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THE WATER ECONOMY DIALOGUE REPORT Lusaka, Zambia



With support from:





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Introduction



In the context of the CSO Water Economy Dialogue

"The Water Economy refers to the way water resources contribute to economic development. The Water Economy is a driving force behind sustainable development,"

The Water Economy Dialogue Project in Zambia is an initiative by Africa Access Water designed at fostering a sustainable and inclusive water economy in Zambia by raising public awareness and advocate for better policies on water for productive use, while ensuring effective implementation and accountability of the Zambia Water Investment Programme by 2030.

The dialogue brings together diverse stakeholders—government entities, civil society organizations (CSOs), the private sector, and communities—to discuss, innovate, and collaborate on sustainable water resource for productive use and how this stimulates economic growth. And furthermore how it, influences sectors such as agriculture, energy, mining, tourism and other industries while addressing the pressing challenges of water scarcity, job creation and climate change.

The first dialogue focused on the civil society organizations role in advancing water economy in Zambia.

The dialogue was aimed at:

- Highlighting the economic value of water in driving development and supporting livelihoods.
- **Promote equitable water use** that benefits all stakeholders, especially marginalized groups.
- Foster cross-sector collaboration to find solutions in order to have sustainable water for productive use.
- Advance innovative policies and practices that enhance water economy specifically the implementation and accountability of the Zambia Water Investment Programme 2022 to 2030.

By creating a platform for open discussion and partnership, the Water Economy Dialogue ultimate goal is to secure water resources for generations while promoting environmental sustainability and economic growth.

The CSO Water Economy Dialogue brought together more than 25 CSOs, 2 government ministries, 2 private sector, and 3 media organizations, one academia. The Dialogue was moderated by Boniface Mumba, CEO-BCM Consultant.

Message from PS Eng. Romas Kamanga

Permanent Secretary Ministry of Water Development and Sanitation. Speech read on his behalf by **Dr. Howard Ngosa Mpamba**, *Acting Director Water Resources Development.*

"We supports the Water Economy dialogue. The Civil Society partnership and support in mobilizing resource for the Zambia Water Investment Programme is Key."

I would like to expresses my deepest appreciation to officiate at this **CSO Water Economy Dialogue** in Zambia and wish to commend Africa Access Water for hosting such an **important eventbringing together different stakeholders**. I wish to thank Segal Family Foundation for supporting AfAW in hosting this event.

The Ministry of Water Development and Sanitation is responsible for developing water resources and managing water services and therefore, we commit to supports the Water Economy dialogue in fostering sustainable and inclusive water economy in Zambia.

Civil Society partnership and support in mobilizing resource for the **Zambia Water Investement Programme 2022 to 2030** is **key**. This programme was launched by His Excellency, President Hakainde Hichilema in 2022, seeking to **raise US5.7 Billion** by 2030, creating **200,000 direct jobs** and **800,000 Indirect jobs.**

In conclusion, I would like to emphasize the importance of collaboration and integrated approaches to overcome water-related challenges, protect water resources, and ensure equitable use of water. I wish to challenge the dialogue participants to discuss the best use of Zambia's renewable water resources and I therefore, declared the civil society water economy dialogue officially open.



The Dialogue-"Significant occasion, highlighting the collective efforts towards advancing the water sector"

Message from CEO, Rodney Katongo

Chief Executive Officer, Africa Access Water

The CSO Water Economy Dialogue aligns with our third objective that focuses on **promoting water fo productive use** through research and advocacy for improved national, regional, and global policies.

We would like to thank **Segal Family Foundation** for the support towards hosting of the inaugural CSO Water Economy Dialogue as this was largely a self financing project from the sell of crops growing from AfAW project sites. We are grateful to the **Ministry of Water Development and Sanitation** for also supporting this dialogue. We also extend our thanks to **Ministry of Green Economy, the CSOs, Private sector, traditional leadership especifically headwoman shamanjinji and the media** who participated in this dialogue.

Now let me just highlight on some works we hav sone and proud giving us the confidence to speak and host the water Economy Dialogue and in pursuing our mission- to equip rural communities with solar powered **infrastructure** and systems for productive use, food security and socio-**economic development**.

We have 7 operational sites (in Mphande- Kafue, Shibuyunji and Masopo) in Zambia. Across these sites we have:

- 510 women and households who are now food secure with increased incomes and productivity year-round.
- 7,500 people with access to clean drinking water
- **1,500 animals** with access to clean drinking water.
- **30 hectares** of land brought under irrigation. a combined annual income of \$180,000 generated.
- 50 permanent jobs, 200 temporary jobs, and 100 seasonal jobs created.
- **1,720 peasant** or small-scale farmers trained in climate smart agriculture.

I wish to thank our partners that have made these projects possible - Tevel and MashaV from Israel, Baba Group of Companies, Maurice Dillon and Segal family Foundation. "We are driven by the purpose of equipping rural communities with solar-powered water infrastructure to promote productive use, food security, increased income, and improved livelihoods"



"We have to think boldly, share openly, and collaborate sincerely because the future of water in Zambia depends on the partnerships we build today."

The Dialogue

The Water Economy Dialogue Project - Background

Presented by

Rodney Katongo, CEO, Africa Access Wate**r**









The goal of this project is "to foster a sustainable and inclusive water economy in Zambia by raising public awareness and advocating for better policies on water for productive use, while ensuring the effective implementation and accountability of the Zambia Water Investment Programme by 2030."

Using different dialogue processes, we aim to:

1.HIGHLIGHT THE ECONOMIC VALUE OF WATER

- in driving development and supporting livelihoods.

Objective 1: Facilitate Multi-Stakeholder Engagement:

By 2026, conduct 8 dialogue forums to engage over 1000 stakeholders from government, CSOs, the private sector, and local communities- focusing on water for productive use policies and action.

2. PROMOTE EQUITABLE WATER USE

that benefits all stakeholders, especially marginalized groups. Objective 2: Promote Sustainable Water Use for Economic Development:

Promote the increase of water-use efficiency among users by at least 20% in targeted rural areas by implementing sustainable practices and technologies in agriculture and industry by 2030.

3. FOSTER CROSS-SECTOR COLLABORATION

- to find solutions for sustainable water economy

Objective 3: Innovate for Water Security & Economy:

Support the development and implementation of at least 2 Water Businesses and technology models to enhance job creation, food and water security thereby reducing poverty in rural communities.

4. ADVANCE INNOVATIVE POLICIES AND PRACTICES

- that enhance water economy specifically the implementation and accountability of the Zambia Water Investment Programme 2022 to 2030.

Objective 4: Advocate for Better Policies :

Ensure that at least 2 key water for productive use-related policies are put in place and strengthened to prioritize equitable access and sustainability by 2026.

Presentation One

Government Road Map:

Zambia Water Investment Programme (2022-2030) Status (Background and were we are)



"The Zambia Water Investment Programme aligns with the 8th National Development Plan (NDP), which includes four strategic areas: economic transformation and job creation, human and social development, environmental sustainability, and good governance. Launched in 2022 by the Republican President, His Excellency Hakainde Hichilema."

> **Presented by** Ms Rita Kafwena, *Ministry of Water Development & Sanitation*

The Zambia Water Investment Programme aims to make Zambia an industrialized middle-income economy by 2030.

The programme has four main expectations:

- 1. Mobilize \$5.7 billion for water security and sanitation investment.
- 2. Benefit at least 2 million Zambian citizens from economic opportunities generated by the investment.
- 3. Create about 200,000 direct jobs and 800,000 indirect jobs.
- 4. Enhance resilience through water investments.

The three focus areas of the programme:

- Water Investments to Support Economic Growth: This includes water investments for productive use and economic growth and enhancing water resource development.
- Enhancing Resilience Through Water: This involves sustainable water supply and sanitation, building climate resilience, enhancing environmental sustainability, and promoting gender and social inclusion.
- **Governance and Institutional Strengthening:** This focuses on human and institutional capacity building, financing water investments, resource mobilization, and strengthening public-private partnerships.

Key Highlights:

- A memorandum of understanding (MoU) signed between the Ministry of Water and China Power to transfer water from the Luapula River into the Kafue catchment area for economic growth.
- Formulation of the resource mobilization strategy and implementation roadmap is ongoing, with the establishment of technical working groups and delivery mechanisms in progress.

Presentation Two

Climate Change Perspective on Water Economy in Zambia



"There is need for coordinated efforts to address water security challenges amidst climate change. The national green growth strategy and the need for stakeholder cooperation to implement priority water strategies is key"

> Presented by Kasanda Bunda, Principal Climate Change Officer for Adaptation, Ministry of Green Economy and Environment.

Insights on the need to change the water economic perspective, emphasizing its long-term implications.

- Increase in temperature by 2031and 2050.
- Extreme weather events like floods and droughts were increasing in frequency and intensity.
- Total amount of rainfall might increase the variability and reduction in rain days were concerning

The implications of these changes on climate-sensitive sectors, particularly agriculture, energy and ecosystems will continue to be evident. Further challenges as a result of this are faced by human and wildlife coexistence, forest fires, and reduced water quality and availability.

Recommendations

- The need for accurate forecasting and planning to address these challenges.
- The importance of water for various sectors, including agriculture and energy, and the need for coordinated efforts to address water security challenges.
- The national green growth strategy and the need for stakeholder cooperation to implement priority water strategies.

Presentation Three

Community engagement :

The role of CSO in advancing Water Economy in Zambia



"The importance of water in achieving dignity, particularly in relation to food security, as outlined in the Universal Declaration of Human Rights and other human rights instruments is key to the dialogue."



What is the role of CSO's in water Economy?

The water economy is crucial for Zambia's development as it underpins all three pillars of sustainable development, namely the economy, society and the environment, and to its significant impact on key sectors:

- Agriculture: Water is vital for irrigation, supporting food security and rural livelihoods, as over 70% of Zambia's water use is for farming.
- **Hydropower: Around 90%** of Zambia's electricity comes from hydropower, making efficient water management essential for energy security, especially during droughts.
- **Industry:** Industries such as mining and manufacturing depend heavily on water, requiring proper management to avoid pollution and resource depletion.
- Environmental Sustainability: Effective water management helps protect ecosystems and biodiversity, while also addressing climate change impacts.
- **Public Health:** Access to clean water and sanitation is critical for preventing waterborne diseases and ensuring community well-being.

Key Highlights and Recommendations

- CSO's have role to ensure that the state meets its obligations under its human rights commitments to, Fulfil, Protect and Respect.
- CSOs are instrumental in shaping water policies and regulations through advocacy, research, and capacity building.
- CSO's should be onitoring government policies on water economy including proposing changes to policies in order to respond to the current needs.
- Capacity building for communities to protect water resources.
- CSO's should use their space to mobilize support for water investments to compliment government efforts.

Presentation Four

Capacity Building and Knowledge Transfer:

Highlighting new innovations in Zambia - FITS Hydrokinetics Project "The FITS Technology is crucial in the water-food-energy nexus in improving food security, job creation, and wealth generation, particularly in rural areas."



Presented by Dr. Emmanuel Matsika, Chief Executive Officer, *Trizet Energy Zambia Ltd*

The Role of the FITS Technology in the Realising the Water-Food -Energy Nexus

The FITS Technology is patented UK hydrokinetic innovation that delivers clean baseload energy using a platform that sits on a river with specific parameters, requiring no storage, abstraction or diversion of water. The standard generation power units consist of a 17x21 meter pontoon and can deliver power of up to 500kw. When set in an array, the units are able to deliver a combined 20MW or more.

 The beauty of the innovation is that the units can be deployed very quickly (within 6 months of order) and because they are quite robust (7 year service intervals and operated through smart IoT), they are an ideal asset for rural cooperative ownership in agriculture and job creation. This is where we see the highest utility value of the innovation.

Key Highlights

- Zambia's water resources are mostly found in rivers and underground.
- Despite this abundance, Zambia faces significant water challenges, including droughts that impact agriculture and livelihoods.
- The technology uses water to generate electricity, which also provides water for irrigation and household use. This technology, a floating unit, generates renewable energy and has a lifespan of about 50 years. It is reliable, affordable, and scalable, with the potential to produce significant amounts of power from Zambia's rivers.
- The environmental benefits of the technology is that it does not require storage, abstraction, or diversion of water, making it eco- friendly.
- The technology is resilient to droughts and fluctuating water levels, making it a climate change adaptation and mitigation solution.
- The socio-economic benefits, includes ; the creation of jobs and improvement of livelihoods in rural areas. The technology supports the water-food-energy nexus by providing power for irrigation, livestock, and domestic use, as well as enabling value addition to agricultural products.



Panel Discussion & Dialogue Recommendations

Participants and the panelist discussed several issues regarding the presentations: Some of the key interests and issues were on:

- 1. FITS Hydrokinetics technology- the technology, effective, how it works and whether it has attracted the necessary support?
- 2. CSOs collaboration and not working in isolation.
- 3. The government Ministry of Water Development & Sanitation willingness and being part and supporting of the Water Economy Dialogue.
- 4.Building synergies with different stakeholders especially the private sectors in advancing water economy in Zambia.

Recommendations

From the CSOs Side

- CSO broaden participation and active involvement in the governance and management of water resources.
- Building Coalitions and collaborationpromoting innovative sustainable projects, business models that support Water Economy creating jobs, improved food security and livelihoods in Zambia.
- CSO help mobilize communities to capitalize on available water resources and the absence of necessary facilities in some areas.

From Government Side

- Community-level investments in the waterenergy-food nexus supporting the ZWIP.
- CSOs initiating and sustaining investments and the need to involve small and medium enterprises (SMEs) to ensure commercial viability.
- CSOs seed funding and establishment of a delivery mechanism for the ZWIP, involving various stakeholders to achieve sustainable development and economic opportunities.
- Increased CSOs collaboration with government on Water Economy.

Next Step Where do we go from here?

The Water Economy Dialogue commits to fostering a sustainable and inclusive water economy in Zambia by raising public awareness and advocating for better policies on water forproductive use, while ensuring effective implementation and accountability of the Zambia Water nvestment Programme by 2030.

01

WATER ECONOMY DIALOGUE RECOMMENDATION SHARED & GOVERNMENT ENGAGEMENT

the recommendation of the dialogue will be shared with all stakeholders including the government for further engagement on the subsequent activities and matter of interest. And also the promotion of the Zambia Water Investment Programme 2022 to 2030.

02

CSO INCREASED COLLABORATION

Regular hosting of the Water Economy Dialogue (every quarter). Engage CSOs including networks and platform dealing in water thereby creating jointplans of actions.

03

PRIVATE SECTOR COLLABORATION

Engage the private sector and identify a project or business model to support as key action for the Water Economy Dialogue.

CLOSING REMARKS from Dr. Mkhuzo Chongo

Principle Water Officer, Ministry of Water Development and Sanitation.

"We are happy that this successful event is purely a Zambian initiative. This signifies the talent, ability within our country and the importance of creating wealth through water, rather than sharing poverty."

I would like to thank Africa Access Water for organizing this dialogue and lookingforward to seeing the discussed ideas implemented on the ground to help alleviate poverty and generate wealth. We happy that this success event is purely a Zambian initiative. This signifies the talent,

ability within our countryand the importance of creating wealth through water, rather than sharing poverty.

I also wish to applaud Dr. Matsika, for the FITS Technology and innovation. There is need to adopt and manufacture such technologies locally to create jobs and contribute to the country's development.

I acknowledged the positive feedback from civil society organizations and welcome partnerships to advance water security and sustainable sanitation.

I would like to invite civil society organizations to collaborate with the ministry, formalize the partnerships to ensure structured and effective cooperation.

Finally, on behalf of the Permanent Secretary and Acting Director, I would like to thank everyone and hope for more enhanced dialogues in the future, possibly involving Minister.



"In the water sector we also need sustainable models where SMEs manage the investments, and profits are shared with the community, fostering economic growth and employment."

OUR SPOTLIGHT WINDOW

Traditional Leader, Headwoman Shamanjanji



" I would like to thank the organizers of this Dialogue for inviting me to participate. I am grateful to Africa Access Water and Tevel for the solar powered water infrastructure that has been given to us and also the key hole gardens that uses less water. We now have food and income for our livelihoods. We ask for more support"

Margret Mweemba,

Headwoman Shamanjanji, Mphande Hills, Kafue District in Zambia

GALLERY





PARTICIPANTS

| | Name | Designation | Organization/ Institution |
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| 3 | Jones Banda | ню | Ministry of Water Development and Sanitation |
| 4 | Rita Kafwena | SWE | Ministry of Water Development and Sanitation |
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We would like to thank all those that played a part in making the Water Economy Dialogue happen.

We thank you for your continued support in our efforts to contribute to the Water Economy in Zambia. To **Segal Family Foundation** for the support toward this event, allowing us to decide priority activities for our organization.

To the **Ministry of Water Development and Sanitation** for the support and coming to grace the event.

To the presenters for making it happen-Kasanda Bunda - Ministry of Green Economy, Vladimir Chilinya-FIAN International Zambia, Dr. Emmanuel Matsika-Trizet Energy Zambia Ltd, Dr. Howard Ngosa Mpamba, Rita Kafwena, Jones Banda, Dr. Mkhuzo Chongo-Ministry of Water Development and Sanitation.

To the moderator, **Boniface Mumba** for helping us deliver this event. To the media teams and **rapportuers**.

To Africa Access Water team (led by Rodney Katongo, Chief Executive Officer) for the concept and coordination of the event- Isaiah Mwanza-Director Projects, Temwa Gondwe,-Communications Manager, and Siyana Zulu-Accountant.

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