

All systems go

Africa

Background note | September 2022



Purpose

The All Systems Go Africa symposium will be held in Accra, Ghana, in October 2022. The Symposium will build on the 2019 All Systems Go! symposium held in The Hague, the Netherlands. It focuses on the outcomes and trends in sub-Saharan African countries related to water, sanitation and hygiene and the SDGs, and will bring together people from the water, sanitation and hygiene sector, as well as leaders and champions from education, health, public finance, and the emergency sectors to exchange ideas, learn from past experience, and see more clearly how to strengthen water, sanitation and hygiene systems in Africa.

This background note sets the scene for the All Systems Go Africa symposium. It looks at our understanding of water, sanitation and hygiene as a system, and the key bottlenecks in these systems in Africa that need to be addressed to achieve universal access to water, sanitation and hygiene services by 2030 (Sustainable Development Goals (SDGs) 6.1 and 6.2).

Water, sanitation and hygiene systems

When we turn on a tap or flush a toilet, we rarely think about what lies behind these seemingly simple acts. We are blind to the complexity of the different components and network of people and things; of money and rules and information; and, of the relationship between the software and hardware required to ensure that water flows from the tap and the toilet is flushed. These are what we call the systems: the elements that need to be in place to make it possible for the delivery of public services like water and sanitation. Unfortunately, we often underestimate these elements and what it takes to provide the basic services that these systems deliver.

Systems are all around us, delivering essential services that we rely on. Education, health, road traffic – in each case, we are interacting with a system. Some have clearer boundaries and are more obvious than others, but they all have different elements that interact in complex and interdependent ways to deliver functions, services or other outcomes. In effective systems, people and organisations work with each other and with all sorts of more or less tangible elements, such as funding, policy, institutions, technology and the physical environment, to deliver the services that people want and need. The stronger and more developed the system, the more comprehensive and durable the services it delivers. When they work well, systems are unnoticed by the people they serve. When they don't, the failure is obvious: the plane is cancelled, the electricity shuts down, the tap is on but no water comes out.

Universal water, sanitation and hygiene services are vital to our collective welfare and development. They save and improve lives. For public services like water, sanitation and hygiene, service delivery is understood to be a core responsibility of the state, whether the government itself provides the service directly or oversees its provision by others.

When we talk about systems in water, sanitation and hygiene, we are talking about everything that is needed

to supply safe services to people. That is: the physical raw water in rivers, lakes or underground; the physical infrastructure – the pumps and treatment plants and pipes that bring water to people's homes or water kiosks; the meters and taps in people's houses; the people and organisations they are part of; the public servants that issue the permits to extract that water; the people who manage the distribution network; and, the people who read the meters. We are also talking about the relationships and interactions between these different parts of the system, including the customers who pay their bills (or don't); the policymakers who decide which infrastructure to invest in; the financiers who help pay for it; and, the politicians and regulators who create the legal framework for owning assets and setting tariffs. All of these together make up the safe water, sanitation and hygiene system (Moriarty, 2017).

Water, sanitation and hygiene systems can, and do, come under stress in any country and region of the world. They all face the challenges of limited support, both financial and political, and limited willingness to pay even as demand grows and the expectations of a universal service rise. Yet in many poorer countries, the basic elements required for the modern water, sanitation and hygiene system to function at scale simply do not yet exist or do not work as expected. Either the 'rules of the game' are not clearly established or respected, or individuals and institutions lack the resources to perform their functions.

The Kampala WASH symposium in June 2016, *From Projects to Services: WASH Sustainability through Whole Systems Approaches*, introduced the concept of water, sanitation and hygiene as a system (Lockwood et al., 2016). In March 2019, All Systems Go! built on the Kampala outcomes (Huston, Moriarty and Lockwood, 2019), bringing together people from the sector to exchange ideas, learn from past experience and more clearly see how to strengthen water, sanitation and hygiene systems.

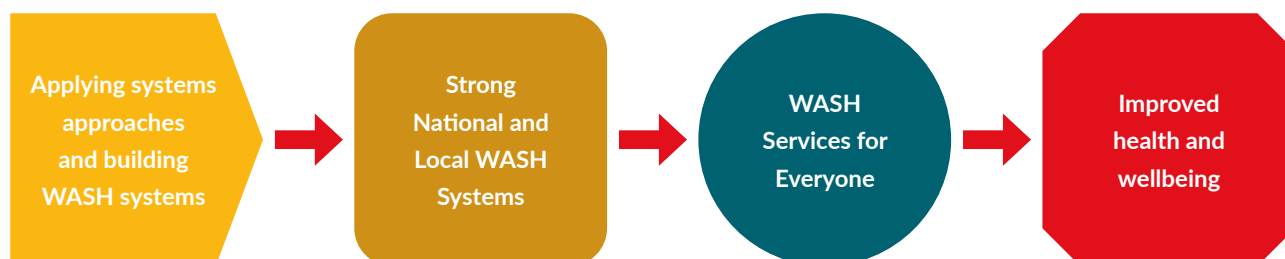


Figure 1: Theory of change for the water, sanitation and hygiene sector

What progress have we made with water, sanitation and hygiene systems in Africa?

In the midst of the COVID-19 Pandemic

Progress was further slowed down when the COVID-19 pandemic shook the planet in 2020 and 2021 and there was great concern all over the world. In Africa, the concerns revolved around the immense challenges already faced by many in the health and water, sanitation and hygiene sectors, particularly in Sub-Saharan Africa. Both the water, sanitation and hygiene and the health care sectors came under immense pressure to provide essential services to prevent and control the spread of the pandemic. Governments (centralised and decentralised) were challenged to supply more and safe water to households, health care facilities and public places. The high demand for limited medical care, personal protection equipment, and materials pushed the health and water sector to the brink of collapse and left much of sub-Saharan Africa dependent on barriers to infection.

Governments developed policies and Standard Operating Procedures to mitigate the pandemic and provide guidelines to the population. Along with social distancing, the most widely promoted of these was washing hands with clean water and soap for at least 30 seconds multiple times a day. UNICEF and WHO's Joint Monitoring Programme (JMP) data confirmed that this seemingly simple act is a profound challenge for the 750 million people living in sub-Saharan Africa without access to drinking water at home. Of these, roughly half have access to an 'improved' source—often a community-managed handpump that they share with hundreds of others while many people also develop and improve their own private supplies¹. The other half have to make do with various forms of limited or unimproved sources, including raw surface water.

1. www.rural-water-supply.net/en/news/details/100

The COVID-19 pandemic is but the latest pandemic to strike the continent, following in the footsteps of Ebola, Marburg, cholera, SARS, H1N1 and others. Basic public health measures like hand hygiene and good sanitation have been known to be effective barriers to diseases like this for decades if not centuries. Yet, 75% of the population in sub-Saharan Africa will struggle to do the one simple act of frequent handwashing that could help protect them.

Access to safely managed drinking water and basic sanitation

Between 2015 and 2020 access to safely managed drinking water in rural Africa remained at around 23%, while access to basic water services improved from 57% in 2015 to 61% in 2020. It is projected that at this rate, only about 69% of the rural population in Africa will have access to basic water supply services by 2030 ([JMP, 2022](#)). North Africa has the highest levels of access to safely managed drinking water services at 69% of the rural population followed by Southern Africa at 20% in 2020. Central Africa has the lowest level of access at just under 3% of the population in 2020. In terms of sanitation, most countries did not have data on levels of access to safely managed sanitation.

Similarly, access to 'at least basic sanitation' in rural areas of Africa only improved marginally from 35% in 2015 to 37% in 2020. Again, when viewed from a regional perspective, North Africa recorded the highest levels of access to at least basic sanitation services at 88% in 2020. At this rate, about 95% of North Africa's population will have access to at least basic sanitation by 2030. The Central Africa region had the lowest level of access at 16% in 2020 with a negative trend recorded between 2015 and 2020.

Why is Africa in this situation?

There are several reasons for the water, sanitation and hygiene situation in Africa. Key among them are the difficulties and high costs of providing water, sanitation and hygiene services due to low prioritisation and investment (UN-Water, 2021; WHO and UNICEF, 2021).

African governments and heads of state have pledged their support for international agreements such as the Africa Water Vision 2025, Africa Agenda 2063, and Sustainable Development Goal 6 on Clean Water and Sanitation, demonstrating that water, sanitation and hygiene services are a top priority at the continental level. However, this commitment does not translate into improved funding and utilisation in the water, sanitation and hygiene sector itself. According to the WHO's TrackFin Report, 'the contribution of government funding to the sector is usually quite limited, with the largest proportion of water, sanitation and hygiene funding coming from users either in the form of tariffs to service providers or expenditure on self-supply' (WHO 2021, p. 19). The report also states that expenditure on water supply accounts for most water, sanitation and hygiene spending, and it is more urban than rural. Support from External Support Agencies in the form of Official Development Assistance (ODA) that is part of government coordinated spending plans (SDG 6.a.1) has been an important source of funding to the water, sanitation and hygiene sector. Unfortunately, the gaps between commitments and disbursements have been growing between 2015 and 2019.

The African Development Bank estimates that an annual investment of USD 35 billion per year is needed in sub-Saharan Africa to meet SDG 6. In North Africa, this amount is USD 4 billion per year. This is many times more than what has historically been invested. As part of the UN Water Global Assessment and Analysis of Sanitation and Drinking-Water Survey, a small sample indicated finance gaps of between 39% for urban water supply and 78% for rural water supply². The progress observed in North African countries is directly linked to the investments made over past decades.

As countries continue to navigate the COVID-19 health crisis and its consequences for their economies, governments across the world, including in Africa, aim at identifying and implementing measures to support long-term recovery. Governments and key economic players are making critical decisions now about the areas in which to

2. www.afdb.org/en/news-and-events/investing-water-and-sanitation-key-achieving-sustainable-development-goal-6-bank-vp-tells-african-finance-ministers-39072

invest and should be guided by global economic analyses, showing that green spending, including on resilient water and sanitation, can secure both greater growth and a greener future. For the most vulnerable communities, economic, health, and climate shocks and impacts are not felt in isolation but are interrelated and connected. The intertwined health, economic, and climate crises highlight the crucial role of water, sanitation and hygiene in building resilient communities and achieving sustainable development³. Resilience to any type of crisis starts with guaranteeing access to water, sanitation and hygiene.

African authorities' commitments

The first and probably best-known reference for water professionals on the continent is the Africa Water Vision 2025. It was introduced in 2000 by the United Nations Economic Commission for Africa in collaboration with the African Union and the African Development Bank. In March 2000, African leaders signed up to the vision of **'an Africa where there is sustainable access to drinking water and sanitation that are safe and adequate to meet basic needs of all by 2025'**. This goal was supported by substantial structural measures that included:

- mainstreaming full cost recovery and service differentiation, while ensuring safety nets for the poor;
- securing sustainable financing from national and international sources for tackling urgent water needs;
- securing sustainable financing for institutional reform;
- securing sustainable financing for information generation and management; and,
- promoting and facilitating private sector financing in the water sector.

What is striking is that, more than 20 years ago, they were in alignment with what is being called for in terms of structural measures in several key reports published in 2021 and 2022 ([AMCOW⁴](#), [AFDB⁵](#)). And with what is increasingly being referred to as **national and local water and sanitation systems strengthening**.

Following the African Water Vision, other policy measures such as the Sharm El-Sheik Commitments (2008), the eThekweni Declaration (2008) and the Ngor Declaration (2015) have been taken to address the slow progress in Africa on drinking water and sanitation. In sanitation, the African Ministers' Council on Water (AMCOW) African Sanitation Policy Guidelines were adopted in 2021. They provide new and clear guidance to African governments for the development and implementation of large-scale national sanitation programmes. They aim to provide a new impetus to follow up on the political commitments related to SDG 6.2.

So why has so little progress been made in these lofty systems strengthening goals over the last 20 years? We believe that the water, sanitation and hygiene sector in Africa has lacked a strong and clear agenda for systems strengthening and that, better late than never, the agenda needs a stimulus to give the continent a chance to achieve the water, sanitation and hygiene SDGs, hence All Systems Go Africa.

3. www.sanitationandwaterforall.org/knowledge-exchange/build-forward-better-water-sanitation-and-hygiene-solutions-sustainable-recovery

4. The AMCOW Strategy 2018-2030 calls for "an increase in coherence in the water and sanitation sector and the need to build synergies" as well as puts institutional reform, improved governance structures and efficiency and effectiveness of its own operations at the fore of its strategy. African Ministers' Council on Water, 2018, Strategy 2018-2030. [Available here](#).

5. One of the seven operational elements guiding the African Development Bank's current policy on water is an increased focus on governance and enabling environment. African Development Bank Group, 2021, Policy on Water. [Available here](#).



The relevance of the WASH Systems Approach

Box 1: A systems approach to water, sanitation and hygiene

CONCEPTS AND DEFINITIONS

Water, sanitation and hygiene system: the whole network of people, organisations and institutions (actors) plus infrastructure, resources and behaviours (factors) that deliver water, sanitation and hygiene services. The water, sanitation and hygiene system exists within the wider political economy and interacts with other sectors.

Systems thinking: the understanding that it takes a whole system to achieve a given objective, and no individual component can succeed alone. This implies working with the system's dynamic and constantly evolving nature.

Systems approach: any of a range of methodologies that use systems thinking to learn about and drive change. The common thread is an effort to make the entire system – its individual components and their interactions – more effective in achieving the desired outcome.

WASH systems approach: the understanding that water, sanitation and hygiene services are delivered and used in complex environments that interact with and influence those services, and that improvements require systemic change. A water, sanitation and hygiene systems approach prioritises institutional changes that improve the inter-link-ages between system components in view of contributing to long-term transformational change in the outcomes of the water, sanitation and hygiene system.

Adapted from Huston, Moriarty, and Lockwood, 2019

In recent years, the thinking has started to crystallise around a more explicit focus on the water, sanitation and hygiene sector as a complex system delivering water, sanitation and hygiene as a public service ([GLAAS, 2019](#)). This shift recognises the global evidence about what does work, such as professional utilities operating in a well-financed and regulated system as is seen in most countries in the global north. Successful public utilities are also increasingly found in the south, like Burkina Faso's ONEA⁶, Uganda's National Water and Sewerage Corporation⁷, vibrant city-wide sanitation initiatives like in Lusaka⁸, and an increasing number of successful small private operators. All these positive examples show us that it is possible to deliver a service – provided the building blocks of a system, such as sufficient finance, clear regulatory frameworks and competent operators⁹ and authorities, are in place. Collectively, progress across these areas complements efforts to define and strengthen the enabling environment for water, sanitation and hygiene and recognises the importance of social, political and economic factors alongside engineering inputs.

The shift comes with the understanding of a need for broader systems change to ensure evidence about what does and does not work and translate it into meaningful organisational behaviour change at multiple levels. It has led to new insights, tools and interventions that improve our capacity for systems thinking, refine our understanding of local and national water, sanitation and hygiene systems, and enhance our ability to drive systems change.

Thinking in terms of the systems necessary to deliver services is routine in health care and education, and other

6. Office National de l'Eau et de l'Assainissement. For more information, see [AMCOW \(2011\)](#).

7. National Water and Sewerage Corporation, Corporation Plan 2021-2024, [NWSC roles out new Corporate Plan 2021 - 2024 - Daily Post Uganda](#)

8. Several collaborative initiatives in Lusaka are focussed on sector strengthening. See, for example, [02-2018-Towards-citywide-sanitation-in-Lusaka_online.pdf \(wsup.com\)](#)

9. For examples, see [Dalberg Global Development Advisors \(2017\)](#).

sectors have adopted ideas from systems thinking¹⁰. IRC believes it must also become a core competence of water, sanitation and hygiene actors, at all levels.

Practical implications of systems change for Africa

IRC's systems focus over several years has led to seven points with practical implications that are relevant for the African context.

1 High level political ownership and leadership is key for driving systems change. Water, sanitation and hygiene systems that achieve universal access to water, sanitation and hygiene cannot be created in even one district let alone one country without strong and long-term political ownership and leadership. Equally, the life-cycle costs of safely managed water, sanitation and hygiene services for a district population needs a strong public governance system to ensure that no-one is left behind.

2 Understanding the system is key. Identify the stakeholders, incentives and power dynamics, both formal and informal, in a reflective continuous process with thoughtful facilitation. Understand what others are doing and engage actively and constructively with them. For example, while many players ignore them, politicians and public finance authorities are not 'external' actors but are part of the system. What they do and don't do influences the system. Recognise your own place in the system and how your work relies on others. Ask yourself questions like can my work be scaled up within the existing political economy? Am I pursuing a systems level change that can achieve a radical shift? Can my successes be sustained?

3 There are no silver bullets. No single root cause drives failure in a complex system and no single solution or innovation can solve systems-level challenges. Rather, a mix of elements (financing, regulation, legis-

lation), models (private, public, self-supply), and networks (sector review groups, learning platforms) must all be improved together and, in a manner, appropriate to each country's unique political economy. Nevertheless, there are leverage points, both at the top, such as developing strong national political leadership, and at the bottom, through demand creation and behaviour change (e.g., community-led total sanitation).

4 Good systems share similarities, but each is unique. A strong water, sanitation and hygiene system or systems change process cannot be replicated from a standard blueprint – what works in Accra may not work in Bamako. Nevertheless, functioning water, sanitation and hygiene systems around the world do share some dynamics and behaviours that promote good performance: political thought leadership, clarity of roles, transparency, accountability, adaptability and equity. Functional public service delivery systems have core functions or building blocks; who fulfils them and how is context dependent.

5 Collaboration is crucial and needs support. Leadership for systemic change often involves multiple people, agencies and organisations working collaboratively from different perspectives. Identify and nurture the right partnerships and collaborations – those with the social or political capital to make change possible at scale. Getting the politics right and daring to work outside your comfort zone with new partners beyond sector technocrats, such as politicians or civil society groups, can be a game changer. This is 'dancing with the system'¹¹ – sticking to your principles while adapting and trying new things in the dynamic and humbling environment of complexity. Sustaining active collaboration requires a change hub, an organisation or organisations committed not just to a shared vision of change but also to supporting the process to achieve that change. Hubs convene partners, coordinate communication and generate knowledge to support insight and adaptive change.

10. For a historical overview of different branches of systems and complexity sciences, see the interactive online map at www.art-sciencefactory.com/complexity-map_feb09.html.

11. The concept of 'dancing with the system' was developed by systems thinking innovator Donella Meadows, along with 14 related 'steps' for changing systems. See <http://donellameadows.org/archives/dancing-with-systems>.

6 Change means experimentation and learning. When we alter the system with an intervention – a new policy, a new business model for service delivery – things change in both expected and unexpected ways. To harness the opportunities, it is essential to create space and allocate resources for collective reflection and continual learning, supported by good monitoring. Embedding experimentation within a well-structured framework, such as a joint sector review for learning, allows the development of a shared understanding of the system and provides opportunities to catalyse change and influence its direction.

7 Systems change is slow and hard. Change is the one constant in building resilient systems. The need for systems change can be found in many places – professional associations, ministries and user groups, to name but three. What matters is that sector actors are involved and multiple perspectives acknowledged.

Learning and adaptation to bring about change are long and often disheartening processes. Don't give up because some actors are resistant, slow, incompetent or corrupt. Recognise that these problems are as much symptoms as causes of underlying systems failure – and they can be addressed through systems-level solutions like building capacity, altering incentives and auditing.

There is no inherently right or wrong water, sanitation and hygiene system, except one that fails to deliver an agreed level of services for all, forever. Systems can uphold or prevent the realisation of a society's core values; strong systems meet their obligations for human rights, reliable services and environmental protection.

Box 2: A hub for change

IRC is acting as a change hub, a facilitator for change, helping to develop a detailed picture of what successful water, sanitation and hygiene systems look like, and then asking the difficult questions about how to get there: challenging the status quo, developing tools and placing continual learning at the centre of the process. This work occurs at many levels, including globally through ongoing initiatives like the **Partnership for WASH Systems in Africa** that brings together IRC, UNICEF and Water For People and covers about 20 countries. This partnership is one of the main activities of the IRC Africa Regional Programme*.

The change hub is the structure that initiates, drives and facilitates the change we seek to achieve, though government and other local stakeholders are the final owners of the process. They are leading it and setting boundaries, direction and vision. The change process builds on the resources, competencies and capacities of local systems as the hub seeks to expand systems leadership capacity by encouraging stakeholders to view the system as a whole, reflect on what they have observed and learnt, discuss the issues with each other, find different ways of working, co-create knowledge, develop a shared vision, and take a forward-looking perspective on the issues. For more information, see Darteh et al. (2019) and Moriarty (2017).

* Current IRC focus countries are Burkina Faso, Ethiopia, Ghana, Honduras, India, Mali, Niger and Uganda. The IRC regional programme in Africa, established in 2021, is positioning itself as a regional hub for supporting regional players such as AMCOW, the African Development Bank, the Africa Water Association and their partners in driving a joint WASH system change agenda.

What will I share and learn at the Symposium?

The All Systems Go Africa symposium is dedicated to strengthening the water, sanitation, and hygiene systems—including service authorities, providers, and users—in Africa. The Symposium, hosted by IRC and partners (Conrad N. Hilton Foundation, UNICEF, Water For People, Agenda for Change, WHO, pS-Eau and Africa Water Association), will unite experts from the water, sanitation and hygiene, health, infrastructure, education, emergency and finance sectors to explore and act on opportunities to incorporate effectiveness and resilience in water, sanitation, and hygiene service delivery.

The event acts as a platform for systems thinkers and public experts to connect and challenge one another to make the changes required to achieve the ambitious water, sanitation and hygiene targets that have been set by national governments across the continent. Through a mix of high-profile panel discussions and carefully selected presentations, the event will showcase promising case studies and inject momentum into the movement to strengthen water, sanitation, and hygiene systems across the 54 countries of Africa.

There are multiple ways of working with systems and the Symposium takes a flexible and outcomes-focused approach to identifying, sharing, learning from and amplifying successes. There are also multiple ways of talking about systems, but our ultimate objective is to understand and amplify solutions that work. Our emerging theory and practice tell us that strong national and district water, sanitation and hygiene systems are required to deliver sustainable services. Symposium contributors will share cases of country or district water, sanitation and hygiene systems strengthening and describe both the key game changing ingredients and their challenges in sustaining the progress they made.

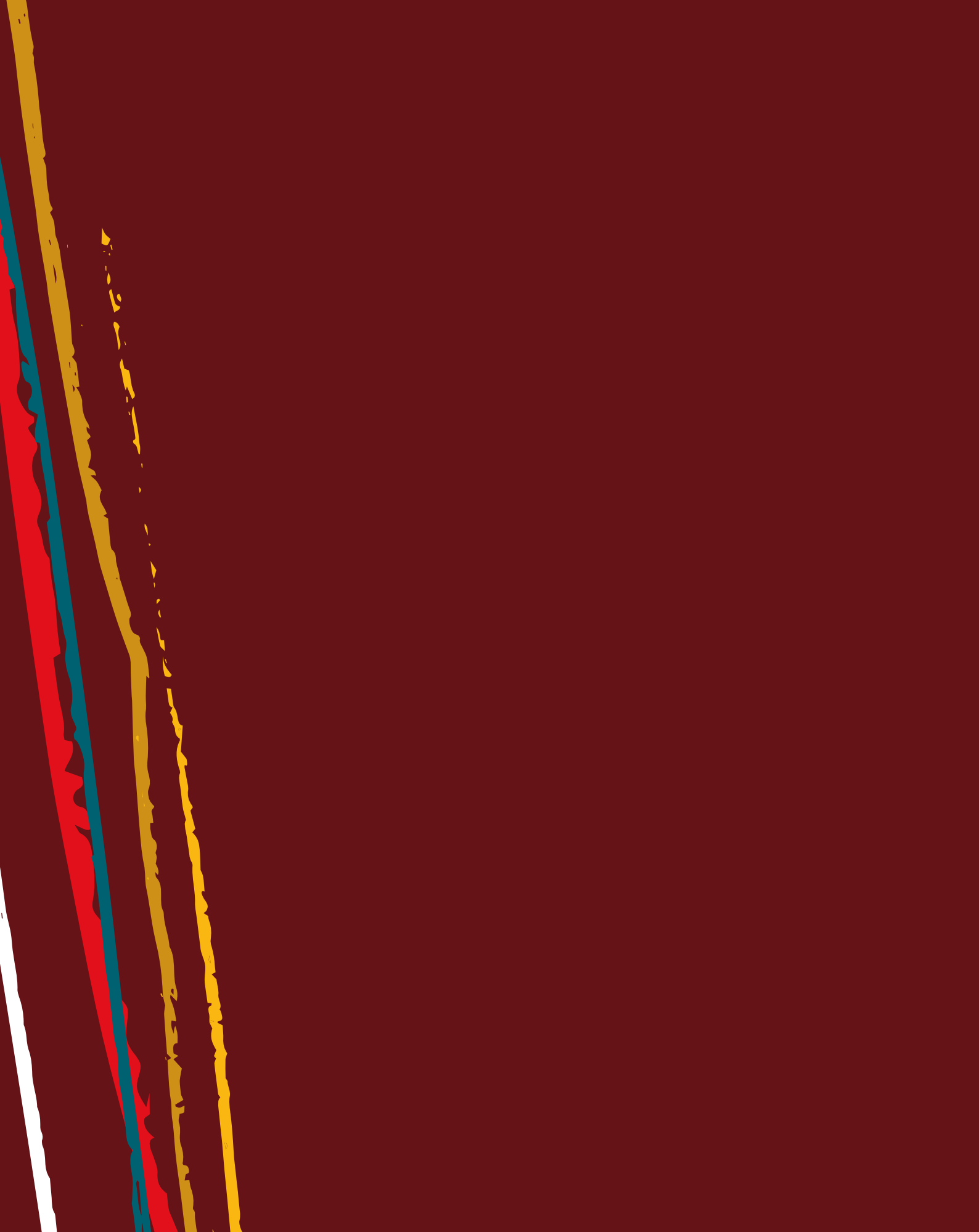
Presentations and strategic panel discussions will address political leadership and prioritisation, financing, capacity building, accountability, regulation, monitoring systems etc. The symposium will showcase examples of systems in transformation, spark discussion about what still needs to change, and promote an agenda for action relevant to everyone by jointly exploring how we can become better systems leaders. We must be confident in engaging with and supporting the strengthening of water, sanitation and hygiene systems as a whole, not just focus on our own areas of expertise. Systems are adaptive and evolve naturally over time, but purposeful change requires both leadership and collective action, to which we can—and indeed must—contribute if we want to see lasting change.

We seek to progress and move the thinking forward at this event. Participants will debate and seek solutions to critical questions.

- How can systems approaches accelerate progress in Africa towards achieving water, sanitation and hygiene targets?
- Where are the critical gaps in systems at district, national and regional levels in Africa and what are the key priorities and actions we need to take now to strengthen systems?

References

- African Development Bank Group, 2021, Policy on Water. www.afdb.org/en/documents/policy-water. Accessed September 2022.
- African Ministers' Council on Water (AMCOW) (2011) *Country status review for Burkina Faso*. www.wsp.org/sites/wsp/files/publications/CSO-burkina-faso.pdf. Accessed September 2022.
- African Ministers' Council on Water, 2018, Strategy 2018–2030. PA00XTPX.pdf (usaid.gov). Accessed September 2022.
- Dalberg Global Development Advisors (2017) *The untapped potential of decentralised safe drinking water enterprises*. <http://safewater.enterprises>.
- Darteh, B., Moriarty, P. and Huston, A. (2019) *How to use learning alliances to achieve systems change at scale*. Working paper series, Building strong WASH systems for the SDGs. The Hague: IRC. www.ircwash.org/sites/default/files/084-2019091a_how_to_paperdef_web.pdf
- DFID (2018) *Making the most of WASH 2018–2030*. WASH Policy Team, Human Development Department. London.
- Huston, A. and Moriarty, P. (2018) *Understanding the WASH system and its building blocks*. Working paper series, Building strong WASH systems for the SDGs. The Hague: IRC. www.ircwash.org/resources/understanding-wash-system-and-its-building-blocks. Accessed May 2022.
- Joint Monitoring Programme (JMP) (2021) Online database. Geneva: World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). washdata.org. Accessed May 2022.
- Lockwood, H. et al. (2016) *Bringing together the 21st Sustainable Sanitation Alliance (SuSana) meetings and the 2016 WASH sustainability forum*. Background note. WASH Symposium, Kampala, June. The Hague: IRC. www.ircwash.org/sites/default/files/kampala_wash_symposium_background_note.pdf. Accessed September 2022.
- Moriarty, P. (2017) *IRC strategy framework 2017–2030: Building WASH systems to deliver the Sustainable Development goals*. Briefing note. The Hague: IRC. www.ircwash.org/resources/irc-strategy-framework-2017-30-building-wash-systems-deliver-sustainable-development-goals. Accessed September 2022.
- UNICEF (2021) *Sustainability Check Tool: Guidance for designing and implementing Sector-Wide Sustainability Checks in WASH*. New York. [UNICEF Guidance Note on Sector-wide Sustainability Check.pdf](http://UNICEF%20Guidance%20Note%20on%20Sector-wide%20Sustainability%20Check.pdf). Accessed September 2022.
- UNICEF (2022) *Strategic Directions for WASH Systems Strengthening in the UNICEF Strategic Plan 2022-2025*. WASH Discussion Paper. New York.
- UN Water Africa, 2000, *Africa water vision 2025* www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/african%20water%20vision%202025%20to%20be%20sent%20to%20wwf5.pdf. Accessed September 2022.
- US Agency for International Development (USAID) (2014) *Local systems: A framework for supporting sustained development*. Washington, DC. <https://www.usaid.gov/policy/local-systems-framework>. Accessed May 2022.
- WaterAid (2016) *Achieving total sanitation and hygiene coverage within a generation – lessons from East Asia*. London. washmatters.wateraid.org/sites/g/files/jkxooof256/files/Achieving_total_sanitation_and_hygiene_coverage_within_a_generation_lessons_from_East_Asia_0.pdf. Accessed September 2022.
- World Bank (2017) International Comparison Program database. Washington, DC. <https://data.worldbank.org>. Accessed May 2022.



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