzania, Zambia, and even from West Africa; the World Bank was sending them to learn from Uganda's experience. We had raised NWSC to international standards: why do you want to sell it to a British company like scrap? I stood my ground I refused. That is the time I realised that politics is a bad game. That's what made me get annoyed and join politics. Let me fight from inside because people don't want the truth. I had to lobby some MPs to make sure NWSC is not among the companies they would sell. My justification was that water is drunk by poorest of the poor, a utility service to propel socio – economic

transformation, a tool for industrial growth and a product that would have to be kept at a low price. I fought it to the cost of my job. After about a year the Minister came to me and said, *"You have many enemies."* I said, *"Where do they come from?"* He replied, *"People are fighting they don't want you. They persuaded the President to remove you."* I said, *"No problem; I have accomplished what I wanted to do, which was restoring water services."* That time NWSC systems were twelve towns including Kasese, Fort Portal, Gulu, and Lira; they had been rehabilitated, they were working. The engineers were doing a good job, and I felt that I could leave. *"Tell the President not to sack me; let me resign quietly,"* was my response to the Minister. With that I went on leave and started my retirement while still quite young.



Training of Ministry of Water and Environment staff at the NWSC Training Centre in Bugolobi.



‘I don’t take instructions from a woman’

Rose Kaggwa was only a few months into her career at NWSC when she was seconded, alongside Eng. Johnson Amayo and two other colleagues, to form the management team that would start Ggaba II. This was November 1992, and Kaggwa had joined the Corporation in May.

The posting to Ggaba was a testing one: after she and Eng. Amayo had been sent to the UK for a six weeks crash programme of training under Water Training International, they returned to begin the hard work. It was into a male-dominated environment that the young Chemist would be plunged.

At the time there was only one lady engineer, Maimuna Nalubega, so Kaggwa’s first visit to Ggaba was an eye opener to the kind of challenges she would face. The first person she met remarked, “By the way, I don’t take instructions from women!” Hmmm! Rose responded: “I am not here as a woman but as the Plant Chemist, so I am going to be your boss.”

She recalls that one of the three strong-headed males pointed out that there had not been any chemist working at the plant before and none was really necessary since no one had died in the city due to the absence of a chemist to treat the water. The team on the ground simply put chemicals in a bucket and poured its contents into the tank. This colleague could not understand why university graduates were now being brought to manage the plant.



Dr Rose Kaggwa, one of the pioneer chemist graduates in NWSC.

“We started with training the staff and putting systems into place. We used manual typewriters in 1993 and we taught ourselves computer. We run the plant against many odds and years later when the EU delegation came for evaluation they were pleasantly surprised. We kept the plant as good as new,” Kaggwa recalled.



Senior Analysts carrying out laboratory analysis

“I served for four years until the MD, Eng. Hilary Onek requested that I be transferred to the Central Laboratory under the Water Quality Section. The section grew and our bosses Charles Luswata and Charles Lwanga later both passed away. Dr. Tom Okurut came in as a Manager and later the section was elevated to a department.”

NWSC became a reference point in the East African region, also attracting students from Great Britain, the Netherlands, Zimbabwe, Zambia, and South America, alongside Ugandans to do research at the Laboratory.

Kaggwa took on other roles like managing the chemicals and reagent store, working as specialists alongside expatriate

consultants on Inner Murchison Bay and Nakivubo Channel Project. She eventually acted in the Manager’s position, which exposed her to other roles. In 1996, she joined IHE Delft the Netherlands in her Masters’ degree studies in Water Quality Management, Limnology & Wetland Ecology. She did her research on the Ggaba 2 wetland, studying the impact of the water treatment sludge on the wetland and receiving water. Her research later led to the construction of the sludge treatment plant at Ggaba.

Kaggwa continued to rise through the ranks, and when NWSC was celebrating 50 years, she was on the senior management team, serving as Director, Business and Scientific Services. She attained her PhD in Environmental Resources Management.

Strengthening Water Quality Management



Tom Okurut joined the NWSC coming from the academia world where he had been a Senior Lecturer in the Chemistry Department of Makerere University. Tom Okia Okurut was in charge of Quality Systems / Assurance, and he recalled his mission as being the strengthening of the water quality management.



Under his leadership, Okurut saw as the main achievements the introduction of measurement systems, the monitoring of water and giving the public assurance of the quality of safe drinking water. “We reduced the amount of chemicals used in water treatment to a third of what it had been, and ensured adherence to the National Standards and WHO guidelines. We treated difficult swampy water, like in Masaka, which has a lot of humic and organic matters. We also introduced, applied and adopted tertiary treatment of waste water through constructed wetlands at Tororo Sewage Works and Masaka. At the Jinja

Sewage Works in Walukuba we had experimental ponds and also biomanipulated the natural wetland to allow for tertiary treatment of the sewage effluent,” Okurut recalled.

Tom was instrumental in setting up a proper water quality management system. He ensured that proper procedures and processes were followed in the laboratories as well as the plants. Area laboratories were set up and equipped. New staff were recruited. During his time, Okurut led the NWSC Water quality team in major projects such as the Lake Victoria Environmental Project. Through these projects, the WQ team began to be involved in research and application to address the emerging challenges. Some of the research findings resulted in modification of the treatment plants. One key milestone was the introduction of constructed wetlands for tertiary treatment of waste water in Tororo and Masaka pioneered by Okurut together with Ssonko Kiwanuka, Eng. Andrew Sekayizzi and Florence Adong. Okurut left NWSC and went on to serve as Executive Secretary Lake Victoria Basin Commission, then in the capacity of Executive Director, National Environment Management Authority (NEMA) and as Executive Director, Climate Change Action East Africa.



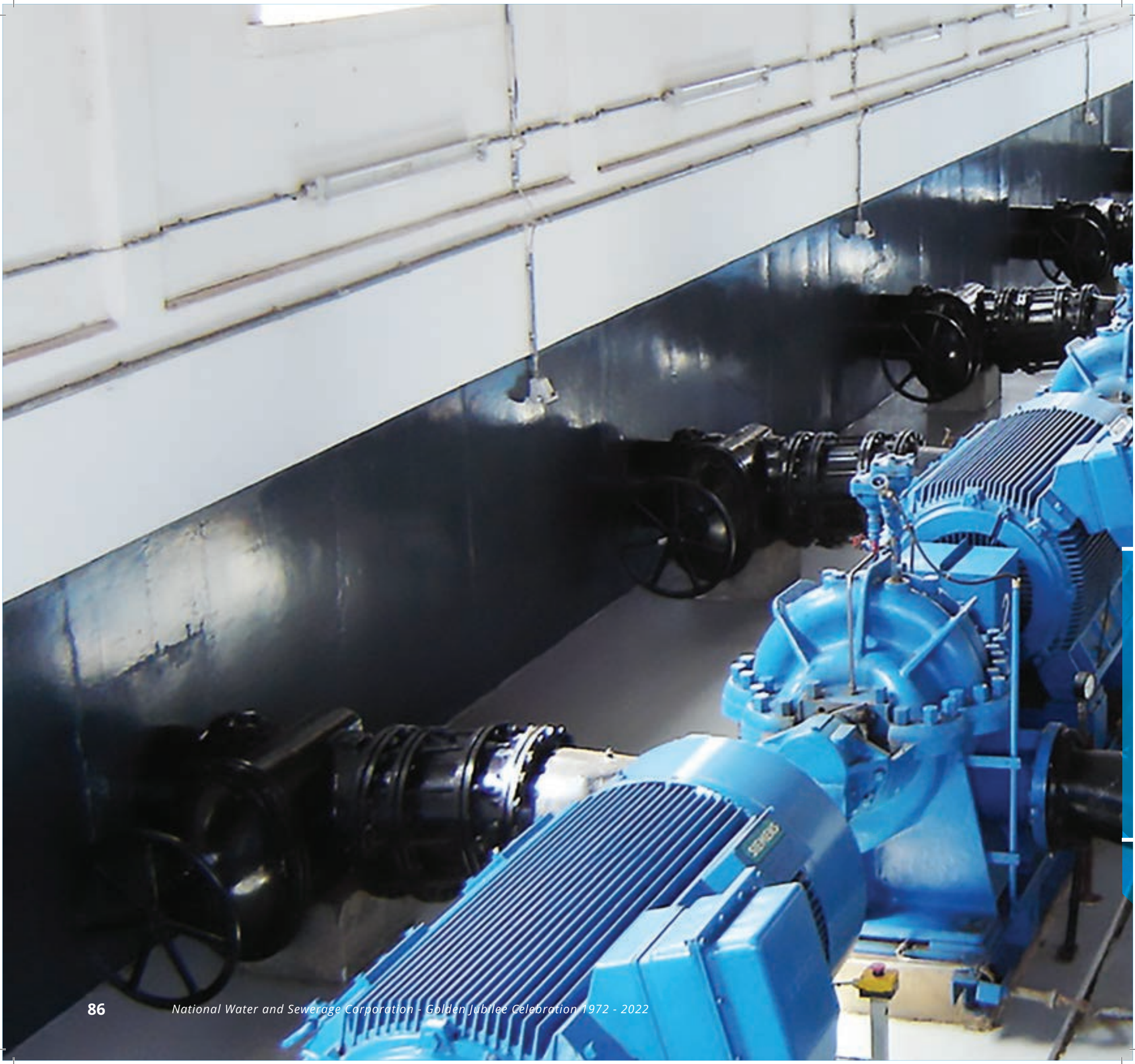


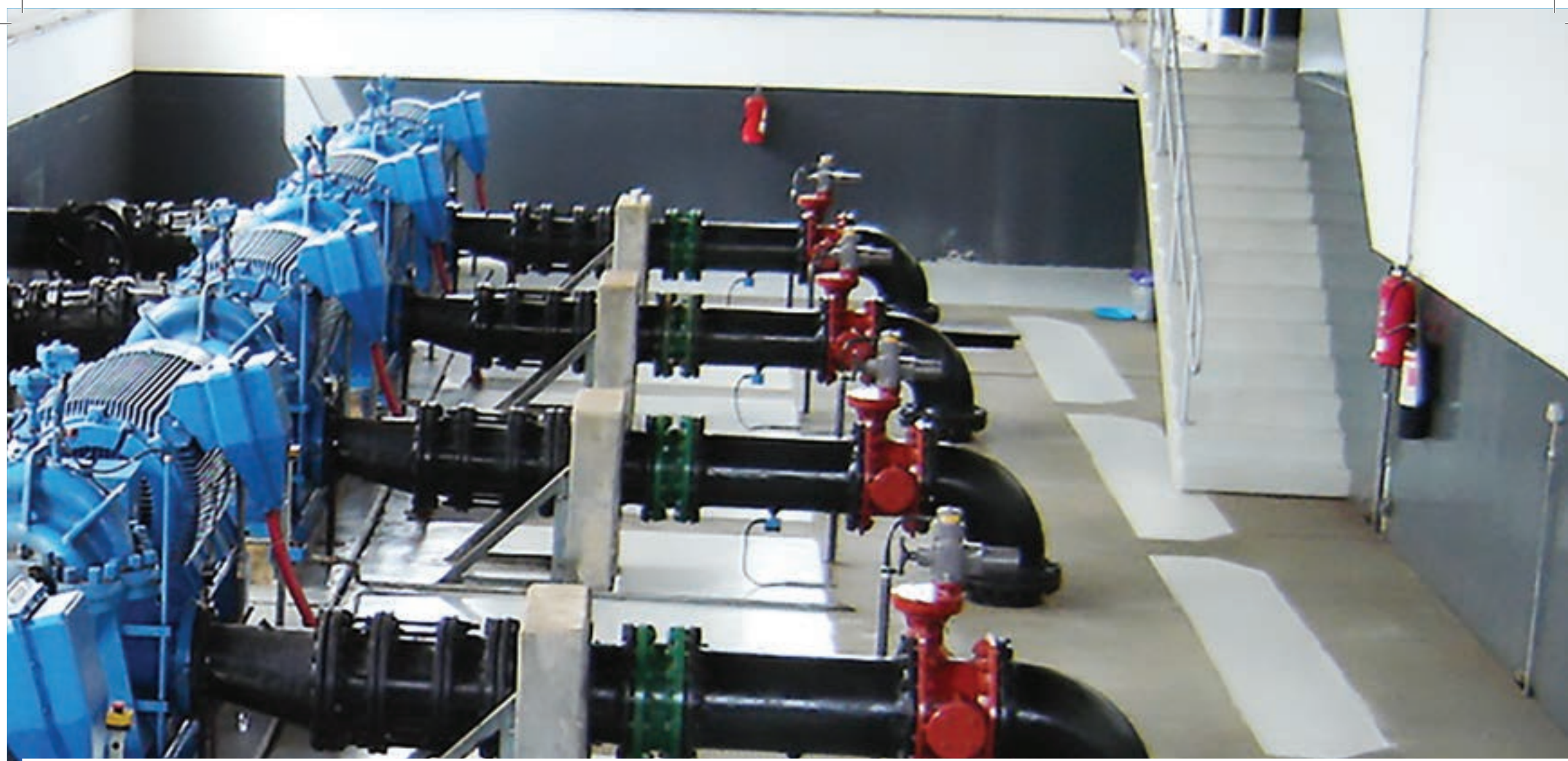
Transformational Breakthroughs

- Kampala Water Network rationalisation
 - Seven Towns Water Supply and Rehabilitation Project
 - Gaba I rehabilitation Gaba 2 construction and commissioning
 - Strategic Recovery Programme
 - Set up of the Training Centre
 - Renewed Support from Donors and Partners
 - Management by Objective
 - Capacity Building through Technical Assistance Towns Water Project
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Impact

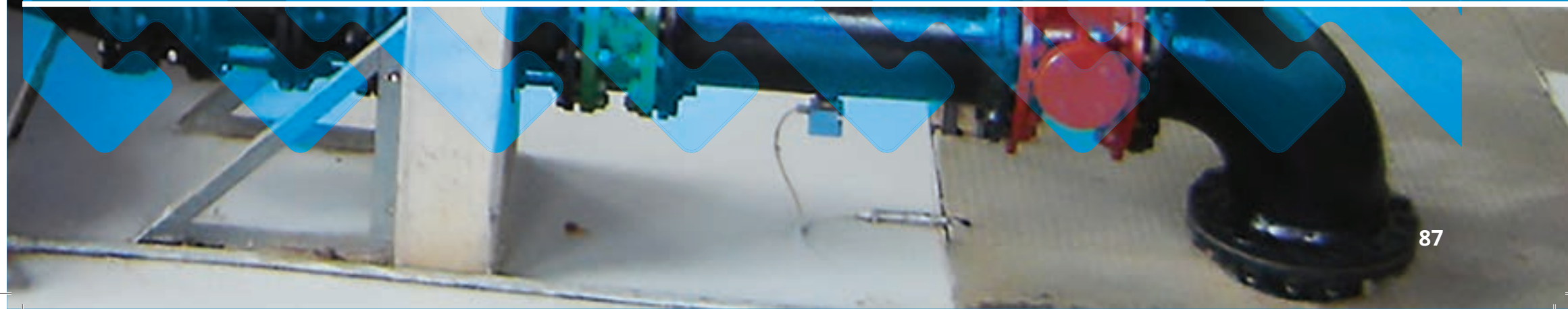
- Improved water production capacity and service reliability
 - Expansion of water and sewerage networks
 - Increased customer base
 - Improved Corporate image and Customer confidence
 - Improved operational efficiency due to enhanced staff skills and capacity
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SECTION 4

Third Decade: Human Resource and Institutional Development (1992-2002)





Second Water Supply Project Flagged off the 1990s

The Second Water Supply Project was approved by the World Bank in 1990 to be the first phase of a program prepared in the late 1980s with assistance from the International Development Agency (IDA), the Bank's lending arm, to improve water supply and sanitation in seven major towns, including Kampala.



Paddy Twesigye, Director Planning and Capital Development

This project was the World Bank's third major involvement in the Water Sector, following the Water Supply Engineering Project approved in 1981, and the Water Supply and Sanitation Rehabilitation Project in 1984. Both were successfully implemented despite the political strife that plagued the country up to the mid-1980s.

The main objectives of this project co-financed by the EEC (European Economic Community), Italy, Austria and GTZ of Germany were to:

- Improve water supply and sewerage services in the seven towns of Kampala, Entebbe, Jinja, Masaka, Mbarara, Tororo and Mbale
- Establish delivery mechanisms for subsequent large scale on-site sanitation program
- Develop NWSC into a financially viable authority
- Strengthen NWSC in all its statutory functions
- Prepare NWSC for taking over water supply and sanitation operations in other towns.

Paddy Twesigye, a graduate engineer who joined NWSC in 1987 was one of the beneficiaries of the capacity building. "The skilling component of the project was so impactful that even today the Corporation is still riding on its benefits. I participated in structuring of the capacity building programme. Our partners included IHE Delft Institute for Water Education, The Netherlands, one of the largest international graduate water education facility in the world which trained more than 150 engineers and Loughborough University, UK (a global centre of excellence in water engineering)" he recalled.

Twesigye and colleague Sonko Kiwanuka were pioneers in the training conducted by IHE where they attained their

Masters degrees. Sonko recalls that “Around 1994, Alex Gisagara, Nelson Okwi and myself were given the chance to attend a management course at Loughborough where we were prepared to begin spearheading commercialisation in the Corporation. We learnt how to use computers and terminologies like “non-revenue water’ started making sense to us.” NWSC has since seconded many of its professionals there .

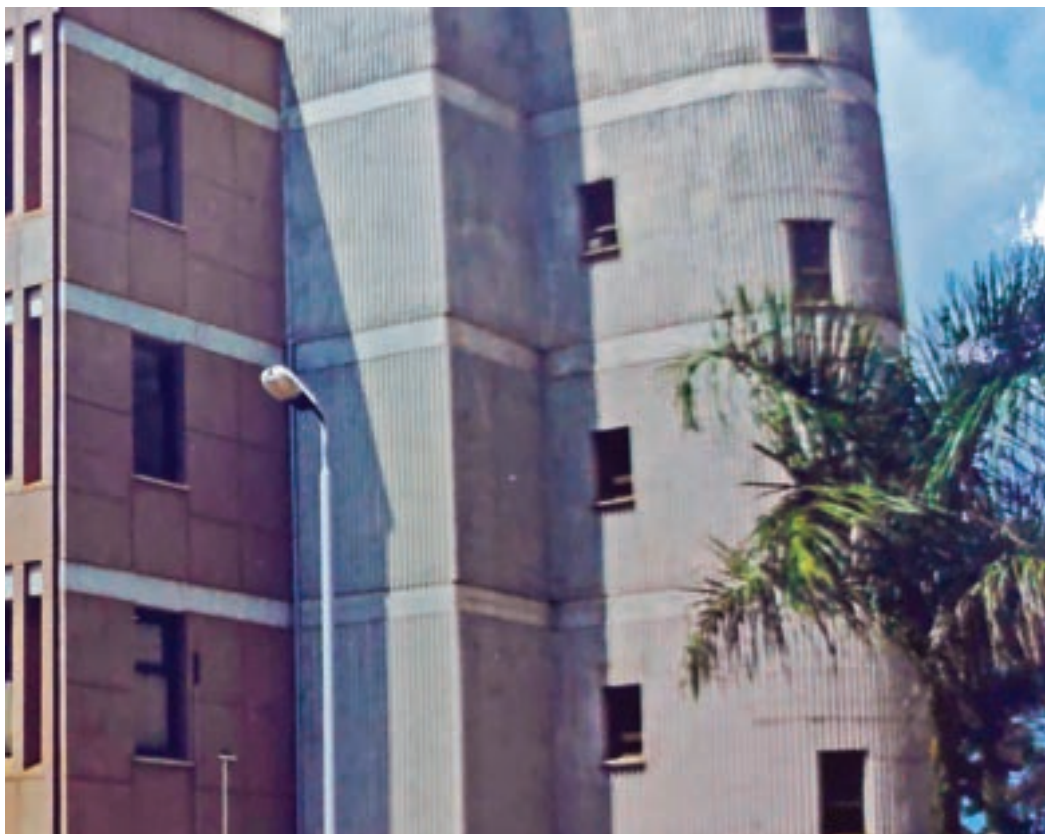
Amos Lapenga joined the NWSC in 1993 as counterpart to a British Training Manager. He was fundamental in the establishment of a substantive Human Resource Department and spearheaded reforms, restructuring and overhauling the manpower. One of the strategies he used was bringing the management and staff to agree with the trade union through a collective bargaining agreement which stipulated that management was free to call for redundancy. In addition there was room for staff to retire voluntarily.” The refreshing of the ranks begun with recruitment of skilled manpower from Uganda College of Commerce in Nebbi, Lira and Nakawa, in the first set of recruitment, there were many more diploma holders than first degree graduates. The second set of recruitment included Mahmood Lutaaya, fondly known by colleagues as ‘Professor’, who had a First Class degree in Mechanical Engineering. In this wave many graduates came in with a minimum educational qualification of Upper Second degree.

The Second Water Supply Project, whose final cost was USD 121 million, increased production, transmission and storage capacity. Actual work began in 1994 and closed on June 30, 1998. By June 1995, the Corporation was operating in nine towns: Kampala, Jinja/Njeru, Entebbe, Tororo, Mbale, Masaka, Mbarara, Gulu, and Lira. By the end of the decade, it had



added on the large urban centres of Fort Portal, Kasese, Kabale, Arua, Bushenyi/Ishaka, and Soroti. The Water Network Rationalization Project was also concluded in 1997.

On February 12, 1994, the Corporation’s new building in Jinja was opened followed by the Mbale office block a year later. Four residential houses were also constructed in Luzira. By the end of 1995, revenue collection efficiency rose from 27% to between 65 and 72%, while non revenue water reduced to 36%. By the end of 1995/96 the expansion of Kampala water supply had seen the construction of a water treatment plant, a pumping station and three new 4,000 m³ reservoirs, and the rehabilitation of Bugolobi Sewerage Works. This was also the decade that witnessed the establishment of the Water Training Centre, the Data Centre and the Central Laboratory and Research Centre.



Above: Fort Portal Water Treatment Plant. Left: The new Jinja Area office block, located on 123 Bell Avenue, was opened on 12 February 1994. Below: The Data Centre

Long-serving MD, Eng. Hilary Onek, left in 1998 and early in 1999, Dr William Muhairwe was appointed in his place. Where the outgoing MD was an engineer, and had seen through a number of infrastructure developments, the new one's

background as an economist was in business management, and his orientation was soon evident. The previous year, Dr David Kakuba had been appointed Director - Management Services / Corporation Secretary.



Strengthening the Legal Framework in the NWSC



National Water and Sewerage Corporation was strengthened through the enactment of the NWSC Statue making it more commercially and financially viable

The NWSC Act CAP 317, Laws of Uganda 2000: In 1995, the Government of Uganda re-established the Corporation under the National Water and Sewerage Corporation Statute. The objectives, powers, and structure of the Corporation were revised with the sole objective of making the Corporation operate on a commercial and financially viable basis (CAP 317 (Part I: Section 4 (4)). The functions of the corporation were management of water resources in ways which are most beneficial to the people of Uganda; provision of water supply services for domestic, stock, horticultural, industrial, commercial, recreational, environmental and other beneficial uses; sewerage services in any area in which it may be appointed to do so under this Act or the Water Act, to the extent and standards that may be determined by its corporate plan, any performance contract, and regulations made under this Act or the Water Act.

The National Water Policy 1999: The Policy was effected from 1999 with emphasis on empowerment of efficiency, reducing the Government burden and increasing private sector participation. Among the boundary conditions for the reform of the water sector was the need to ensure sustainable and economic management of

water as an economic good, respect for management at the appropriate level, and efficiency on investment and commercial operations. This set the framework for the goals and aspirations of the Corporation. The key objectives included improving equity in service delivery, adoption of appropriate technology, environmental sustainability, and financial viability of public

Tariff Reviews/Reforms: In March 2002, Cabinet approved a proposal to index the NWSC tariff to protect it from further erosion, and thus maintain its real value. The indexation allows for an annual adjustment of the tariff against inflation (foreign and domestic), exchange rate and electricity tariff.

- The National Water Policy Document 1999
- The Water Act CAP 152 Laws of Uganda 2000
- The NWSC Act CAP 317 Laws of Uganda 2000
- The PERD Act CAP 98 Laws of Uganda 2000
- The Public Finance Management Act, 2015
- The Environment Act Cap 153
- The Public Health Act Cap 281
- The PERD Act CAP 98 Laws of Uganda 2000
- The Children Statute Cap 56

Witness to NWSC's Legal Transition

Edith Kateete is the Deputy Managing Director in charge of Board Affairs and Management Services, and also works as the Corporation Secretary. She joined NWSC in 1992 as the Legal Officer and has been a witness and an influence to many changes since.



One major development that brought about change was the passing of the 1995 National Water Statute - it was not yet an Act, and it gave NWSC the mandate to operate in all towns or urban areas that are gazetted to it by the Minister. The Corporation had to operate according to the law in a commercial and viable basis. Its survival lay in operating on a commercial basis. Thankfully the board was foresighted

enough to provide an enabling environment. In 1994, NWSC received donor funding for the rehabilitation of water supply services in Kampala, Entebbe, Jinja, Tororo, Mbale, Masaka and Mbarara. The Second Water Supply Project was a major turning point for the Corporation.

I was privileged to have participated in the making of the law that I found was in the process of being promulgated. From that point we started discussions of what it would take to make a corporation work. I participated in making the National Water and Sewerage Act and the Second Water Supply Project, because that time as Legal Officer I had to look at all contracts: I had to participate in land acquisition, property required for all those projects. I would be shuttling back and forth from Mbale to Mbarara such that I would hardly be in office.

The Board has been an enabling factor in NWSC's growth. I have seen four or five Boards come and go; all were very positive and ready to listen to what Management presents to them. They do readily give guidance. In cases of divergent views with Management they would sit and patiently agree on a way forward. They are good partners in connecting us to strategic partners.

The Turn Around

National Water and Sewerage Corporation was strengthened through the enactment of the NWSC Statute making it more commercially and financially viable. From 1998, the NWSC underwent internal reforms that led by Dr. William Muhairwe that resulted in performance improvement.

Dr. William Muhairwe was appointed Managing Director in 1998, taking over from Eng. Hilary Onok. As an Economist Muhairwe stepped into the Corporation at the time that privatisation of the Corporation was threatened as per the World Bank Aide memoire, 1998. He kicked off his tenure by launching what came to be known as the '100 Days Programme' (February–May 1999). A major focus was on improving the corporate image and general managerial performance to address challenges like plant capacity under-utilisation, non-revenue water, billing and collection inefficiencies, and inadequate metering. A task force was formed, chaired by Dr. Charles Wana Etyem, Director of Technical Services who had joined the Corporation in 1989 and was now serving as the Director of Technical Services and de facto Deputy MD, and with Rose Kaggwa serving as secretary. Members were drawn from all the functional departments.

The team identified five core areas for prompt attention. Muhairwe credited Wana as being critical in galvanising the management team to face the challenges head on. He attributed the success of these initiatives to the contribution of star performers like Silver Mugisha, Johnson Amayo, Sonko Kiwanuka and later Jude Mwoga.



Dr William Muhairwe, Managing Director 1998 - 2011

Dr Kakuba who served as Chief Manager Management Services and later as a Board Member, recalls, "the high degree of team work which we developed at top management - a team of purpose. We all educated ourselves on the importance of working as a team.

When I first came, I found the tendency of working in silos but we addressed this through sensitisation, application of management practices and ended up creating a high performance management team.”

While NWSC remained a public entity, the reforms required a more hard-nosed private sector approach, a conscious shift away from the laid back attitudes that typified parastatal organisations at the time. Dr Abdullahi Shire, a Board Member from 1998 to 2005, identified the following as some tenets NWSC adopted from management of private sector entities: NWSC owning most of its offices and new systems in the Finance Department that ensured cash collections were put to proper use and properly accounted for.



Dr. Abdullai Shire (Board Member), Sam Okec (Board Chairman), Miriam Kadaga (Principal Public Relations Officer) and Dr. William Muhairwe (MD)

The Chief Manager Finance and Accounts Jackson Opwonya was instrumental in setting up the finance management systems. As his retirement drew near, Management head hunted for his successor who was later appointed by the Board. Alfred Okot Okidi, who served as Chief Manager, Finance and Accounts before becoming the Deputy MD, Finance and Corporate Strategy, was central to the finance reforms: “We had to do a lot of cleaning of the financial systems and records. We ensured that there were more highly qualified staff, the books of accounts were clean, and the systems were perfect and running. We introduced innovations and built a very motivated and professional team which empowered us to run the finance function efficiently. When the Institute of Certified Public Accountants of Uganda (ICPAU) introduced the award for the best performing entities, NWSC emerged winners for several years.”



Finance Team at work



Dr. William Muhairwe, Managing Director, exchanging MOU with a staff member

The 100 days programme recognised the importance of customer care, and as a first step, the Corporation called a press conference to launch it, spelling out the objectives and expectations. To give it heft, the press conference was attended by all Board Members, senior managers, the task force managing it and Area managers from all NWSC's key upcountry operations.

Out of this special focus, the Corporation evolved a customer-oriented agenda code-named Service and Revenue Enhancement Programme (SEREP), from August 1999–August 2000.

The SEREP objectives were majorly to:

- Ensure reliable, sustainable and increased water production;
- Minimise sewage spillage and maintain international effluent standards and practices;

- Increase service coverage;
- Ensure prompt response to bursts and leaks;
- Render efficient and effective customer service to attain and sustain customer satisfaction and willingness to pay;
- Enhance revenue collection through efficient and accurate billing, as well as expand the customer base and;
- Enhance cost efficiency and achieve cost savings.

The seal of approval for all these efforts came on 31 August 2000, when the Government and NWSC signed a performance contract that would permit the Corporation to function as an autonomous parastatal. 'The Monitor' newspaper noted, on 22 October 2000, that this was "the first parastatal to enjoy this status in recognition for its good performance." NWSC was given operational freedom to pursue its programmes geared at enhancing efficiency, cost-effectiveness and delivery of quality service. Muhairwe noted that the performance contract signified the redefinition of government-NWSC management relationship and commitment by both parties to achieve incremental and sustainable improvement of the delivery of water and sewerage services in the medium and long terms."

The contract allowed NWSC to postpone payment of its debt to the Government until the year 2003 enabling the Corporation to further consolidate its efficiency gains and generate adequate revenues to meet its overheads and at the same time pay off its debt obligations to the Government. NWSC management with effect from 1st October 2000, entered into Area Performance Contracts (APCs) with its subsidiary utilities to increase managerial autonomy, introduce performance incentives and hold the subsidiary operators more accountable.

The APCs were designed to:

- Increase autonomy of Area offices
- Promote commercial orientation of the Area management
- Create result and output-oriented management and performance
- Increase accountability and clear separation of obligation of Area offices and Headquarters
- Introduce and enhance cost-effectiveness; and
- Introduce incentives and disincentives as drivers of performance.

These contracts with NWSC were initially one-year renewable contracts and were first in effect for three consecutive years (2000-2003). One major example, Kampala's first management contract, called KRIP (Kampala Revenue Improvement Project), was for three years and ran 1997-2001 under JBG Gauff, a German consulting firm based in Uganda. The second contract was for two years, 2002-04, under ONDEO Services Uganda Limited (OSUL), a French water firm registered in Uganda.



Entebbe NWSC staff discussing the action plan for their Area Performance Contract



HAS NTARE HILL GROWN TALLER?

Imprisoned for Chlorine Transgressions

As NWSC marked 50 years of operations, Engineers Alex Gisagara and Sonko Kiwanuka commonly regarded as moving encyclopaedias shared recollections of some formal and informal happenings over the decades

Alex Gisagara joined NWSC in 1989, starting out as a young engineer who had been working in a sugar factory in Moshi, Tanzania (1983 – 1989). “I grew through the ranks in the water sector, to the position of Senior Director - Engineering Services, having even acted as Managing Director for one and a half years” he said.

For Ssonko it was natural to join NWSC, having grown up in the shadow of the water utility and its predecessor, Kampala District and Water Board, on Muyenga Hill where his family lived and, as a child, he would use the reservoirs, metallic green tanks up on Tank Hill, as a landmark for his juvenile escapades. “I grew up on the slopes of Muyenga near the stone quarry and Lake Victoria was not that far so when it came to professional life, I chose the speciality of water. Being near the lake influenced my career choice.”

Sonko studied water engineering and sanitation in St. Petersburg, Russia (the old Soviet Union), returning to Uganda in 1989. He secured a job with NWSC in 1990, and his orientation was conducted by Paddy Twesigye, with whom he would become very close.

Within weeks, Sonko would be posted to Mbarara, much to his surprise because when the interview panel asked about his origins and he responded that he was a native of Kampala, he expected that he would be seconded to the capital city.

Mbarara proved to be a strong training ground, what with the town recovering from damage inflicted in two wars – 1979 and 1985/86 – that destroyed the infrastructure. One day, the Headmaster of Ntare School, Mr Francis Kasiragye, called the NWSC office, complaining about failed water supplies. Sonko, together with the Mbarara NWSC Manager, Eng. Peter



Engineers Alex Gisagara (left) and Ssonko Kiwanuka were contemporaries at NWSC. Far right: The pump house at Masaka

Balimunsi and the Water Supplies Superintendent, jumped into a Land Rover and drove to Ntare School. In his office, the Headmaster took issue with the team: *"You people we don't have water."* The NWSC team responded, *"the problem is that you are on a hill; the head is high that is why you don't have water."* To this, Mr Kasiragye asked, *"Are you telling me that Ntare hill has grown taller? Is it higher than when I was here (as a student years earlier)? Now you are telling me that water cannot reach up the hill?! What is this!"*

The NWSC team believed that they could hear a pin drop because the wise Headmaster had caught them pants down. "This is a hill that used to have water and now there is no

water?!" Ntare School is located on a slight elevation less than a kilometre to the east of the city centre, in the suburbs of Kyamugolani and Kamukuzi. Clearly embarrassed by the encounter, the Water team promptly got down to work. One of the effects of the wars and social instability was extensive damage to systems, and the team started checking the valves. Eventually they were able to restore water, much to their relief. This, though, was short-lived. One morning Mr Kasiragye called: *"We are flooding!"* Ntare hill was awash with uncontrollable flow. The school's main tank that had gone without water for years was leaking; corrosion and rust over long periods of no usage had eroded the material, puncturing the tank.

That year, Mbarara was to witness yet more drama, though this was in-house and not related to the customer. Alex Gisagara had been promoted in October 1990 as Area Manager of Mbarara town. In his new role he understood that he had to mitigate situations of negligence of company property, pre-empt accidents, and prevent thefts. One day he established that eight members of the Mbarara office staff had stolen ten drums (barrels) of chlorine, and poured all the hundreds of litres of our critical water purification chemical into the River Rwizi. The purpose? To sell the drums! For how much? 500 UGX each! Eng Alex recounted “I took the eight to the Criminal Investigation Department (CID) at Mbarara Police. They confessed to the theft and we settled on an out-of-court agreement. However, I never informed Head Office in Kampala.

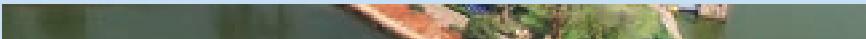
I was summoned to Headquarters for a briefing, and cautioned that I was working for an institution that is 100% public, with set rules and regulations. I hadn’t followed public sector procedures. However, the warning had been noted, and the workers now knew if anyone stole they would be arrested. Elsewhere I was even called a Communist for my methods and background in working in Socialist Tanzania. The impression had nevertheless been made.”

From the end of 1991, Gisagara was promoted to become Area Manager – Kampala. At the time there was no General Manager, added to his responsibilities included that of Regional Operations Manager in charge of Entebbe, Lira, Gulu and Masaka.


Transformational Breakthroughs

- 
- Completion of the 7 Towns Project in Kampala, Entebbe, Jinja, Masaka, Mbale, Mbarara and Tororo and the Kampala Water Network Rationalization Project
 - New Office blocks in Jinja, Mbarara, Masaka and Mbale and opening of the Training Centre
 - Strategic Recovery Programme Implemented : Computerisation of Systems, establishment of Block mapping and GIS unit, Roll out of Corporate Planning and expansion of the Laboratory footprint into additional Areas.
 - Tariff adjustment
 - Performance Contract with Government
 - Private Sector Involvement in revenue improvement
-

Impact

- 
- Increased Asset Base and revenue generation
 - Commencement of the reform process owing to the threat of privatisation
 - Professionalisation of the workforce
 - Reliable bills resulting in increased Customer Trust
 - Reduction in Non revenue water from 68% to 40%
 - Enhanced Water Quality Management
-



A woman with dark skin and hair pulled back, wearing a white short-sleeved uniform jacket with a blue collar and a circular logo on the left chest. The text 'External Services' is printed on the right sleeve. She is looking down at a brochure she is holding. The background is a busy outdoor market with wooden stalls and other people. A blue semi-transparent banner is overlaid on the middle of the image, containing the section title.

SECTION 5

Commercialisation and Performance Contracting (2002-2012)



A DECADE OF INNOVATIVE Business Strategy

NWSC's third decade featured notable transformation and the entrenchment of commercialisation principles in the Corporation, as well as the reinforcement of performance management. In this decade, there was further expansion of geographical coverage, customer orientation and focus.

During this period, Dr. William Muhairwe was the Managing Director up to 2011, when he handed over to Eng. Alex Gisagara, who served in acting capacity for the year 2012.

Internal Reforms

The reforms were two pronged – on the one hand, there were incremental radical reforms to address the organisational culture and human resources management; while on the other there were a series of successive short-term and action-oriented programmes that were consistent with internationally accepted change management principles and practices.

Restructuring

With a view to enhancing productivity, NWSC continued the phased restructuring exercise, which started in the previous decade. Key among the recommendations made by the consultant for this exercise, was a new result-oriented appraisal system; the development of a new organisational structure; and a rightsizing plan. Through a special retirement scheme, some staff members left

NWSC, and by 2002 there were 889 staff, down from 1,860 in 1993. This improved the staff productivity ratio from 35 to 12 employees per thousand connections. At the 50th anniversary celebrations it was down to 5. Staff development and retention remained a high priority over the years, as expressed by Edith Kateete, the Deputy MD Board Affairs and Management Services, and Corporation Secretary for NWSC. "The Corporation supports the staff to further their education and provides them with them study leave during exam time and gurantees they employment on return " Kateete said.

Internally Delegated Area Management Contracts (IDAMCs)

In spite of the performance improvements garnered through the change management programmes, and the transformation of NWSC Areas into business-like enterprises via the use of APCs, the organisation still faced pressure from agitators for privatisation. Management was convinced that NWSC had the capability to manage without direct private sector participation.



Above: Water Minister Dr Ruhakana Rugunda (left) shaking hands with NWSC board chairperson, Sam Labeja Okec, as MD, Dr William Muhairwe looks on.

The concept of commercialisation of NWSC thus conceived and birthed the Internally Delegated Area Management Contracts (IDAMCs).

While they bore much likeness to the APCs, the IDAMCs (which operationalised Performance Contract II, between NWSC and the Government of Uganda, from 2003 to 2006) endowed the Areas with more rights and responsibilities. The IDAMC framework was consolidated by the use of competitive bidding

as a basis for awarding contracts to the operating units. This approach ensured that the best teams were selected to operate specific NWSC service areas. Areas were given a certain level of autonomy but this was set against set targets.

The Kampala Area IDAMC came into force in June 2004 and later in the FY 2005/2006 Zonal Performance Contracts were introduced in Kampala for further decentralisation of operations from the centre.

The Pioneer Female Area Manager

Sylvia Tumuhairwe Alinaitwe was appointed as Area Manager Entebbe in 2002. She shared with us her experience.



Sylvia Tumuhairwe Alinaitwe, Area Manager Entebbe inspects the progress of Rehabilitation of the sewerage ponds

“Entebbe was a water stressed Area with a plant capacity utilised to almost 98% and yet the water was not enough. So we had to do a lot of rationing to meet the demand. I engaged my team by being very innovative in terms of more water available for the customers. We did quite a number of things: at the plant and tanks and we were able to get more water and increased revenues,” Alinaitwe said.” I recall being told that the only hope for more water was to have the old Candy filters repaired. I looked for assistance from static plant. I was told that only a one Charles Odong Otim Workshop Suprintendent at Gaba II was the only saviour. He was a very good mechanic, excellent welder and with his size could easily slide into the

Candy filter. I engaged him and within 2 weeks the job was done”

“Within a short time the performance of the area shot up. Management was extremely pleased with me - I wrote a state-of-the-art business plan that became a benchmark for every Area in the Corporation and for many people who would come visit NWSC. That business plan sold me very highly; I had a good team and we produced tremendous results. We won many performance recognitions and awards. Entebbe started shining and management was extremely happy with me and the Area,” she added.



Dr William Muhairwe, the MD, explaining a point to President Museveni at the commissioning of the Entebbe Water Supply and Sanitation Project in September 2009

Cost Reduction Initiatives

Exercising astute business acumen, Management also sought to reduce costs through the outsourcing of non-core activities such as grass cutting, guard services, the construction and management of kiosks, and the cesspool emptier services. In the same vein, a new transport policy was instituted to control costs, whereby managers were encouraged to purchase and use their own vehicles rather than rely entirely on official transport.

Short term Change Management Programmes

The reinforcement of performance management was an important highlight during this decade. While the use of SMART criteria (setting goals that were Specific, Measurable, Achievable, Relevant, and Time-Bound), was good, Dr. Muhairwe realized that there was still plenty of room for improvement. He led his team in the adaptation of a series of performance management approaches, some of which aimed to enhance group motivation and efficiency. Key among these were Jack Welch's Stretch-out concept, Spencer Johnson's *Who Moved My Cheese*, and the *One Minute Manager* by Kenneth Blanchard and Spencer Johnson.



The intake at Manafwa Water Treatment Plant

Customer Care Initiatives

During the financial year 2005/06, the Corporation established **Customer Call Centers** in Kampala to improve access to customers. It also introduced the **Direct Debit system**, and over-the-counter bill payment system with commercial banks, which simplified the payment of bills through the banking system, as an alternative to going to NWSC cash offices.

In 2008, with the publishing of the **NWSC Customer Charter**, came improvements in customer care; the document outlines the commitments that NWSC makes to the customer, and the

rights and responsibilities of the customer. That year (2008), in an effort to meet and exceed customers' expectations and deliver extra effectiveness in water service delivery, the Corporation launched the **Raving Fans Concept**, drawn from a book by Ken Blanchard and Sheldon Bowles, *Raving Fans: A Revolutionary Approach for Customer Service*. As a result, the handling of customer issues greatly improved.

Infrastructure development

The Corporation's growth was accelerated by key network and water production and infrastructure rehabilitation projects implemented at a time when Dr. Ruhakana Rugunda was







An aerial view of the candy filters at Ggaba 1

the Minister of Water, Lands and Environment (2002-2003). Specifically, Ggaba 1 was revamped to Augment water supply to meet the increasing demand in Kampala while Entebbe, Kabale and Jinja Area Networks were also expanded and rehabilitated. The Kampala Sanitation Master plan was also developed. As NWSC made 50 years, Dr. Rugunda shared a congratulatory message, while advising that in the years ahead there should be improved coordination of government agencies in delivering services to the people.

“My view is that it is okay for the Ministry of Health to focus on sanitation issues and for NWSC to focus on water issues. However, the two are organically linked. Since we are one Government, we should optimise coordination and harmonisation, and develop a system for proper monitoring to avoid duplication of activities. “Services to the people is most critical” he said.

ISO Certification (9001:2000)

NWSC started implementing Quality Management System (QMS) according to International Standard Organization (ISO) as a management tool in 2003. The idea of ISO certification started on a pilot basis in Jinja and Tororo Areas. By 2010, 15 Areas were ISO Certified by OQS/Quality Austria, an accredited certification body.

Checkers System

To enhance implementation and consolidation of the IDAMCs, management rolled out the “checkers system”. This involved regular monitoring of processes and systems performance, to assess adherence and compliance to set work standards and policies. Gaps identified through the process would be promptly addressed and corrective measures taken.

Adoption of ICT Systems

In the FY 2003/04, the Corporation realized one of its prime objectives of implementing an effective computerized system for increased efficiency. The following systems were established, resulting into improvements in collections, fast information processing, timely distribution and effective use of information within the Corporation;

- A Wide Area Network (WAN) and Local Area Networks (LANs) in all Area offices
- Establishment of a modern computer server room at Head office
- Efficient inter-office and external corporate email communication system using Lotus Notes
- Substantial increase in computer workstations and accessories for Headquarters and Area office staff.
- Establishment of autonomous billing centres, and online cash receipting in all Area offices.
- Improvements in the financial and billing systems, including iScala and CUSTIMA. The billing system was later upgraded to a more robust and user-friendly system, "HI Affinity" in 2006.
- Computerisation of central procurement.
- Implementation of modern integrated telephone exchange facilities.
- Set up a Virtual Private Network (VPN) Infrastructure, that allows staff to access corporate IT/IS systems remotely.
- Implemented an electronic Document Management System based on IBM Lotus Quicker, as a central depository for key corporation document.



Above: Onspot billing

Below: Supervisory Control and Data Acquisition (SCADA) centre in Ggaba water works.



Staff at work in the computer room, 1990s

New Water Connection Policy

The Minister of Water, Lands and Environment gazetted a new policy in 2005, with the objective of addressing the high level of water losses, and the need for accelerated service coverage, with a special emphasis on serving the urban poor. The Policy provision for the free connection of all customers within a radius of 50 meters from the NWSC mains aimed to reduce water losses, and accelerate service coverage and service to the urban poor. In the same spirit, the simplified sewerage connection policy aimed to improve piped sewerage coverage, capacity utilisation of sewage treatment ponds and plants and conservation of the environment.

After one year of its implementation, this policy had had the effect of doubling the rate of connections of new subscribers

from an average of 1,000 to 2,000 per month. Noting the increase of NWSC's reach, the former Permanent Secretary at the Ministry of Water and Environment, David O.O Obong, applauded the role of vocational training institutions.

"The skills required to tackle the many water and sanitation issues faced, it is clear that NWSC has several technical staff most of these don't necessarily come from universities, but from vocational training schools" Obong said.

"Since more cities and towns are coming up in the country, and the population is on the increase, the demand for water will continue to rise. Water is Life and as such NWSC should work with the MWE to make sure they avail clean and safe drinking water. This also means that NWSC should have more technical staff to support this goal" Obong said.

Tariff Review and Indexation

In a bid to attract more consumers, the water tariffs were revised downwards and restructured as follows; the new connection fee reduced by more than 50% for domestic consumers (from UGX 125,000 to UGX 50,000); reconnection fee reduced by 74% from UGX 45,000 to UGX 10,000; minimum charges were eliminated; and a fixed service charge was introduced. As a result, the number of new connections almost doubled.

In March 2002, Tariff Indexation was approved by Cabinet to protect the tariff against further erosion from local and foreign inflation, exchange rates, and electricity costs – and enable it

maintain its real value. This reduced the tariff for large water based industries.

Urban Poor Initiatives

During the FY 2007/08, Management undertook various initiatives to extend services to the urban poor. These included the implementation of the Ndeeba-Kisenyi Pilot Project, which entailed the promotion of yard tap connections; promotion of pre-paid meter technologies; and the provision of communal VIP toilets. Other initiatives to serve the poor included the Global Output Based Aid project (GPOBA), Kagugube Community Project, and the establishment of an Urban Pro-Poor Unit in NWSC (UPPU) to coordinate the programme in 2009/10.




NWSC Prepaid Meter Kiosk in Kisenyi.



'DON'T TAKE A LIMPING COW TO THE MARKET' -

How privatisation bogey was defeated



The Second Water Supply Project was approved by the World Bank in 1990 as the first phase of a program prepared in the late 1980s with assistance from the International Development Agency (IDA), the Bank's lending arm, to improve water supply and sanitation in seven major towns, including Kampala.

The Government of Uganda started Public Enterprise (PE) sector reforms and privatisation in 1992 when there were over 150 parastatals (government-owned enterprises) in all sectors of the economy, employing over 30,000 people, accounting for 25% of formal employment, and generating about 10% of gross domestic product (GDP).

From the early 1990s when the divestiture program began, right up to June 2011, the Government divested itself of interests in 134 public enterprises. Ten methods of divestiture have been used: Sale of Assets, Share Sale, Joint Venture, Pre-Emptive Rights, Initial Public Offering (IPO), Concession, Auction, Management Buyout (MBO), Debt-Equity Swap, and Repossession.

For a long time from the mid-1990s, NWSC was a candidate for divestiture, being characterised by many of the hallmarks that

qualified public enterprises for private ownership: debt crisis, tax arrears, and cost overruns.

The main legal document giving direction to the privatisation process was the Public Enterprise Reform and Divestiture (PERD) statute, which came into force in October 1993. The PERD statute listed all the existing public enterprises (107 total) and divided them into five classes. Out of 107 enterprises, 85 percent (i.e., 90 enterprises) were to be privatized by the end of 1997. NWSC was listed in Class B, in which the assets were to remain vested in government because the water and sewerage services were considered too sensitive for full divestiture. This category permitted only limited private sector participation, aimed principally at stemming the haemorrhage of government resources, while bringing in the management discipline that typified the private sector.





In 1997, the Government, through the Ministry of Finance, directed the Water ministry to prepare for private sector participation. Efforts got underway with the appointment of a South African consulting firm to advise on modalities. The consultancy fee, USD1 million, was to be drawn from NWSC's finances, dipping into a World Bank-funded project. Not very keen on divestiture, NWSC Management under Dr William Muhairwe had, anyhow, already begun instituting internal reforms which started to bear fruit in form of the benefits of the aforementioned 100 Days Programme. The State Minister for Water, Mr Othieno Akika, commended the reforms when he officiated at the conclusion of the 100 Days. One of the key reforms, which helped to stabilise the Corporation's finances and stemmed the calls for wholesale divestiture, was a revision of tariffs paid by consumers for the supply of water. In April 2002, the Minister of Water and Environment, Dr. Ruhakana Rugunda, issued a tariff instrument amending the general water rates.

General efficiency was also enhanced when, in 1999, the Government decentralised the procurement function from the contract committees of line ministries and, in January 2002, NWSC was granted autonomous procurement status. The freezing in the year 2000 of NWSC's debts by Government also stabilised the Corporation's finances, because it meant that it was not obliged to service its debts for a while, culminating in the conversion of NWSC's long-term debt into equity in February 2008. The Corporation's finances continued to improve when the hand of Mr Emmanuel Tumusiime-Mutebile, the Permanent Secretary of the ministry of Finance and Secretary to the Treasury, impressed upon many Government debtors to clear their obligations to the Corporation, although the initial aim was to make NWSC healthier and, therefore, more attractive for divestiture. Dr Muhairwe recalled another unlikely supporter, Mr Keith Muhakanizi, the Director of Economic



The reservoir tanks in Arua

Affairs at the ministry who, Muhairwe says in his book 'Making Public Enterprises Work', was "a cattle farmer, (and) argued along the lines of those who believed in 'fattening the cow first before selling it'."

Muhairwe himself had been recruited to prepare NWSC for privatisation. Unlike his predecessors he was not an engineer – he came from the private sector, but just as fundamentally, his family foundations shaped his thinking such that he looked at privatisation through an unconventional pair of lenses, a little similar to Muhakanizi's. "I cannot take a limping cow to the market. I come from a farmer's background where we rear goats and cows. My father used to tell me that before you take your cows to the market, first fatten them. Then you will get a good price. So we needed to fatten the bull called NWSC."

Paradoxically, it is the very fattening that saved NWSC from divestiture. Muhairwe recalled on the eve of 50 years: "After two or three years when we had built on the five thematic areas of the 100 day programme: producing water, making the customer feel wanted, not wasting the money, Government, and even the donors, changed their mind and decided not to sell. Why should we sell the cow that is giving you milk, that is sustaining you very well; it is looking very well! That is how NWSC was saved from privatisation. If you really want to avoid such scenarios just perform. Once you perform, you will get supporters: government will support you, development partners will support you, staff will bear with you, the customers/public will never want something good to go out of their hands." The bogey of privatisation was, not surprisingly, quite unpopular within the Corporation staff. Dr Muhairwe recalled: "The staff were worried - privatisation was synonymous with job loss,

misery, selling of the family treasure, and I was at the centre of it. All our 2,000 staff were asking where we were going to leave them. I was caught between the Government, who wanted to get a premium on the fattened cow, and the World Bank. At that time there were no people willing to buy a company that was making losses.”

Eng. Alex Gisagara, a long-time employee who at the Corporation's 50th anniversary was serving as Senior Director – Engineering Services, spoke for many of his colleagues when he reflected: “I want to thank Parliament for declining to endorse NWSC's privatisation. (Member of Parliament) Ken Lukyamuzi was very hot on this issue when he said during a debate, *'you cannot privatise water and sanitation. The businessmen will come and swallow us.'* What would happen to the total ownership of assets?”

Prof. Ephraim Kamuntu, who was Minister for Water 2012-2015, sums it up, “it is pleasing that NWSC survived the divestiture crusade. Some of us feel you have performed (and did not warrant being privatised).” In the end, it was the fattening of the cow that kept it out of the cattle market. It continues to prosper and graze freely in the safe hands of public ownership.




Transformational Breakthroughs

- Performance Contracting (IDAMCs and ZPCs) enhancing decentralisation of service delivery and operational efficiency
- New water and sewerage connection policy
- ISO Certification
- Introduction of new slogan “Customer is the reason we exist”
- Strengthening of low income Community service provision
- Tariff review and indexation
- Adoption of on line/e payments
- Launch of External Services and South to South Partnerships
- Construction of state of the art Training Centre

Impact


- Improved Corporation finances as a result of freezing of NWSC debt by Government
- Doubling of Customer base and revenues
- Enhanced Customer confidence and Corporate image
- Enhanced operational efficiency due to decentralised operations
- International recognition and emergence of NWSC as a model utility in Africa.





SECTION 6

Accelerating Infrastructure Development and Water for All (2012-2022)





BRIDGING PAST PRESENT AND FUTURE (Rapid Infrastructure Expansion)

Dr. Eng. Silver Mugisha joined NWSC in 1994 as a young graduate engineer, rising through the ranks to the top position of Managing Director in 2013 and is the incumbent MD as the Corporation marks 50 years of existence in December 2022. He shares a synopsis of his journey.



Left: Dr. Eng. Mugisha addressing at a stakeholder engagement in Kanungu. Behind him is Eng. Alex Gisagara and in front is Minister Mwesigwa Rukutana and MP Gerald Karuhanga. Above: The MD in his office

When I joined our revenue collections amounted to a monthly average of UGX 1.2 billion per month and we would celebrate. Twenty eight years later we average UGX 47 billion per month. Back in the 1990s, staff did not understand performance-based management and work; there was, no measurement of performance but now performance management and indicators are the order of the day.

When I first joined we were on the verge of being privatised. A lot of money had been injected through donors and there was little hope of improvement in the late 1990s. The changing of leaders was haphazard, and we had an aggressive workers'

union that was always fighting Management, threatening actions like dumping sewage at the doorsteps of Head Office. There was the period of aggressive infrastructure expansion, followed by aggressive commercialisation under Dr. Muhairwe's leadership between 1998 - 2001. Right now NWSC is focussed on aggressive geographical expansion. I am happy to be a part of an NWSC that has metamorphosed into different stages of development.

When I came in, I found a situation of great emphasis on profits and not so much on service delivery or on reaching the people of Uganda. I was therefore motivated to service



President Museveni with delegates at the African Water Association (AfWA) International Congress and Exhibition in Kampala, February 2020.

delivery expansion. Whenever we went to Parliament many Parliamentarians did not recognise 'National Water' because services did not reach their part of the nation! We evolved a five-year strategic direction that emphasised geographical expansion. We managed a paradigm shift from 23 towns to 263, a growth from 4 million to 18 million Ugandan consumers, and a rise in the number of water connections from 270, 000 to 900,000. This, I believe, is a balanced approach of profits and service delivery.

The assets under management have grown from UGX 650 billion to UGX 4.1 trillion, and the network has increased from 6,500 kilometres to 22,000 kilometres. NWSC is not

created to serve "all Ugandans" as such; rather to give piped water to the urban centres of Uganda and their immediate neighbourhoods. Thus, our target population is not that of Uganda but the people in those areas where we are supposed to be. We tell the MPs that we operate under the law formulated by themselves which mandates. The rural neighbourhoods are supplied by the Rural Water Department of the Ministry of Water and Environment. There's a lot of coordination between us and what the Ministry does, although it is in our interest that even in rural areas if it is possible, NWSC can extend piped water. That is why the 18 million population served translates into a coverage of about 78% – 80%, meaning that the target population of 25 million largely



State minister for Environment, Beatrice Anywar (in yellow), MD Dr. Eng. Mugisha, Deputy MD Eng. Johnson Amayo, and Permanent Secretary Alfred Okot Okidi at the France Water Team stall at the AfWA Congress, February 2020



in the urban areas out of the 45 million, which is the national population.

We have moved much faster on the water side and a little bit slower on the sewage part of our operations. In the capital city Kampala, there is a lot of infrastructure to reach many people but the sewage coverage is still low which is the case in many municipalities. Our sewerage footprint is still low with many towns without sewage systems. It is about what comes first. That is the guiding principle. Let us have water first and let people use onsite sanitation or septic tanks where ever they are. The challenge though is in the central business districts of these urban centres where they cannot sink pit latrines or septic tanks, for this could pollute the surrounding water sources. That is a challenge we are still addressing as we make significant strides on supplying water. We have developed a five-year Sanitation Investment plan and are seeing how best it can be supported and implemented.

IT Innovation and Creativity have been at the centre of the corporation's reforms. In the last ten years we have had significant reforms in IT, becoming one of the institutions that is highly computerised. This started with my predecessors Dr. Muhairwe and Eng. Hilary Onok and now we have a billing system which is developed and implemented by our own staff. We have created our own e-procurement system, e-inventory system, e-MTOs (medical treatment orders) that are digitalised and on-line, as well as an e-water quality information system. We have computerised the finance system and are converting billing to e-billing. We also have an e-Training Information Management system and are developing an e-platform to enhance learning and training activities.

To **enhance operational efficiency**, we have made major reforms and have a highly regionalised model. Areas have the autonomy to do their own things at their own level. The system is somehow integrated with Headquarters, but the Areas take their own decisions. We have four regions: Northern, Eastern, Western & South Western, and Central, as well as Kampala, which covers the city and districts of Kampala, Wakiso and Mukono. Capacity has been developed for people to design and implement their own projects and this has tended to facilitate service delivery in the corporation. In stakeholder engagement there is a much better and predictable system of engaging at the district level with local leaders, LC 5 chairmen, Resident District Commissioners, Chief Administrative Officers, and members of Parliament. We also carry out stakeholder satisfaction surveys, have introduced school water and sanitation clubs (SWAS) to educate young people on water and environment issues. The Young Professionals Club at NWSC provides a link with the youth outside the Corporation in sanitation and environment; we started by planting one million trees. We are now on the 10 million tree planting campaign. Environmental protection is central to our social corporate responsibility, though it is not our core mandate. We simply have to be in the business of preserving where water comes from by protecting the environment, planting trees, spending some of our budgets in the protection of wetlands and water catchment areas.

Staff engagement includes a regular staff satisfaction survey where a number of questions are asked. There is also the digitalised town-hall, where an issue that needs to be cascaded to the institution is crafted in a message and sent to all staff to be conversant with what management is thinking.



MD Dr. Eng. Mugisha, minister Prof. Ephraim Kamuntu and Deputy MD Eng. Johnson Amayo showing President Museveni around at the commissioning of the Lubigi Waste Water Treatment Plant,

Internationally, the External Services, a consultancy unit through which we deliver consultancies to other utilities in the region and beyond, has grown. The International Resource Centre (IREC) houses the Director of Business and Scientific Services and her staff. They are in charge of training, external services, and hosting international guests. Constructed about 12 years ago out of earnings from offering external services, the centre cost us about UGX 5 billion, including furnishing.

NWSC works with regional organisations, the main one being the International Water Association IWA. I have been on the board IWA for four years, which keeps NWSC on the international scene. Going into the Jubilee celebrations, a senior manager, Dr. Rose Kaggwa, sits on the IWA board. We

are also on the African Water Association (AfWA), where I am president, and served as head of the Scientific Council for four years.

A lot has been done infrastructure financing. The water and sanitation system for Kampala needed more funding, which was mobilised. The AfDB, AfD and KfW are funding work on the sewage system in Kampala. A huge sewage treatment plant, one of the most modern in the region, has been constructed at Bugolobi complemented by the Lubigi treatment plant and another under construction at Nalukolongo.

NWSC has organised funding for the South western towns of Mbarara, using water from River Kagera to serve Isingiro,



A young girl planting tree seedlings. NWSC plants trees next to sewage plants to offset emissions as part of environmental protection

all the way to Mbarara, and more services for Masaka, using water from Lake Victoria. We are also mobilising funding with DANIDA, the Danish Development Agency, for the Wakiso Water Supply Improvement Project. The Corporation is working also working with the World Bank in Gulu, Adjumani, Mbale, and Arua while KfW is playing a role in Gulu. Most importantly though is non-donor financing. We have done much more with government than with donors. We have the 100% service acceleration SCAP 100 which is financed both by government and NWSC. Government puts UGX 30 billion annually into that project and NWSC commits UGX 42 billion That project has helped us to reach many more Ugandans including rural areas where donor financing could ordinarily not have applied.

NWSC has worked with banks to access local financing, enabling delivery of services to Kapeeka, Sembabule and Parongo in Nebbi district on our own. We have been able to expand the systems in Lira and to construct offices in Bushenyi, Kasese, Iganga, Lira and Arua. We are starting to construct a resource center in Lira and plan to construct water systems for Kanungu, Lyantonde, Bushenyi, Kyankwanzi, Moroto, Tororo, and Soroti. Hoima has a water supply improvement project and have concluded a project for Fort portal.

Projecting into the future, I see a financially stable institution, self-financing with 100% coverage. That is the frontier we are working to cross. I see portfolio of assets from UGX 4.1 trillion today to more than UGX 30 trillion This implies that NWSC would have reached a business level where it is serving all Ugandans.



ACCELERATED SERVICE DELIVERY TO ALL



The decade 2012 to 2022 was headlined by the acceleration of services, the rapid geographical expansion and regionalisation, innovative financing and infrastructure development, workforce development and skilling, the ICT revolution and digitalisation of key processes, stakeholder engagement, resilience of NWSC amidst the global pandemics and economic crisis. This decade was led by Dr. Eng. Silver Mugisha as Managing Director from 2013.



Strategic Anchorage

Reaching as many Ugandans as possible was at the heart of NWSC operations for the decade. The strategic focus emphasized geographical expansion in alignment with the following:

- United Nations Sustainable Development Goals (SDGs) agenda 2030 as SDG # 6 – to ensure availability and sustainable management of water and sanitation for all.
- Vision 2040, ‘A Transformed Ugandan Society From a Peasant to a Modern and Prosperous Country. Within 30 Years’, there is a need to improve the health, sanitation and hygiene of the populace; improve water security and effects of floods and droughts; put in place the necessary infrastructure to support re-use of water.
- The NRM Manifesto 2021–2026 prioritises job and wealth creation, delivering education, health, and water, ensuring justice and equity, protecting life and prosperity, and achieving economic and political integration in a bid of ‘securing the future’.

Strategic Direction

Between 2013 and 2020 the NWSC Board approved a number of strategies aimed at continuous performance improvement using the Corporate Plans 2015-2018 and 2018-2021; the Five - Year Strategic Directions 2013-2018 and 2016-2021; the Infrastructure Service Delivery Improvement Program (ISDP); and Water Supply Stabilisation Programmes (2014 - 2020). Eng. Christopher Ebal, the Board Chairperson from 2013-2020 recalled, “Government wanted water in all urban areas, and believed water was a human right. We benchmarked in Singapore, France, Senegal and used technologies that save water.” A number of quick-win investments were undertaken,

including the upgrading and rehabilitation of water treatment facilities, ground water exploration and development, solar energy utilisation, installation of additional water storage facilities, installation of back-up power systems, and the upgrading of the network and rationalisation in various NWSC areas. Eng. Ebal recollected: “In Katosi a modern way of filtering water was adopted after the Board visited Macau in China; in Fort Portal, Kisoro and at Kiruddu Hospital in Kampala, compact sewage treatment systems were installed” said Eng. Ebal.

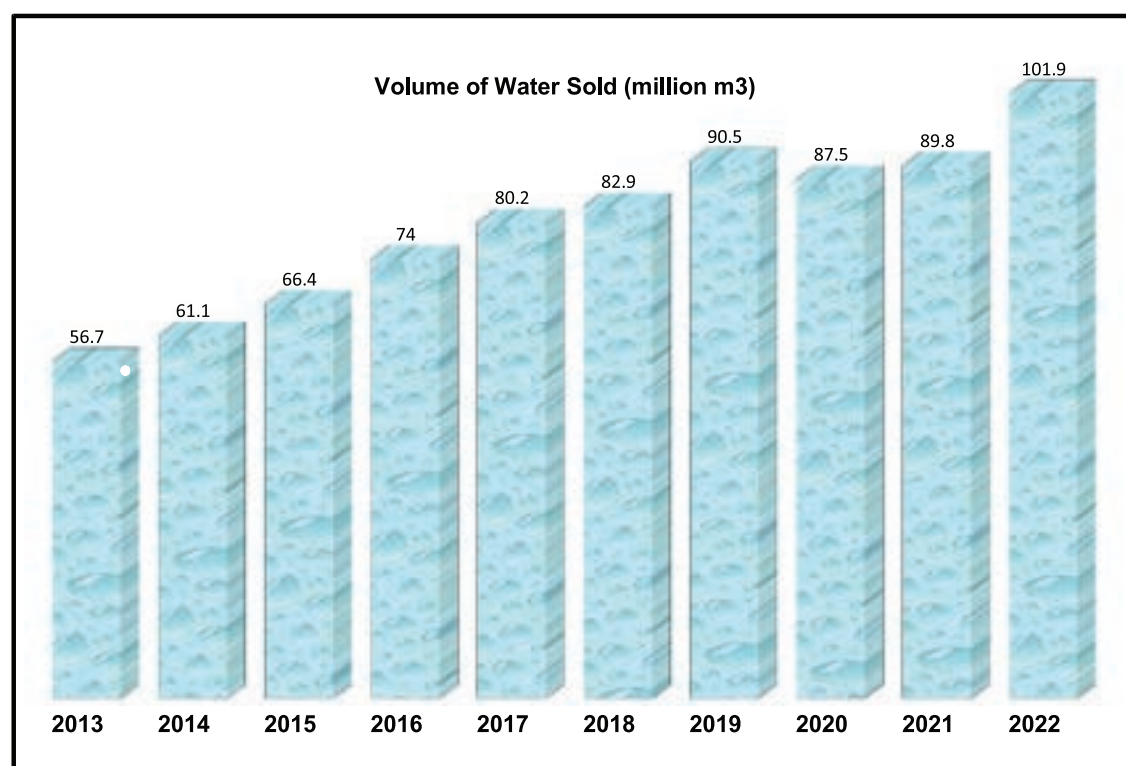
Performance Improvement Programmes implemented over 2017 – 2020 included WALOP – Water Loss Prevention (Kampala Water), RESAIL – Reduce Suppressed Accounts, Arrears and Illegal Use (Entebbe), PURGE – Proactive Undertaking for Revenue Generation Enhancement (Mbale), SNARP – Suppressed Accounts, NRW and Arrears Reduction Programme (Jinja).

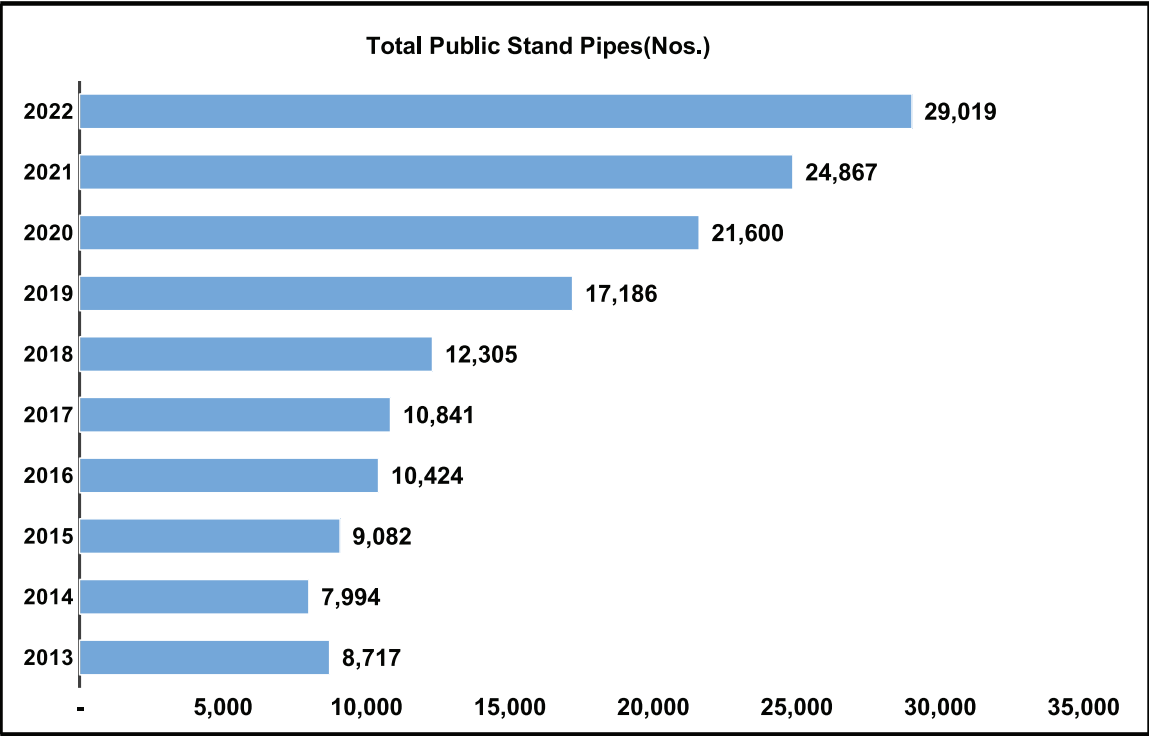
The Board championed the establishment of the Utility Court by the Judiciary in May 2017. Its mandate is to handle cases related to water theft, vandalism of water installations, and similar cases in other utilities. These initiatives resulted in reduced NRW (non-revenue water) and increased sales in some areas, with water sales increasing from 56.7 million cubic units (cum) in FY 2012/13 to 87.5 million cum in 2019/20 and to 89.8 million cum in FY 2021/2022. Services were markedly improved as more customers came on board.

Former Water and Environment Minister Prof. Ephraim Kamuntu reminisced, “We dug many boreholes as part of the drive and we embarked on water gravity schemes. We also tried solar water pumping as well as electricity pumping.”



President Museveni collecting the first bucket at the launching of the Koboko Water Treatment Plant





There was an intensification of the pro-poor connections Public Stand Posts PSPs: the Corporation increased the number of PSPs from 9,024 in 2015/16 to 25,598 in FY 2020/21 in the urban and peri-urban locations. In addition, the tariff for PSPs was reduced by 34%, from UGX 38 to UGX 25 per 20-litre jerry can. The reduction was intended to increase affordability and willingness to pay. Over 100 public toilets were constructed in various parts of the country to improve sanitation in the urban poor communities.

Reforms and Restructuring

Corporate Governance and leadership. A restructuring process that resulted into three business streams, namely Finance and Corporate Strategy, Technical Services, and Board Affairs and Management Services. These were further disaggregated into eight Directorates, 16) Departments and 44 Units/Functional Roles. In addition, new positions of Deputy Managing Directors and Directors were adopted to head the Business Streams and Directorates respectively. Furthermore, four regions were created; Kampala Metropolitan region,

Central region, Eastern and North-Eastern Region, and Western and South-Western region. The regionalisation took cognisance of the need to ensure that the regions and constituent areas adhere to the minimum economies of scale, revenues and break-even status. By 2022 there were five regions after North and East were split.

Performance Contracting. In July 2019 NWSC adopted the Area Results and Service Delivery Enhancement (ARISE) Performance Contracts in a bid to grow creatively in service coverage, supply stabilisation, and customer engagement.

ICT Enhancement. Home-grown ICT systems and solutions were developed to support the Corporation’s day-to-day functions. These included: e-water payment platform, on spot billing, pre-paid water meter system, e-new connection; customer relationship module, computerised maintenance management system, water quality information management system to mention but a few.

Water Source Protection. NWSC was committed to protecting water sources and restoring the environment. From October 2017 to June 2019 a three-year tree planting campaign took place, and one million trees planted along the banks and shoreline of the catchment areas. In the next decade 10 million trees are targeted. Another 18,000 were to be planted in the Katosi water catchment area by NWSC and National Forestry Authority (NFA) under the Go Green campaign. Young Water Professionals planted trees in schools with seedlings provided by NFA. On 8th May, 2021 St. Leo’s College



President Museveni greeting NWSC Board Chairperson Eng. Dr. Christopher Ebal at the commissioning of Ggaba Namasuba Project, January 2017. Behind the President is Minister Water and Environment, Sam Cheptoris. Looking on are (l-r) EU Ambassador Kristin Schmidt, French Ambassador Stephanie Rivoal and a German representative.

Kyegobe launched a SWAS club and jointly with Buhinga Primary School planted close to 6,000 trees. In the future NWSC planned to dedicate one tree planting day annually.

Water Loss Protection Unit (WALOPU). In order to curb illegal use WALOPU was established in Kampala. Special attention has been made to water replacement with a target of 55,000 meters to be replaced.



Infrastructure development

Eng. Johnson Amayo, the Deputy Managing Director, Technical Services outlined NWSC's commitment to infrastructure development. Having joined the NWSC in 1991 he was worked in various positions and has spent the last years at the helm of projects and capital development. He emphasized the critical role of infrastructure development. He noted that in this decade the Corporation had made tremendous strides in ensuring improved access to water and sanitation.



In order to accelerate the delivery of projects, NWSC took the plunge and used internally generated resources to invest in infrastructure development. These were geared towards increasing water production capacity and supply reliability. The Board and Management delegated to the Areas the design and implementation of projects within a certain threshold whilst through its Projects and Capital Development Directorate, larger projects were executed from the centre.

In FY 2020/21, NWSC invested UGX 369 billion for several infrastructure projects in contrast to UGX 508 billion UGX in FY 2019/20. The Corporation also took on two commercial loans to the tune of UGX 50 billion from Equity Bank in 2019/20 and UGX 95 billion UGX in 2021 from Uganda Development Bank (UDB) and Housing Finance Bank (HFB). Larger projects have continued to be funded by Development Partners, including KfW, AfDB, AFD, the WB, the EU, EIB and DANIDA.

The Kampala Sanitation Project, which started in 2008 focused on construction of sewers and modern sewerage treatment plants, in phases. For Phase one, the Lake Victoria Protection Project LVP1 cost Euro 15.3 million and was funded by KfW, EU and the Government of Uganda (GoU) and commissioned in 2014. In Phase two, the Kinawataka pre-treatment plant was completed in December 2018, Nakivubo Kinawataka sewers in September 2019, and the Nakivubo wastewater treatment plant in April 2020. LVP2 cost Euro 65.5 million from AfDB, Euro 10 million from EU and Euro 66.3 from GoU and was completed in June 2020.

The third phase was developing a sewage treatment plant at Mukono and expanding the sewer network. The faecal sludge treatment facility in Buwama was completed. Other sanitation projects included the Arua Sanitation Project, Gulu Sanitation Project, Fort Portal and Kisoro Compact Sewage Treatment Plants, Mbale Sanitation Project, and Adjumani Sanitation Project.



Industrial sector

NWSC worked closely with the Uganda Investment Authority (UIA) to provide a reliable water supply to the 12 established industrial and business parks situated in Kampala, Bweyogerere, Luzira, Kapeeka, Jinja, Mbale, Soroti, Karamoja Kasese, Mbarara as well as small and medium scale enterprises and Nshara agricultural land. The tourism industry relied on NWSC for water and sewerage services for the guests stay. The Corporation was to develop schemes to support the agricultural industry.

Sustainability

NWSC was one of the most compliant taxpayers in 2017, 2018 and 2019. The Corporation paid UGX 40.6 billion in taxes in FY 2019/20 compared to UGX 40 billion in FY 2019/20. To ensure water security, the Corporation has put emphasis on protection of water sources to ensure raw water is guaranteed for future generations and incorporation of catchment protection measures in all future projects. Local Source Protection Committees have been set up with coordinated source protection activities in all areas.

The Corporation continued to ensure that its products, namely safe water and sewage effluent adhere to the national standards as well as WHO guidelines. With 2,500 monitoring testing points nationally, joint water quality monitoring is carried out with Uganda National Bureau of Standards (UNBS), the MWE and municipalities such as KCCA in Kampala. Seventy-testing laboratories are spread out across the country to offer water and waste quality analysis, water and wastewater treatment process control,

monitoring the quality in the distribution network, public awareness programmes, advice on parameters for design and construction of water and wastewater treatment plants, and verification of water treatment chemicals.

The Corporation has adopted the water safety planning approach, a comprehensive risk assessment and risk management approach that encompasses all steps in a drinking-water supply chain, from catchment to consumer. Two of the testing laboratories are scheduled to be accredited under the ISO certification system. There has been an intense adoption of green technology: the Nakivubo Sewage Treatment plant generates biogas and by November 44 solar powered boreholes had been installed.



Corporate Social Responsibility

Annually NWSC budgets for Corporate Social Responsibility (CSR) and a number of activities are undertaken: In FY 2016/17 UGX 1.1 billion was donated to good causes, with 440 institutions and communities benefiting from the initiative.

In October 2014, the Corporation set up the innovative School Water and Sanitation (SWAS) clubs in primary and secondary schools, engaging young people. The clubs grew from 50 to 467 by FY 2021/22 (Central 119, East 86, Metro 58, Northern 98 and Western 106 clubs).

These have engaged in public exhibitions, tree planting, essay and poem competitions, as well as debates. By 2022, some 2 million trees had been planted. The Corporation holds Customer Care Weeks with activities including the painting of zebra crossings, blood donation, visits to vulnerable groups, support to hospitals and churches, and the cleaning and provision of water points in slums, amongst others.

During the COVID-19 pandemic, water points were provided in Kampala in partnership with MTN Uganda, Roofings and Sogea Satom.







General Manager, Kampala Water and his Staff during a team building exercise



Kampala Water Female Staff during the Launch of Improved Protective Wear.

Staff Welfare

The Corporation has put in place several welfare schemes for staff, including the long service award, the medical facilities, sports and recreation e.g. the Water Football Club and participation in the Corporate League. In 2019, the Provident Fund was set up for staff in addition to the NSSF contribution. The Board took the strategic decision to restrict the Scheme Investments in Fixed Income Instruments given the Scheme's age and the volatility of the Investment Markets. This has protected staff savings against investment risks.

Deo Kyambadde, the Senior Manager – Project Accounting, and Chair Board of Trustees explained the genesis: “We have an arm on the Board that handles investments. In October 2019 when we actually started, the initial effort was to draft the legal documents and rules and the investment policy statements, which were then submitted to the regulator,

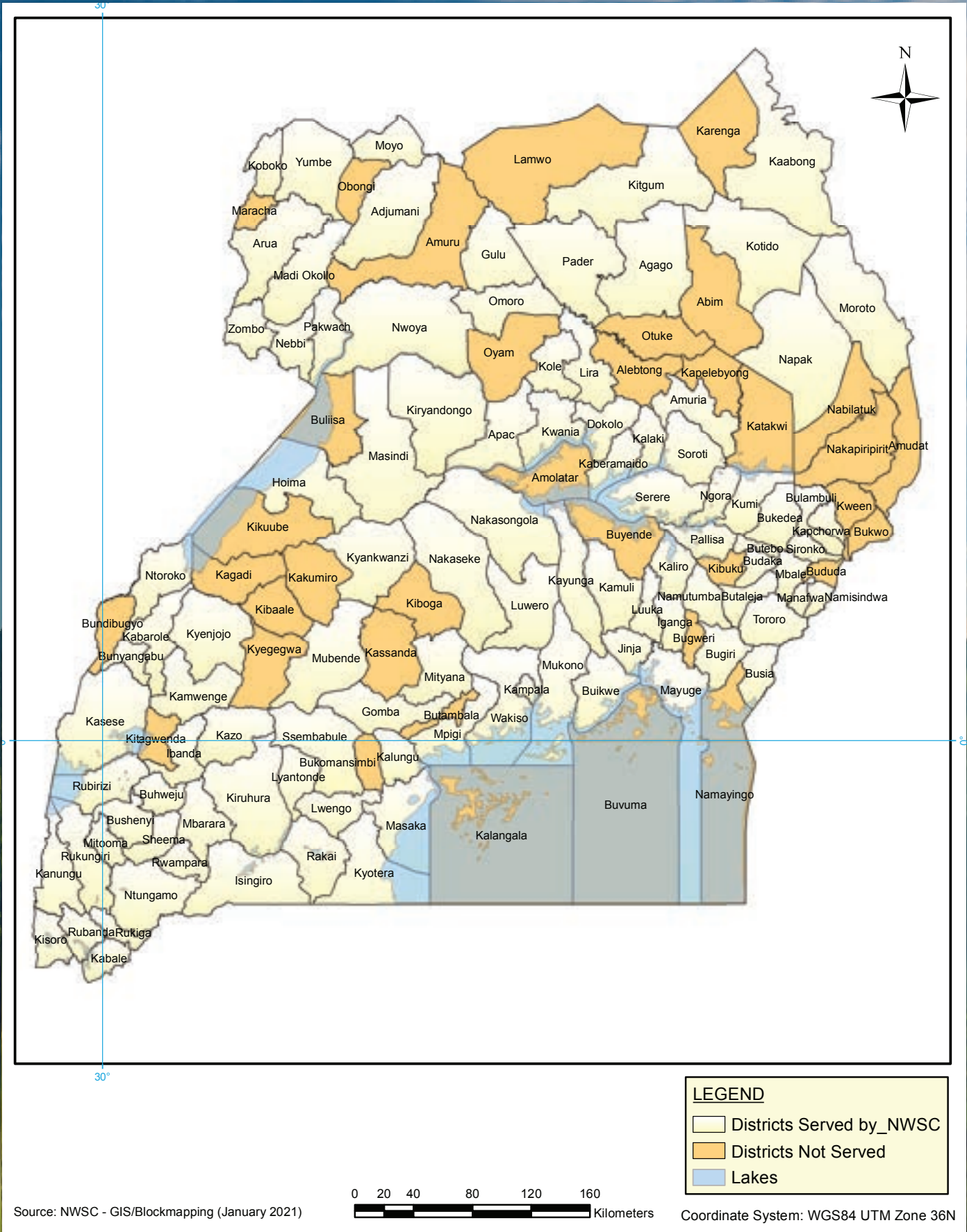
Uganda Retirement Benefits Regulatory Authority (URBRA).” Membership grew in a few short years from 1,800 to 2,900 (70% of the NWSC staff) by November 2022. said Kyambadde.

At the end of three years, the scheme could count the following as key achievements:

- By November 2022, three annual general meetings (AGMs) had been held and the fund had received three clean audits.
- Investment was in accordance with the investment policy statement:
- Fund manager, a Custodian and an Administrator were procured.

As the Corporation marked 50 years, Kyambadde was confident that the future was bright.

Our Nationwide Footprint



Our Geographical Growth (Since 1972)



June 2021 (3 New Towns)

Kibibi, Nakivale and Oruchinga

June 2020 (5 New Towns)

Kiziba, Rukooko, Ntoroko, Rwebisengo-Kanara, Bukomero

June 2019 (18 New Towns)

Najjembe, Magale, Bukwiri, Banda, Kasambya, Misango, Kyankwanzi, Kashaka, Nyakinoni, Nyanga, Kirima, Bigodi, Katalyeba, Shuuku, Nyamunuka, Itojo and Kanyareru and Parombo

June 2018 (18 New Towns)

Lutuuku, Kyambi, Namibirizi, Mateete, Mitete, Ntuusi, Lwebitakuli, Lugushuru, Gombe, Kyabadaaza, Okollo, Koboko, Mayanga-Omuribiri, Kanyabwanga-Omukabanda, Bitereko-Iramira, Kati-Rwempungu, Kisiizi-Kengyera and Sheema.

June 2017 (49 New Towns)

Nkonkonjeru, Buikwe, Busembatya,

Luuka, Kisozi, Nakasongola, Kayei Landing Site, Omogo, Kubala, Okpkotani, Butebo, Anaka, Amach, Dokolo, Serere, Patongo, Kalongo, Sipi, Pallisa, Ngora, Kumi, Yumbe, Moyo, Kotido, Kaabong, Katerera, Kabira, Nyeihanga, Kagongi, Kyenjojo, Mugusu, Kijura, Kamwezi, Rwenkobwa, Kahunge, Kabuga, Kasagama, Kaliro, Katovu, Kinuka, Nyabihoko, Sanga, Kikatsi, Katwe, Harukungu, Rukoni, Kyazanga, Lwengo and Lwengo-Kinoni.

June 2016 (60 New Towns)

Kira Municipality, Nansana TC, Buloba, Kawuku, Abaita ababiri, Bugembe, Bukakata, Mpugwe, Sembabule, Mpigi, Rakai, Bukedea, Kachumbala, Unyama, Nagongera, Bubuto SC, Bunanbwana SC, Sisuni SC, Butiru TB, Manafwa, Lirima, Lwakhakha, Buwoni SC, Kwapa SC, Mella SC, Osukuru SC, Pajule, Nyapea, Pakwach, Busia, Kapchorwa, Kyabugimbi, Kyenjojo, Kashenshero, Mitooma, Kinoni, Kibiito, Rwimi, Rubona, Katebwa, Kicucu, Rugendabara, Kasunga-nyanja, Hima, Nyakigumba, Muhanga, Ishongororo, Omungyenyi, Rubaare, Kagarama, Rwentobo, Rwashemeire, Ruhama, Kitwe, Kikagati, Mirama hills, Irembezi, Rutookye, Buhweju/Nsiika, Kabale-Kabarole.

June 2015 (44 New Towns)

Kakiri, Buwenge, Kagoma, Bugiri, Naluwerere, Buwuni, Kalungu, Lukaya, Buwama/Kayabwe, Ziobwe, Semuto, Kapeeka, Nakaseke, Kiganda, Kamuli,

Mbulamuti, Kyotera, Sanje, Kakuuto, Mutukula, Ibuje, Wandi, Budadiri, Sironko, Atiriri, Kalaki, Moroto, Matany, Kangole, Adjumani, Ryeru, Magambo, Bugongi, Rubirizi, Rubindi, Bwizibwera, Biharwe, Kaberebere, Kichwamba, Ntungamo, Rushere, Kiruhura, Kazo and Mpondwe.

June 2014 (39 New Towns)

Wakiso TC, Mayuge, Kaliro, Mityana, Luweero, Wobulenzi, Bombo, Kigumba, Bweyale, Kiryandongo, Kalisizo, Apac, Aduku, Otuboi, Kitgum, Pader, Nebbi, Paidha, Itendero, Kabwohe, Kitagata, Kisoro, Rukungiri, Kyangyenyi, Kebisoni, Buyanja, Rwerere, Nyakagyeme, Kanungu, Kihhi, Kambuga, Butogota, Kanyampanga, Kanyantorogo, Nyamirama, Kateete, Ibanda, Kamwenge and Lyantonde.

1972-2013 (27 Towns)

Kampala City, Mukono Municipality, Entebbe, Kajjansi, Jinja, Njeru, Lugazi, Iganga, Masaka, Mubende, Arua, Mbale, Gulu, Lira, Tororo, Malaba, Soroti, Kaberamaido, Amuria, Hoima, Bushenyi, Ishaka, Mbarara, Fort Portal, Kasese, Masindi and Kabale.





VALUABLE PARTNERS in Water and Sanitation Sector

WORLD BANK

Country Director - Mukami Kariuki



We started our re-engagement with NWSC around 1979, helping to expand the systems, providing funding for reconstruction or rehabilitation. Most work was around Kampala, and some of the large towns. We shifted to integrated water resource management in 2000 and that meant looking in a holistic way across all of the water systems to ensure sustainable management. We also supported the small towns supplies project. We have been engaged in knowledge exchange and in integration of water resources management. We also engaged NWSC on introducing private partnerships, looking at suitable institutional models and management contracts in trying to bring in global best practices.

We focused on improvement of urban services. The institutional innovation is not just regional but global as a performance - based model as a leader in utility reform on the continent. More recently we are seeing work on the connection policy: ascertaining that connections are provided to those in unplanned settlements to ensure that they have access to services. There are also on-going innovations around the delivery of water to refugees. NWSC has done well in continuous innovation and learning, in leveraging in financing by bringing together different partners - multi-laterals, bi-laterals and the private sector - to support one engagement, and with improvements in financing operational efficiency as a way to make sure that services are affordable.



AfDB (African Development Bank)

Country Director, Augustine Kpehe Ngafuan



The African Development Bank has been a committed partner to the water and sanitation sector in Uganda since 1968. The bank is proud to have supported close to 17 interventions for physical infrastructure and studies. These interventions have been supported through the African Development Fund (ADF) and the African Water Facility (AWF) to the tune of USD 447 million.

The recent support towards NWSC was for the construction of 3 wastewater treatment plants and their sewer network in Kampala.

The intervention was successfully co-financed with KfW and the European Union. The AfDB committed USD 75m to this project.

In 2008, NWSC with support from the bank successfully implemented water supply and sanitation services for the urban poor in Kagugube Parish in Central Kampala.

As NWSC celebrates 50 years of service, the bank reiterates its commitment towards supporting NWSC and the water and sanitation sector as a whole. We congratulate NWSC for distinguishing itself and for being able to successfully implement projects and deliver results.



Kreditanstalt für Wiederaufbau (KfW)

Cornelia Penzel,
Country Director



Kreditanstalt für Wiederaufbau (KfW - 'Credit Institute for Reconstruction') is proud of the longstanding cooperation with Government of Uganda and NWSC for the past 30 years on behalf of the German Government. Our main vehicles of cooperation are grants for investment as well as capacity building.

KfW is proud to have collaborated on the following projects: Ggaba 1 1990 to 2000 and construction of Ggaba 3 Water Treatment Plant which was completed in 2007. This was the first water treatment plant based on latest technology in water treatment in Uganda. KfW has also provided support to the Gulu project. This is part of the efforts to make secondary cities attractive and improving service delivery.

KfW has also been involved in early stage development of projects. Substantial funding was made available for preparatory studies:

- i. Master Plans for water and sanitation
- ii. Feasibility Studies for several concrete, specific investments, e.g. Lubigi and Bugolobi Wastewater Treatment Plants
- iii. Feasibility Studies and Sector Plans to coordinate investments in the sector

We celebrate the cooperation and facilitation that has enabled NWSC to grow in the region and substantially expand its coverage to 263 urban centres across the country.



AFD – AGENCE FRANCAISE DE DEVELOPMENT

Country Director – Hatem Chakroun



More than 50% of AFD's activity in Uganda is dedicated to the water sector with an active portfolio of 620 million Euros.

Almost all the projects financed by AFD in the water sector are implemented by NWSC. The partnership between NWSC and AFD started in the 2010s.

When NWSC was marking 50 years, AFD was involved in four projects:

- i. **Kampala Water Lake Victoria Water and Sanitation Project since 2010.** This was co-financed with The European Investment Bank, The European Union and KfW. This project includes Katosi drinkable water treatment

plant (160 million litres per day with a possibility of adding another 80 million litres). This project is connected to Kampala by a 54km pipeline. It was completed in July 2021 and by end of 2022, the network extension component was still in implementation phase.

- ii. **South Western Water and Sanitation Infrastructure Development Project:**

In December 2016, AFD approved a loan of 120 million Euros to improve water supply in Masaka and Mbarara by financing the construction of a water intake, water treatment plant on River Kagera and a transmission main line and the extension of water supply network in the two cities, as well as the development of sanitation infrastructure.

- iii. **Isingiro Water and Sanitation Infrastructure Project.**

The AFD approved a 69 million Euro Loan and a 2.5 million Euro grant in line with the Rural Water Supply and Sanitation South Western Cluster WATSAN Infrastructure Development for Mbarara and Masaka. The EU added a delegated fund of 7.5 million Euro grant targeting that the refugee areas of Nakivale and Orusinga.

- iv. **Fort Portal Hoima and Lira Water and Sanitation.** A grant of 1.3 million Euros was awarded to finance feasibility studies for the development of drinking water and sanitation infrastructure in Fort Portal, Lira and Hoima.

The AFD stands ready to continue collaborating with the Government of Uganda and NWSC to deliver water and sanitation services.

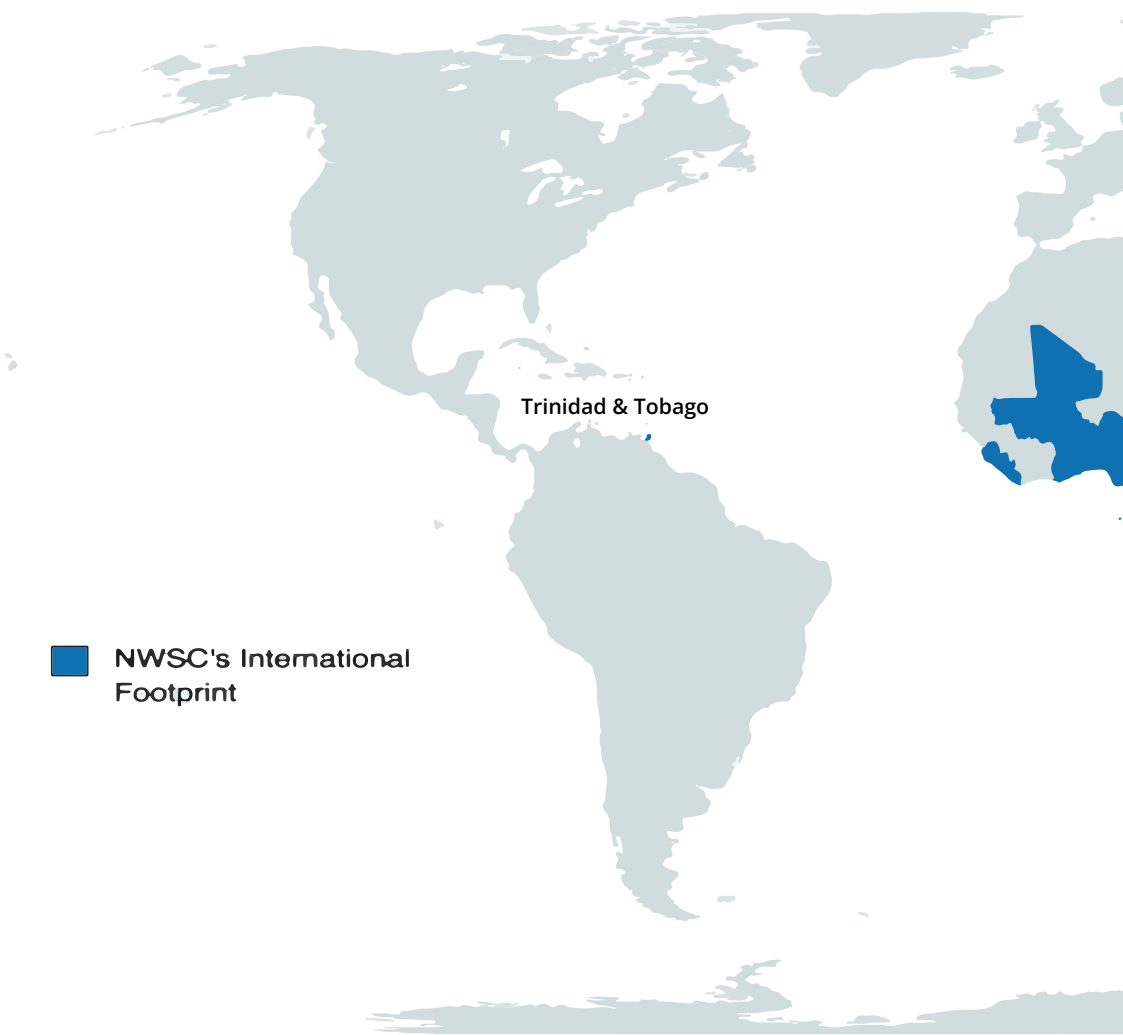
We congratulate NWSC for good project delivery and increased infrastructure development to increase access to water for all.

International Collaboration and Partnerships



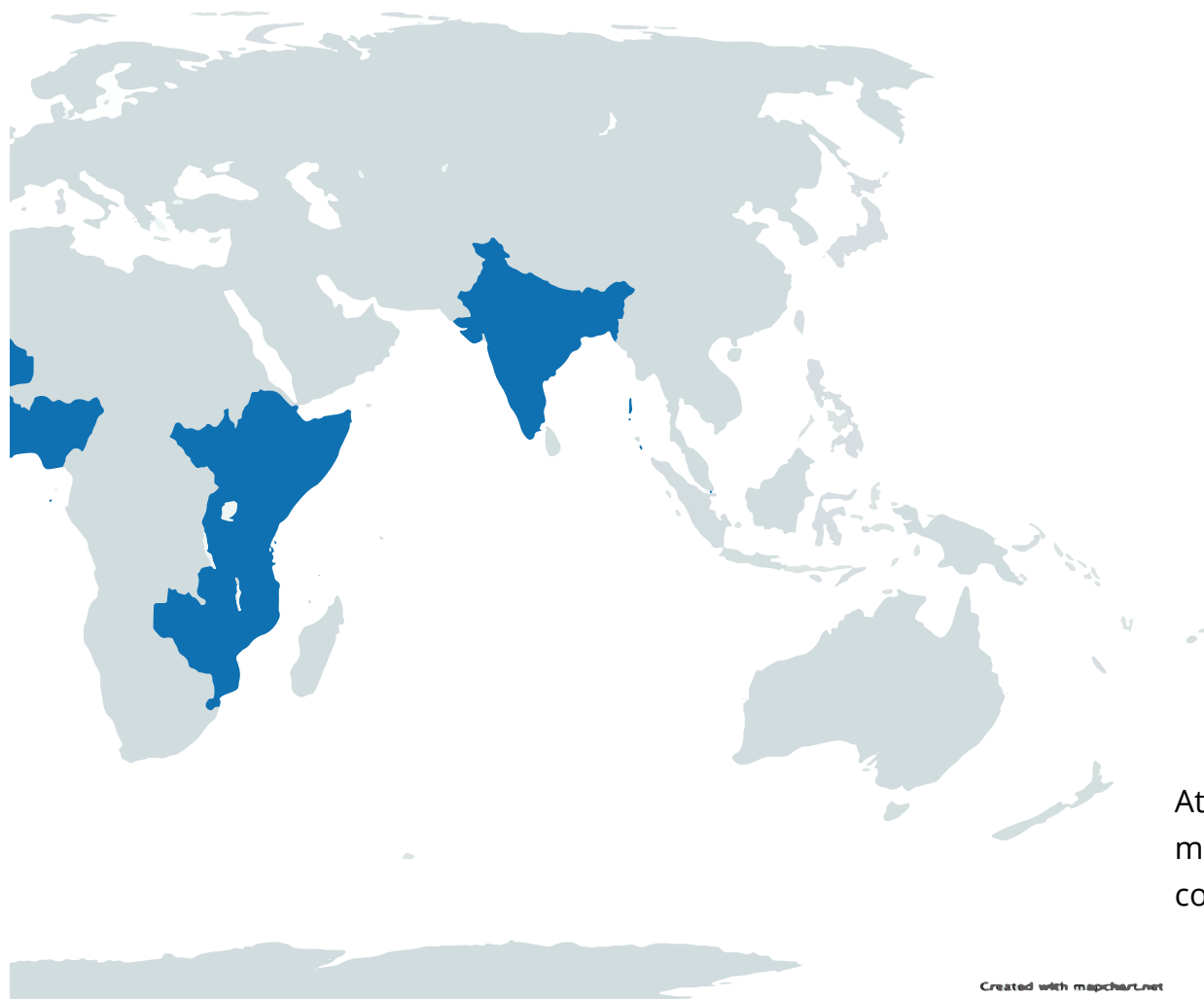
Zainab Mpakiraba- Manager External Services

The External Services Unit (ESU) was launched in January 2005 in response to the demand for NWSC expertise from other utilities and institutions, not only in Uganda, but also in the region, and outside Africa. It was set up with the aim of marketing NWSC expertise and benchmarking the Corporation’s performance with other utilities. Within three years, in 2007/8, ESU had grown its revenues which NWSC utilized for construction of the state of the art International Resource Centre (IREC) to offer skills and management training to practitioners in the Utility industry.





Signing Partnership Agreement with Umgeni Water, South Africa in 2005



At this NWSC Golden Jubilee, the ESU celebrates creation of more than 82 partnerships impacting over 110 utilities from 35 countries in Africa, Asia and the Caribbean

Created with mapchart.net

NWSC’s International Footprint

The External Services unit (ESU) started in 2005 under the Institutional development and External services division led by Dr. Eng Mugisha. The section was initially headed by Sonko Kiwanuka, and later elevated to a department in 2006 led by Dr. Rose Kaggwa.

With strong motivated professional experts drawn from its own staff pool and strategic partnerships, the NWSC embarked on supporting performance improvement of sister utilities and expanding its international footprint.

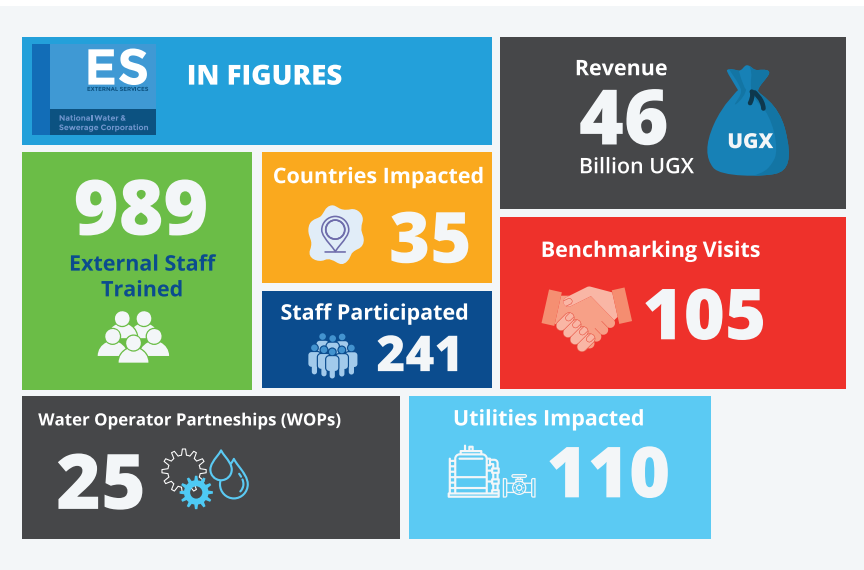
The ES Business Streams



The ESU in executing contracts uses the partnership approach and as an operator is able to share experience and knowledge with other utilities. Key to the startup of ES was the strong formidable team led by Dr. Mugisha and included Eng. Johnson Amayo, Sonko Kiwanuka, Mahmood Lutaaya, Jude Mwoga and Rose Kaggwa. Dr. William Muhairwe was the Backstopping Expert. The team expanded the portfolio from assignments

referred by Development partners to later bidding for international jobs. The Unit was housed at NWSC Head office at Jinja Road until 2011 when IREC construction was completed with savings from External services profits.

Performance statistics since inception



One of the core business streams is the training and capacity development in partnership with the training department of NWSC. The ESU through the training department established the vocational training wing. Courses are delivered covering competences in customer care, sludge /plant operators , sewerage technicians, water quality technicians, heavy motor vehicle operators and welders. In 2022, 395 NWSC staff graduated with practically acquired skills, certified by directorate of Industrial Training of the Ministry of Education and Sports.

NWSC’s Dr. Frank Kizito, who is a civil engineer commented on various capacity building assignments he undertook in other countries, “We have been positioned to share with other utilities



NWSC staff who graduated with the Practically Acquired Skills in 2022 from the Ggaba Vocational Skills Development Facility

within the region that are going through the same things we went through in the past. It has been exciting to go to utilities in the region,” he said.

Since its inception, the ESU has partnered with several water and electricity utilities in various countries, such as Bangladesh, Benin, Burkina Faso, Ethiopia, Ghana, India, Kenya, Liberia, Malawi, Mali, Mozambique, Nigeria, Rwanda, Sierra Leone, South Sudan, Tanzania, Trinidad and Tobago, Tanzania, Uganda, Zimbabwe and Zambia.

Sherry Dumas-Harewood, the Director Customer Care for Water and Sewerage Authority (WASA) of Trinidad and Tobago and project manager for assignment implemented by NWSC, shared her memories working with NWSC ESU. NWSC had been contracted by WASA to support development of

Performance improvement Plan to enhance revenue collection and performance management. “My experience working with NWSC was collaborative, fun, facilitated sharing and mentorship. The NWSC team provided peer support to WASA M&E team strengthening our capacity to effectively and efficiently monitor PIP methodology. The teams worked together many late nights to ensure full stakeholder engagement at all stages of the project. The support from NWSC resulted in improved utility performance and created excitement among employees” she said. She further added “ I am impressed with the way that NWSC has expanded water services in Uganda and continues to contribute to development of the water sector in other African countries and focuses on collaboration with other countries on the international stage”. “I celebrate NWSC and that it continues to share its knowledge and lessons learnt from its transformation with other utilities to improve their performance”.



The 20th AfWA International Congress and Exhibition at The Serena International Conference Centre, Kampala in February 2020.

North-South partnerships for capacity enhancement: IHE Delft Institute for Water Education is one of NWSC's capacity building partner with a long standing record of cooperation. Many of the staff members of NWSC have studied at IHE Delft and some contributed to development and delivery of teaching programmes including Dr. Eng. Silver Mugisha.

In addition, IHE Delft and NWSC have also worked together to support capacity development of water utilities both in the region and internationally. Gaetano Casale, Manager Liaison Office of IHE shared his experience with NWSC Staff

on assignments. "Working with NWSC colleagues on the joint projects has been fantastic. NWSC experts are professional, knowledgeable, proactive and most of all result-oriented. Specifically, the professionalism of NWSC staff does not stop at the technical level, but also goes beyond". "I remember in one of our meetings we were discussing late afternoon about how to handle taxes in the financials of one of the projects. The next day a tax expert was provided demonstrating the pro-activeness of NWSC staff to address problems quickly" recounted Gateano.



Top left and right: ES teams launch EU WOP projects for Somaliland (left) and Zambia (right); Above left: ES and IHE Delft staff that jointly prepared CAPI-WUA proposal in 2012; Above right: CWASA staff during a benchmarking visit to NWSC urban poor in Kisenyi; Above: MD NWSC (second left) at the Workers PAS graduation on 11th Nov 2022 at Ggaba VSDF

International collaboration and foot print: The NWSC is an active participant and contributor on the continent with the African Water Association (AfWA) and internationally with the International Water Association (IWA). IREC hosts the African Water and Sanitation Academy (AWASA).

While congratulating NWSC upon its 50th Anniversary, Ing. Sylvain Usher, the Executive Director of AfWA said, “We take NWSC as an example not only in Africa but the whole world.”



Above: On going construction of a new water treatment plant in Lyantonde, Below: Kapchorwa Water Treatment Plant





Above: Solar powered pump house in Kitgum, Below: Water Transmission line from Katosi





Above: Rt. Hon. Prime Minister Ruhakana Rugunda and Minister of State for Water Hon. Ronald Kibuule inspect Nakivuubo Sewerage Treatment during construction. Below: Nyaruzinga Water Treatment Plant in Bushenyi and Right the newly constructed Kitagata Water Treatment Plant, Bushenyi





ACCELERATED INFRASTRUCTURE DEVELOPMENT

Completed projects as of November 2022

1. Nakivubo Waste Water Treatment Plant Project
2. Katosi Drinking Water Treatment Plant Project
3. Katosi - Kampala Transmission Mains
4. Nakivubo and Kinawataka Sewers Network
5. Kinawataka Pre-treatment and Pumping Station
6. Gaba 1&2 Water Treatment Plants Refurbishment
7. Arua Water Management and Development Project
8. Bushenyi Water Management and Development Project
9. Gulu Water Management and Development Project
10. Compact Sewage Treatment Plants for Fort Portal & Kisoro Towns
11. Kapchorwa Water Supply Project
12. Fort Portal Water Production Improvement Project
13. Sembabule Water Supply Improvement Project
14. Kapeeka Water Supply Project
15. Masindi Water Production Improvement Project
16. Buloba Water Supply Project
17. Parombo Water Supply Project



The giant twin biogas digesters at the Nakivubo Waste Water Treatment Plant, Bugolobi. Construction concluded in 2021

18. Awila Water Supply System
19. Chegere Water Supply project
20. Ovisioni Water Stabilisation Project
21. Onduparaka Water Supply Stabilisation Programme
22. Lemo II Solar Water Supply System
23. Lira-Palwo Solar Water Supply System
24. Shuuku - Kabwohe Bulk Water Transfer
25. Bigodi Water Extension Project
26. Bisozzi Water Extension Project
27. Upgrade of the Mukazi Water Transmission System in Ibanda
28. Water Production Improvement at Entebbe Water Treatment Plant
29. Kitende-Kiwamirembe Water Supply Improvement Project
30. Increasing Raw water supply abstraction from Kachwamango Dam to Katoma Plant
31. Seguku Katale off Entebbe Road to Bukwenda Pipeline
32. Rubaga Reservoir to Bulenga Booster Pipeline
33. Mbuya Booster Station to Mbuya CMI hill Pumping Main
34. Kanisa Ya Kristu Namugongo to Kira Police Distribution Pipeline
35. Sonde/Jinja Misindye to Nabusugwe Swamp, Bulindi, Nakwero Distribution Pipeline
36. Ziranumbu Hill Pumping Main and reservoir at Ziranumbu
37. Gangu Hill Pumping Main and Booster Station
38. Maya Hill Pumping Main, Booster Station, and Maya Hill Reservoir
39. Nagulu hill Tank and Naguru Distribution Pipelines
40. Kira – Najjera/Buwate - Kungu Pipeline
41. Kasubi – Nansana and Booster Station
42. Nakwero Gayaza Pipeline
43. Zimwe Tank – Mukono Pumping Main
44. Kalambi Hill Pumping Main
45. Buloba – Kisamula Pipeline
46. Nabuti – Kyungu
47. Kololo Pumping Main
48. Kabulengwa Hill Pumping Main and Kabulengwa Hill Reservoir
49. Katalemwa – Matugga Pipeline
50. Gayaza Manyangwa Pipeline



The Ggaba 1 Water Treatment Plant on the shores of Lake Victoria

Projects to be unveiled

1. Kampala Network Restructuring & Rehabilitation
2. Improvement of Water Supply and Sanitation Services in Informal Settlements
3. Mbale Water Supply and Sanitation Project
4. Karuma Water Treatment Plant
5. Gulu - Karuma Transmission Mains
6. Adjumani Water Supply and Sanitation Project
7. Kagera Water Works
8. Mbarara Water and Sanitation Project
9. Masaka Water and Sanitation Project
10. Wakiso West Water and Sanitation Project
11. Hoima Water Supply Improvement Project
12. Lyantonde Water Supply Project
13. Compact Sewage Treatment Plant for Kiruddu Referral Hospital
14. Bushenyi Water Supply Augmentation Project
15. Kyankwanzi Water Supply Project
16. Kalungu Water Supply Project
17. Soroti Water Supply Project
18. Tororo Water Supply Project
19. Kanungu Water Supply Project
20. Moroto Water Supply Project
21. Lira Water Supply Improvement Project
22. Extension of Water Supply Services to EACOP Facilities
23. Ajono Water Supply Stabilisation Programme
24. Jupamocho III Water Supply System (Paidha)
25. Layibi Techo Water Supply System



Above: Kapeeka Water Treatment Plant.

Right: The waste water stabilisation ponds at the Lubigi Treatment Plant in Kampala

26. Parego Water Supply system
27. Pakwach Water Production Augmentation
28. Odubonga Water Supply system
29. Mbale Water Supply System
30. Rwemigina WSSP
31. Nyakyeru Water Supply System
32. Rugarama Water Extension Project
33. Kihumuro Barracks Water Extension
34. Kamwezi Water Supply Improvement Interventions
35. Muhanga Water Supply Improvement Interventions
36. Gishegera Water Extension Project
37. Nkanka Phase II Water Supply Project
38. Kigabiro Water Extension Project
39. Kakindo Water Extension Project
40. Kati-Kanyabwanga Project
41. Bweranyangye Extension Project
42. Ntungamo Water Supply Stabilization Interventions
43. Kihanda Water Supply Extension Project



44. Katerero-Kengoma Water Extension Project
45. Improvements at Mpanga Water Treatment Plant
46. River Kyanjoki Raw Water Abstraction Project
47. Improvements of Water Supply in Kaabong Branch
48. Improvements of Water Supply in Kotido Main
49. Water Supply Stabilization in Serere Town Council
50. Refurbishment of Soono Water Works to stabilize water supply in Lwakhakha, Bumbo and Kwapa
51. Water Supply Project to Manafwa Town Council
52. Water Supply Project to Mukura Town Council
53. Kamuli WTP Modification and Upgrade
54. Bukunda Water Supply Project
55. Bulyantete Water Supply Improvement Project
56. Kawolo Piped Water Mini System
57. Lwengo Water Supply Project
58. Katabalanga Water Supply Improvement Project
59. Nsengwe Water Supply Project
60. Musozi Water Supply Improvement Project
61. Kiganda Water Supply Improvement Project
62. Kasubi – Kawaala Pipeline
63. Bandwe Hill Pumping Main, Booster Station and Bandwe Reservoir
64. Namasuba – Rubaga Pipeline
65. Ntinda – Kiira Pipeline
66. Kisaasi – Kungu/Kyanja Pipeline
67. Kyanja Hill Pumping Main and Booster Station
68. Nsangi – Maya Pipeline
69. Mutunde Hill – Kinaawa Pipeline
70. Kikajjo – Kasenge Pipeline
71. Kinawa – Kyengera Pipeline
72. Seguku Booster – Lubowa Hill
73. Lubowa Tank – NSSF Housing Estate
74. Kyebando Pumping Main and Booster Station
75. Makindye – Lukuli Pipeline and Booster Station





Transformational Breakthroughs

- Service Coverage Acceleration Projects (SCAP100) and Water Supply Stabilisation Plans.
- Implementation of Capital Development projects (Internally and externally funded)
- Customised Area Water Loss Prevention Programme.
- Tariff Reviews and Rebalancing
- Enhanced Stakeholder Engagement
- Digitalisation
- Skilling and Workforce Development
- Enhanced Environmental Source and protection
- Enhanced Staff Welfare
- Networking and Strategic Partnerships
- Enhanced Research and Innovation (Adoption of home-grown solutions)
- Adoption of Market Financing

Impact

- Increased Access and Service Coverage
- Improved Operational Efficiency and Sustainability
- Growth in the Asset Base
- Industrial Growth
- Movement towards a Smart Utility
- Staff Retention Skilled and Strengthened Workforce
- Adoption of Green Technology





SECTION 7

Into the Future





RT. HON. ANITA AMONG,

Parliament committed to providing oversight of NWSC

As a public body, NWSC is governed by law, with oversight given by the Parliament of Uganda. On the Corporation's 50th anniversary, the Speaker, the Rt. Hon. Anita Among, shared insights into this relationship.

Since the enactment of the National Water and Sewerage Operational Act in CAP. 317 in 1995, Parliament has actively participated in the transformation of the institution and we have walked the journey together.

It will be appreciated that Parliament in enacting the Act incorporated the following key aspects:

- Creation of the Board of Directors as the policy-making body
- The development of the three-year corporate plan that offers strategic direction to the corporation, and
- Appointment of the Corporation as a water authority and sewerage authority or both.
- This provides the fulcrum from the transformation of the corporation particularly in terms of governance and in operations.

In compliance with Article 159: 2 of the Constitution and Section 36 of the Public Finance Management Act, Parliament is also at the forefront of approving, scrutinising and authorising government to obtain the loans for the Corporation. The Committee on National Economy has been pivotal in advising



the House (Parliament) on loans that are being given to the Corporation. The committee on Natural Resources plays a critical role for the Corporation during the consideration of the National budget by scrutinising and recommending how much funding should be given to the Corporation depending on the priorities. It looks at competitive remuneration of staff and increasing the coverage of services and that is how revenue is given to the population.



A contractor (extreme right) explaining a point to Members of Parliament visiting the Shuku Water Works Project in Sheema District, November 2017

Parliament has executed its oversight role and held accountable Accounting Officers responsible. This role is being done by a committee of COSASE (Commissions of Statutory Authorities and Agencies) and the committee of Natural Resources. The fact that we do the budgeting warrants that NWSC uses the money in the right way. We support the corporation because Water is life, and that being so we support all the projects and promote inclusiveness, ensuring that we have safe water in every village.

For instance, in F/Y 2022 and 2023 under the Service Acceleration Project (SCAP 100), Parliament appropriated an additional UGX 20 billion for the Corporation to ensure increased access of water for slum dwellers. I really want to thank NWSC, because in my village in Bukedea, in Teso, we have tap water.

For the next 50 years the Corporation needs to widen its sewerage coverage of the country. While substantial progress has been made in water service, with the current rate of 78% in

2021 / 2022 the sewerage service, at 23%, is still low. This (the limited sewerage network) is why you find someone's septic tank just next to your door.

My plea and request to Government is that based on what NWSC has done in the last 50 years, it should be left to be a self-sustaining institution.

At the global level the UN has set the SDGs which include Goal 6: Water and sanitation for all. Let us align it with what the Government of Uganda is doing – we have set VISION 2040 as a development goal and the NRM manifesto also. Parliament can increase the funding of the Ministry of Water and Environment and that of NWSC. The efforts received wide recognition Speaker of Parliament, Anita Among, reiterated the Government's commitment, *"water being life we will support all the projects and promote inclusiveness surely ensuring that we have safe water in every village, in every area especially vulnerable areas like Bukedea."*





P.S. ALFRED OKOT OKIDI

on opportunities for the Future

Alfred Okot Okidi, the Permanent Secretary at the Ministry of Water and Environment (MWE) as NWSC was celebrating 50 years, cited inadequate funding as a major bottleneck to Water Sector operations: “Water and sanitation services are not purely commercial goods; they are more of social goods, and so there is need for a lot of support in terms of infrastructure.

Look at the rate at which the population is growing: if the funding is not commensurate, we could, in real terms end up with situations in which more and more people may not have access to water. This is a big challenge for the corporation and the ministry.”

Climate change is a threat to water resources, a phenomenon Okidi is wary of: “Climate change has come with a menace – the quantity and quality of water has declined. Therefore more money is needed to supply water to the people. When we see what is happening globally we realise that the cost of production and inputs has gone up. It is squeezing the Corporation and the Water Sector. In the big urban centers networks now require replacement – they are old and this requires money. Non-revenue water (NRW) becomes a challenge.

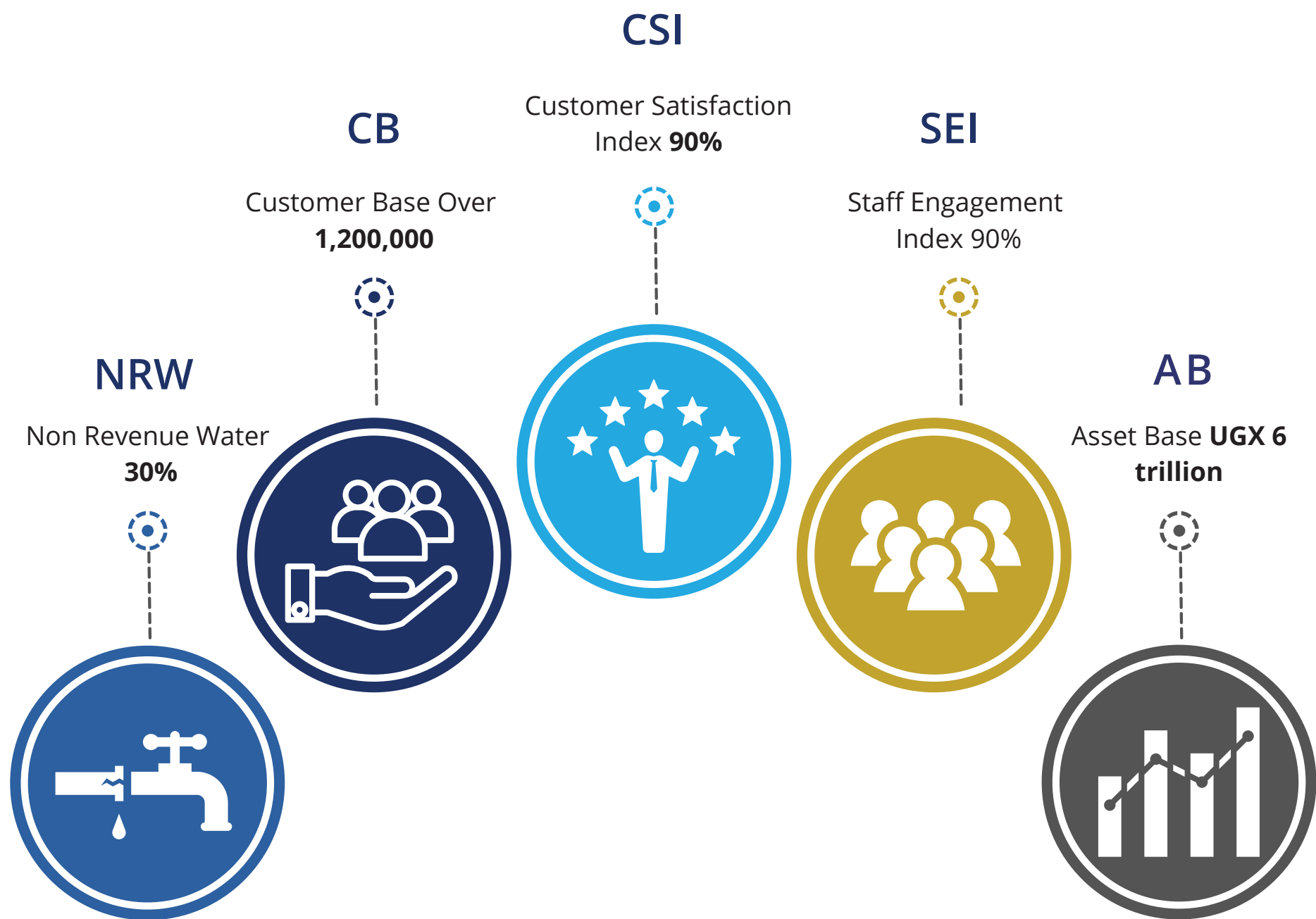
“The planning of urban centres needs to be strengthened, and from the Government’s point of view, we must move in that direction. The towns have to be well planned, which is what



will guide us in the provision of the services. We should stop chasing development. Instead, development should get us when we are already there.”

NWSC GOLDEN INDICATORS

2021 - 2026



MANAGING DIRECTOR DR. ENG. SILVER MUGISHA

Commits to the Future

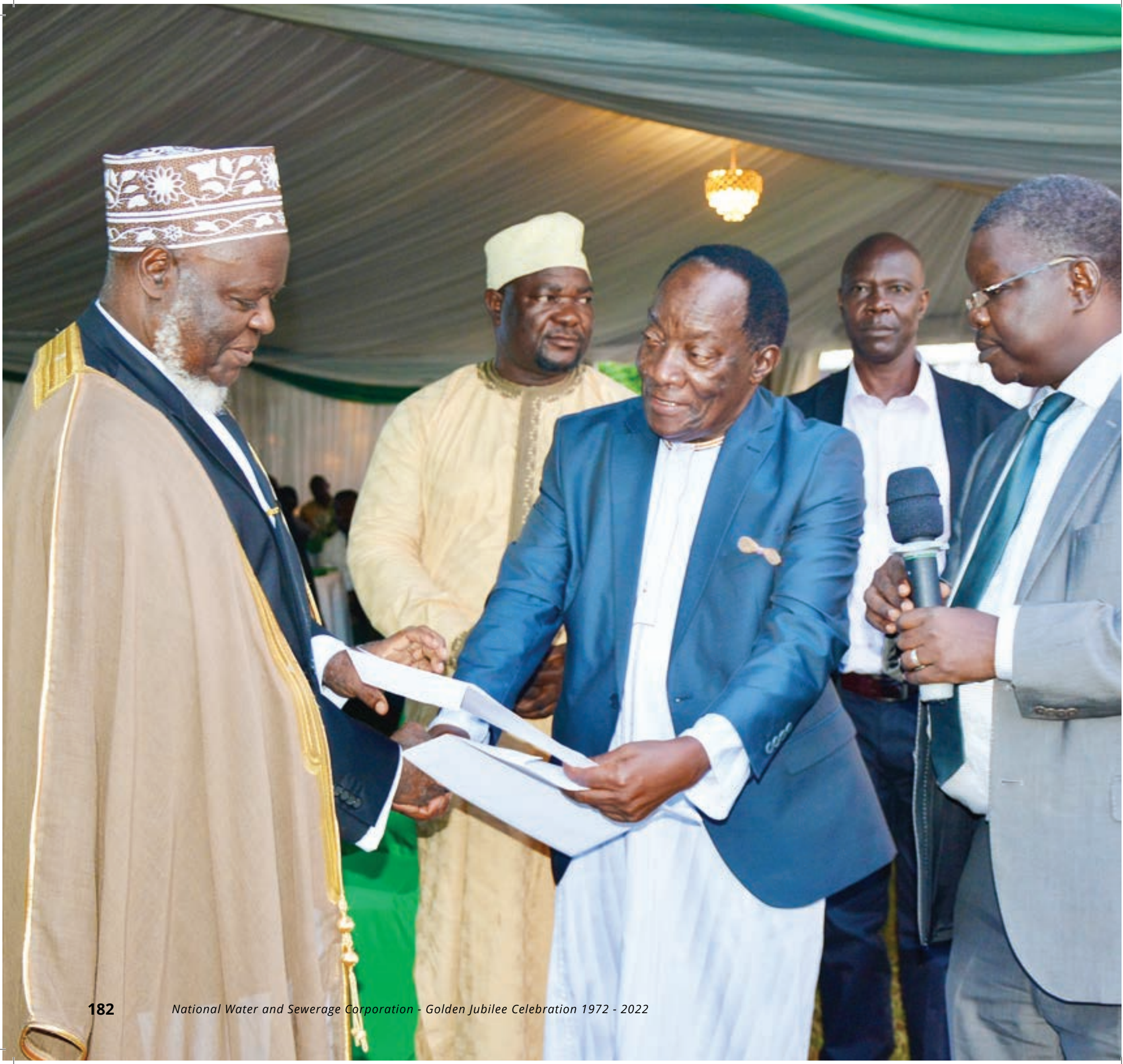
“Projecting into the future, I see a financially stable institution, self-financing with 100% coverage. That is the frontier we are working to cross. I see the level of assets under management grow from UGX 4.1 trillion today to more than UGX 30 trillion. This implies that NWSC would have reached a business level where it is serving all Ugandans.”

The NWSC has developed five golden indicators to track critical performance parameters within the Corporation monitoring framework.

Our commitment for the future embraces

- Water and sanitation for all
- Financial Sustainability
- Skilling and Workforce Development
- Novel customer experience
- Smart Utility/ Digitalization and innovation, Paperless society
- Climate Resilience
- Enhanced partnerships and Networks





Giving Back to the Community

As a responsible corporate citizen, the National Water and Sewerage Corporation gives back to the community in several ways as demonstrated in the following section.





Giving Back To Community

At Nsambya babies home, the NWSC brought smiles to children and is championing a 10 million tree planting campaign to contribute to food and security. The SWAS and YWP clubs that NWSC has patroned are leading the way in the green treevolution.



NWSC gives back to Nsambya Babies Home







NWSC Area Staff Celebrate 50years





CONGRATULATORY MESSAGES

You have survived 50 years, most state-owned institutions did not. Don't you feel great that you are making a contribution.

Prof. Ephraim Kamuntu,
Former Minister of Water and Environment



I am proud of having served in a Corporation that has delivered. We left a foundation that is being built on by other Board members.,

Christine Nandyose Kasirye
Former Chairperson NWSC Board



My gratitude to the Corporation for giving me the opportunity to serve. I am happy that the Board, Management and staff are of a sound manner.

These 50 years will enable us look into the vision that established NWSC.,
Dr. Charles Wana Etyem former Deputy
Managing Director, NWSC
Former Chairperson NWSC Board



I thank the GoU for giving me the opportunity to serve on the Board. I am happy with Dr. Mugisha and what he has done with his team. Congratulations! I am proud to have been part of NWSC. God bless you!

Dr. Abdullahi Hussein Shire,
Former Board Member



NWSC is a household name. My prayer is we continue to work hard with commitment so that when we celebrate the 100th year NWSC would have prospered beyond expectation.

Can Amos Lapenga
Former NWSC Training Manager



I celebrate the development of capacity to provide sustainable services.

Eng. Charles Odonga,
Former General Manager, Kampala Water



NWSC being the only facility that has not been sold.

Eng. Bill Wandera, former Chief Engineer,
Planning and Capital Development



Continue your dedication, your unwavering commitment that you have demonstrated. Make sure we take NWSC to higher levels and we leave it better than we found it

Eng. Dr. Badru Kiggundu,
Chairperson NWSC Board



Our slogan remains Water is Life. With the 50 years of experience and quality delivery, I am convinced NWSC has the capacity to start another journey of 50 years.

David O. O. Obong
Former Permanent Secretary, Ministry of Water
& Environment



NWSC is playing such a big role in the operations of AfWA. I am sure they can play a big role in hosting the African Water and Sanitation Academy, one of the arms of AfWA.

Mr. Sylvain Usher, Executive Director of the
African Water Association - AfWAd



Private Sector Foundation of Uganda tells investors that as far as water is concerned it is a done deal.

Elly Karuhanga, Chairman PSFU and
Chairman Uganda Chamber of Mines and
Petroleum



Today you don't hear people cry for water! Why? Because the service is now available and efficient. We shall continue to work together, to support them, especially with money for investments.

Keith Muhakanizi, former
Permanent Secretary, Ministry of Finance







Dear,
Dr. Eng.
Silver Mugisha

Resident City
Kampala
NSC
port towards the
leader's conference
(2019)

EUROPEAN
QUALITY AWARD

AWARDS
AFRICA

AWARDS
AFRICA

AWARDS
AFRICA



ROTARY VOCATIONAL AWARD 2020-2021



Dr. Eng. SILVER MUGISHA
Managing Director, NWSC

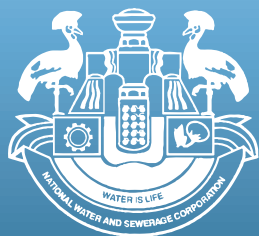
In recognition of your dedication and invaluable service towards
Water and Sanitation Sector in Uganda

12 Feb 2021



Charles Musinguzi, D.D. President 2019-2021





National Water and Sewerage Corporation
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Kampala, Uganda
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Email: info@nwsc.co.ug, Website: www.nwsc.co.ug



waterug



@nwscug