Food and Agriculture Organization of the United Nations

FAO WATER DIALOGUE

REGIONAL WORKSHOP ON NATIONAL WATER ROADMAPS

22-24 FEBRUARY 2023
HARARE INTERNATIONAL CONFERENCE CENTRE AND RAINBOW TOWERS, HARARE, ZIMBABWE

SUMMARY REPORT

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Background

Water is central to agriculture, which accounts for 72 percent of global freshwater withdrawals, to other economic sectors such as energy, and to the 2030 Agenda for Sustainable Development. While there is increasing awareness of water importance, there is still a need for more effective, integrated and coordinated actions, coupled with strong political will in recognizing, valuing and managing water in a holistic and integrated manner to achieve all Sustainable Development Goals (SDGs).

To foster collective action at national level to improve water management and governance in support to the SDGs, FAO is supporting Member Countries, upon request, in the development of country-specific National Water Roadmaps through country-led dialogues and participatory processes.

For the development of National Water Roadmaps, FAO is organizing regional workshops to inform FAO Members about the overall role of water for sustainable development and to provide a platform for all stakeholders, including governments, international organizations, civil society, the private sector and academia, to discuss and develop country-specific National Water Roadmaps, taking into consideration regional and national perspectives. These regional workshops will also prepare countries for their participation and contribution to the UN 2023 Water Conference.

The first regional workshop on National Water Roadmaps focused on Africa, and was held in Harare, Zimbabwe, and virtually on the Zoom Platform from 22 to 24 February 2023. It was organized by the FAO Land and Water Division in collaboration with the FAO Regional Office for Southern Africa and hosted by the Government of Zimbabwe.

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The workshop was held over three days. It was structured in a high-level opening, five technical sessions organized along the themes of the SDG 6 Global Accelerator Framework (financing, innovation, data and information, capacity development, and governance),[1] and a closing session. The workshop was attended by ministers, senior staff of water and agriculture ministries and line agencies, representatives of international organizations, as well as civil society organizations, universities and research institutions. Overall, delegations from 34 African countries attended the workshop, including 352 participants (132 participants on-site in Harare, and about 220 participants on-line).

[1] https://www.unwater.org/our-work/sdg-6-global-acceleration-framework.

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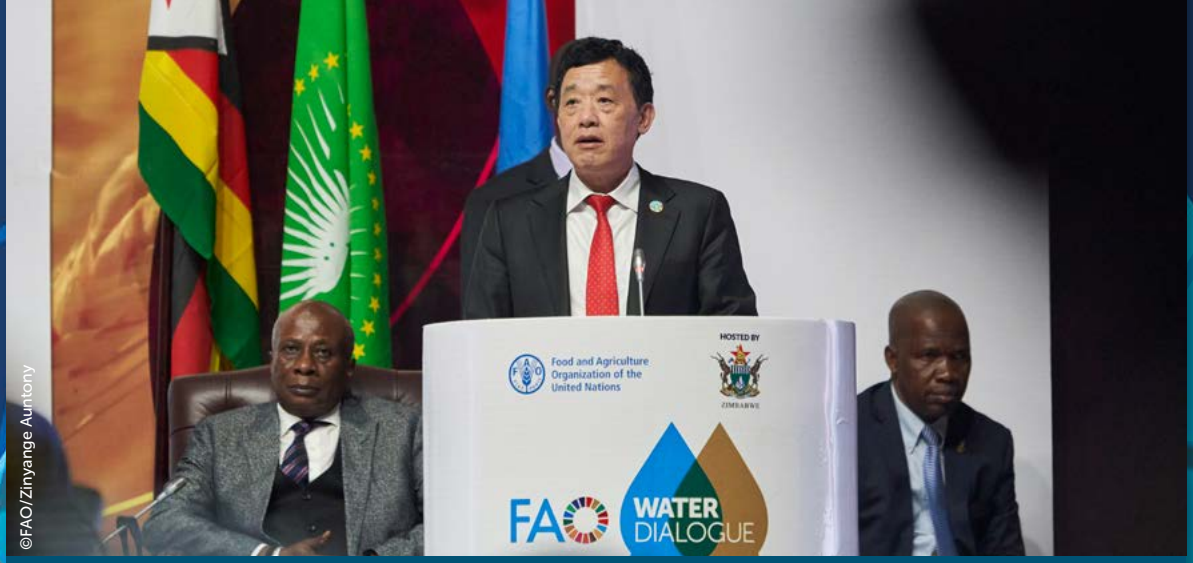

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High-level opening

The workshop was opened by the FAO Sub-regional Representative, Mr. Patrice Talla, and Chief Director, Water Resources, Irrigation Development and National WASH Coordination of the Ministry of Agriculture, Mr. Tinayeshe Mutazu, who officiated the meeting.

The UN Resident Coordinator for Zimbabwe, Mr. Edward Kallon, called water a deal maker for the Sustainable Development Goals: Water is critical to achieving the 2030 Agenda for Sustainable Development, the 2015 Paris Agreement, and the Sendai Framework for Disaster Risk Reduction. He highlighted the programmes of UN agencies in Zimbabwe towards attaining SDG 6. He concluded with a quote of UN Secretary General Mr. Antonio Guterres that the UN 2023 Water Conference in March must result in a bold water agenda that gives our world's life blood and the commitment it deserves and highlighted the importance of the National Water Roadmaps in this process.

Mr. Gilbert F. Houngbo, Chair of UN-Water and Director-General of the International Labour Organization (ILO) expressed hope that the UN 2023 Water Conference in March will be a unique opportunity to unite the world around the global water and sanitation crisis. He reminded delegates that still billions of people are without safe water supply, affecting health, food security and economies. Progress toward achieving SDG 6 is slow and with only seven years to go until 2030, governments must quadruple their commitments. National Water Roadmaps building on the SDG 6 Global Accelerator Framework will provide essential fuel for the achievement of SDG 6.

FAO Director-General, Mr. QU Dongyu expressed his appreciations to the President and the Government of Zimbabwe for hosting the workshop. He called water as the "vitamin W" and reiterated the importance of water in the achievement of the SDGs, highlighted the challenges faced in terms of water management and risk reductions in the world, and particularly in Africa. He recalled the initiatives of FAO, such as the Global Framework on Water Scarcity in Agriculture (WASAG) and the water productivity data portal - WaPOR, and

stressed the importance of the National Water Roadmaps as a tool to address the complexity of water use and management. He further announced the support of the Government of China for the development of the roadmaps in developing Member Countries. He encouraged delegates to look at the big picture of integrated water resources management to deal with increasing competition and trade-offs between sectors, for which we need to increasingly work in partnerships. He stressed FAO's commitment, announcing that water will be the theme of the next FAO Conference in July 2023.

Mr. Anxious Jongwe Masuka, Minister for Lands, Agriculture, Fisheries, Water and Rural Development, speaking on behalf of the President of the Republic of Zimbabwe, Cde Mr. E.D. Mnangagwa, presented the initiatives of the country aimed at improving the access to the resource by the people, even in the most remote villages, through a set of measures including better groundwater management, increased access to credit, and improved technology for water use.

Finally, Mr. Vangelis Peter Haritatos, Deputy Minister for Lands, Agriculture, Fisheries, Water and Rural Development of Zimbabwe gave the vote of thanks, appreciating all guests present. He alluded that the participants would come out of this conference stronger, more united and with a clear roadmap towards the resolution of water, sanitation and hygiene challenges currently militating against the realization of full and all- encompassing socio-economic development on the continent. He outlined five themes for deliberations for the upcoming UN 2023 Water Conference.

Keynote presentation

In his presentation on National Water Roadmaps, Mr. Lifeng Li, Director of the FAO Land and Water Division, took the audience on a tour through global commitments on water and the environment from 1992 to date, culminating in the SDG 6 Global Accelerator Framework. Mr. Li explained the concept of the National Water Roadmaps as an avenue for countries to accelerate progress toward achieving the SDGs through better water management and governance.

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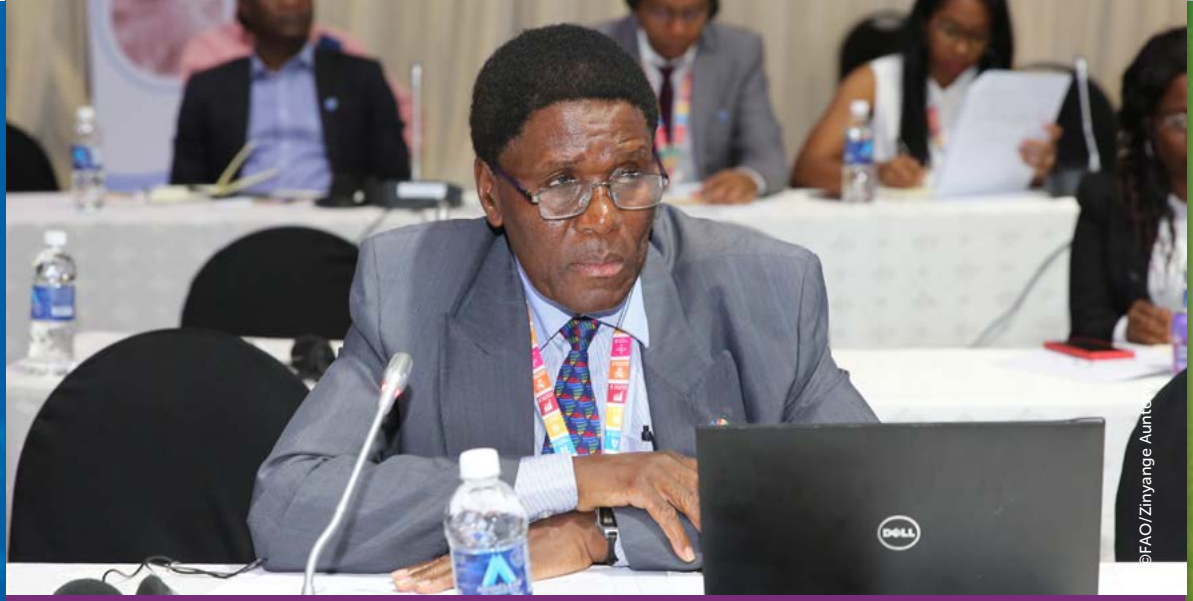
High-level roundtable on national perspective on water sector planning

The representative of South Sudan presented the successes and challenges of his country, including the tremendous support from development partners and the international community for the development of their WASH infrastructure, capacity building and scholarship programmes. He flagged the need for a Water, Sanitation and Hygiene (WASH) policy as well as the need to address siltation of major water bodies which poses a significant threat to the country's future water security.

The representatives of Egypt gave a brief rundown of the strides the Egyptian government has made in ensuring the availability of water to its population as well as in mitigating the effects of climate change. Egypt revealed that their Water Strategy was reviewed more than 20 years ago, which has been long overtaken by events. Egypt indicated its need for assistance in capacity building and climate mitigation.

The Minister from Cabo Verde revealed that the island nation was struggling with pollution of their water bodies and so was facing WASH problems. He however mentioned the Cabo Verde government was on schedule to desalinate sea water in order to make it potable.

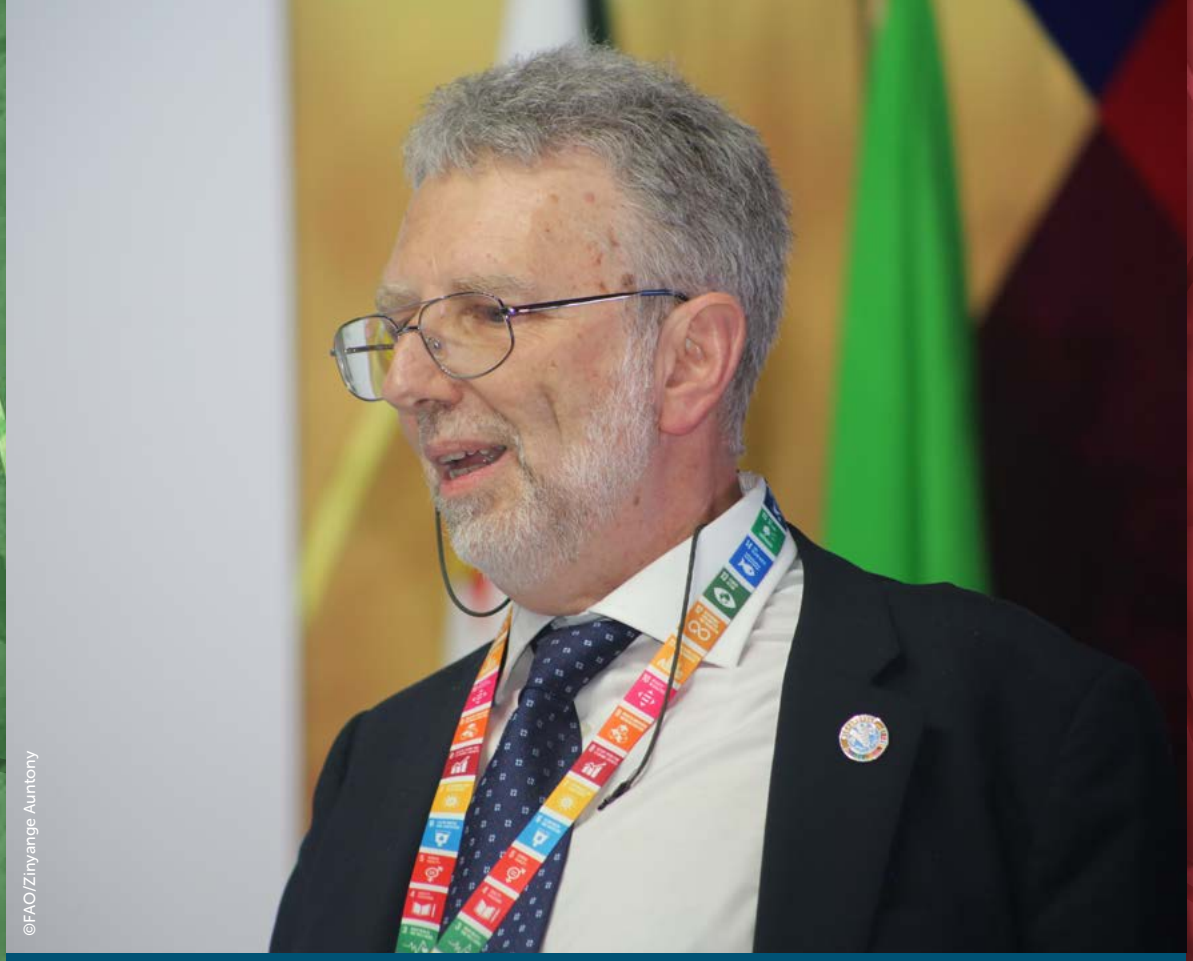


Session on financing accelerator

The session was organized by the Global Water Partnership – Southern Africa and facilitated by Remiguous Makumbe.

The keynote by Mr. Ahmed Eldaw from the African Union Commission, intended to put a value to the funding required to achieve SDG 6 targets and provide outlined pathways to mobilizing the funding target of 30 billion USD annually. He also highlighted the close linkages between water issues, improving investment and the economic development of a country and continent as a whole. The Africa Continental Investment Program (AIP) was adopted by the heads of state at the African Union. The AIP is tasked with presenting a report at the UN 2023 Water Conference to be held in March. The report will highlight major pathways to mobilize funding, catalyzing country led investment, additional sources of funding, as well as an action plan with targets and next steps in addressing the water financing gap in Africa. Mr. Mkhuzo Chongo from the Ministry of Water in Zambia outlined the key features of the Zambia Water Investment Programme, its investment focus areas as well as funding sources. Daniel Zimmer (Climate KIC Holding BV) presented the financing initiatives of the WASAG Working Group on Finance. He stressed the need for integrated financing concepts and shared main barriers to accessing funds: inadequate market infrastructure, weak project pipelines, and unquantifiable financial risk.

Conclusions and recommendations: The continent of Africa requires an annual investment of USD 30 billion per year to meet the SDG 6 goal by 2030. AIP estimates that given current investments of USD 10-19 billion per year, there is an annual investment gap of USD 11-20 billion in the region. Africa needs to improve water infrastructure for all water use purposes. Investment will need to prioritize countries' needs, and to see water as central to all economic activities and development linkages between the water sector, climate, food and biodiversity. De-risking and reward sharing mechanisms are needed to improve private sector investment in the WASH sector.



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Session on data and information accelerator

The session was organized by FAO and facilitated by Mr. Riccardo Biancalani, FAO Project Coordinator. In his intervention, he noted that the response rate to the FAO AQUASTAT system has been relatively low in both Northern and Sub-Saharan Africa from 2018 up to 2021. He also stressed the importance that data are collected and managed in a way that they are useful for the country and the communities who collect them, and how this is essential to be able to build a sustainable data collection and management system.

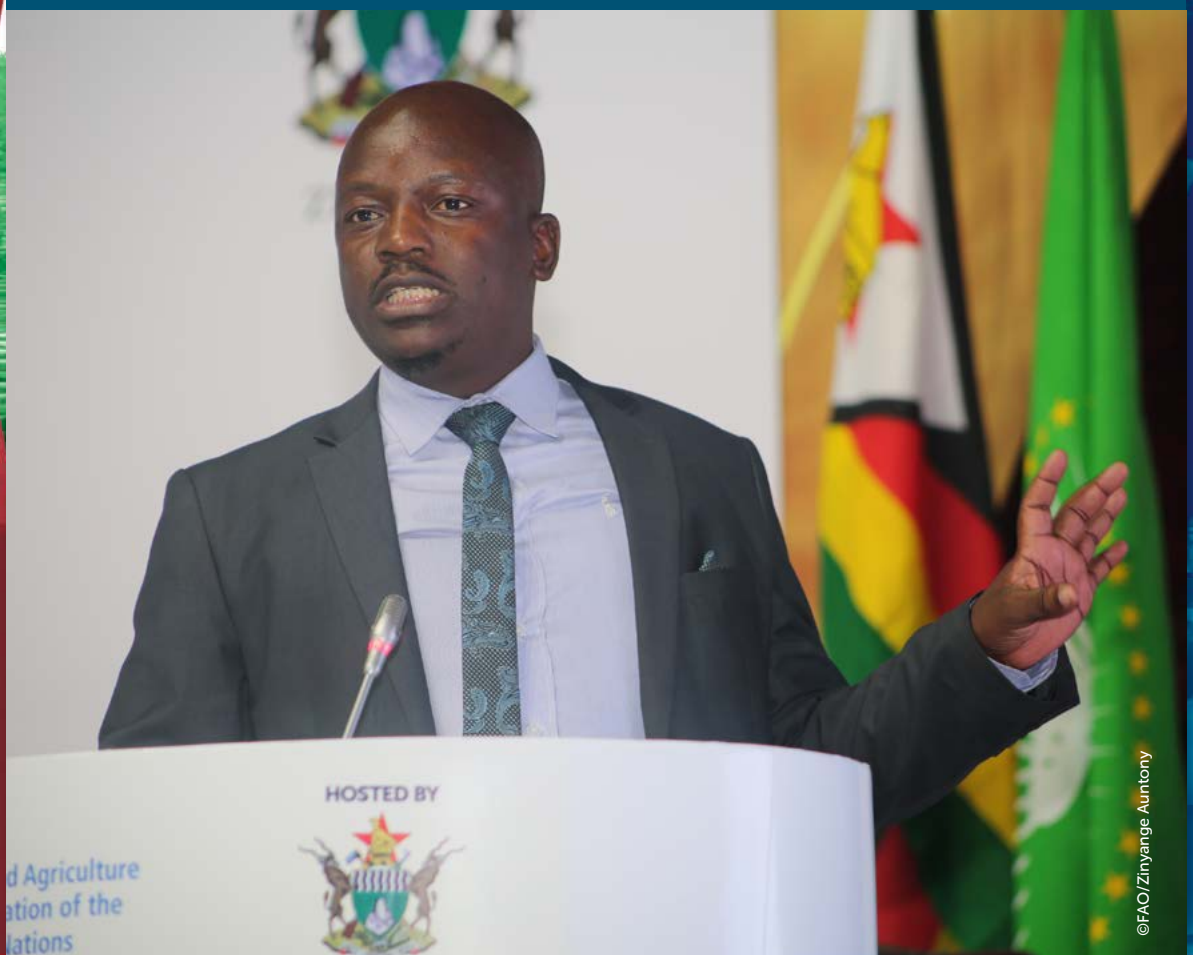
Mr. Patrice Leumeni Noutadieu, Senior policy officer at the African Ministers Council on Water (AMCOW), illustrated the mandate of AMCOW of monitoring the water use through the WASSMO tool, with a specific attention to WASH issues. He described the data collection process at WASSMO, highlighting the role of Member States and the relevance of the capacity building activities.

Mr. Nesbert Shirihuru of the National WASH Coordination described the Rural Water Information Management System of Zimbabwe, indicating that, after a period of test, it is now working and enabling data management, sharing of information and connection among stakeholders. Its most recent version allows real-time data collection with the capacity to transfer information to users in case of emergency.

Mr. Eric Tardieu, Secretary General of the International Network of Basin Organizations, stressed the importance of capacity development in order to build ownership and create the conditions for sustainable and fruitful data collection and management. This is particularly relevant to ensure that the data collected are then used to improve water use planning and management. In this sense, it is particularly important that data is produced near to its potential users.

Prof. Japhet J. Kashaigili of the Sokoine University of Agriculture of Tanzania highlighted the technical, financial, and other kind of challenges, such as vandalism, that hamper the establishment of a fully functioning data collection system in Africa, calling for country-tailored initiatives to overcome them.

Conclusions and recommendations: In general, insufficient funding and lack of institutional support are the main limiting factors toward establishing a functioning data collection system in Africa. These lead to inadequate policies and regulations, which in turn make the creation of a knowledge-based water management capacity in the continent even more difficult. While improving technical capacity and the access to appropriate technologies remains essential, raising the awareness of the benefits of having more and better information, fact-based, is an essential instrument to tackle both the financial and the institutional constraints. The National Water Roadmaps may provide the appropriate framework for establishing such linkage between data, water policies and planning, and decision making.



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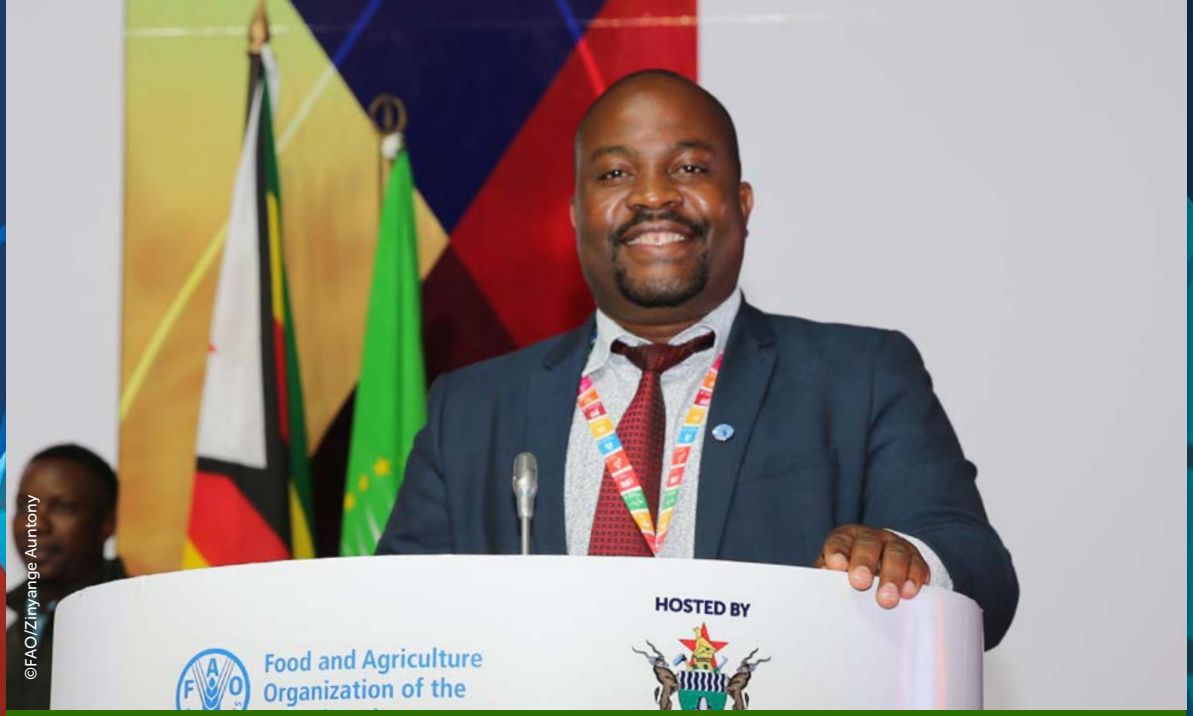

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Session on innovation accelerator

The session was organized by FAO and facilitated by Mr. Valere Nzeyimana from the FAO Regional Land and Water Office of Africa.

Prof. Bancy Mata from the Jomo Kenyatta University, Kenya, presented innovations in promoting water management and irrigation from Kenya. Prof. Bancy focused on management innovations such as enhanced aquifer recharge and water harvesting, and solar irrigation. He also talked about governance innovations such as making policies and regulations clearer and more applicable for water users. The uptake of innovation is a challenge, and empowering farmers through supporting farmer-led irrigation can help to overcome it. Prof Bancy highlighted the work of association of irrigation acceleration as good practice.

Prof. Innocent Nhapi from Zimbabwe focused on climate-smart agricultural technologies. Prof. Nhapi pointed out that much information on innovation is around, but not readily available to farmers in spite of technologies such as smartphones. Poor extension systems and intellectual property regimes are another bottleneck to get innovations to farmers. Policies and institutions should focus on enhancing information flows and providing incentives for the adoption of innovation.

Ms. Lisa Rebelo from Digital Earth Africa, presented the range of services of the Digital Earth Africa platform, providing decision-ready knowledge products based on earth observation. Areas include water resources and flood risks, land degradation, and wetland monitoring.


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Mr. Bernard Musana from Rwanda Water Resources Board highlighted the huge potential of geospatial data to improve water resources management, certification and ecosystem restauration. However, there is little local ownership of these data. He highlighted the Nkunganire platform for citizen science to monitor soil erosion as well as water and soil quality. Rwanda has implemented private-sector involvement in flood control and warning with remote sensing and drone technology.

Ms. Livia Peiser from the FAO Land and Water Division presented the WaPOR database for monitoring water productivity through remote sensing. WaPOR can help understand water productivity at country level and can be used by irrigation managers and farmers to review and improve water management performance. As such, WaPOR can be a tool to support development of evidence-based National Water Roadmaps.

Conclusions and recommendations: There is an unequal access to new technologies/approaches for water management. Africa has quite a few water-related innovations but there is little effort to capture home-grown solutions. There is a need to increase agricultural production, and satisfy other requirements linked to water supply (for domestic, agriculture, industrial and mining) and sanitation, while also accounting for the needed water for the environment.

The session recommended to promote a sector wide approach to innovation and technology transfer focused at clean technologies, water storage through new practices like sub-surface dams, artificial aquifer recharging as water harvesting and lined ponds, full exploitation of freely available data (and data gathering by projects/individuals) and use of existing smart phone technology to enhance data collection and expertise exchange to enhance productivity as well as the use of WaPOR and Digital Earth Africa data to help countries craft evidence-based National Water Roadmaps. Furthermore, the session recommended promoting water policies and strategies based on best practices and proven new good practices and data and information. Existing country initiatives and indigenous knowledge (and local knowledge, which may not necessarily be indigenous) systems should be consulted to feed into the National Water Roadmaps. Finally, given the funding challenge, the establishment of a Water Innovation Fund for Africa was recommended.

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Session on capacity development accelerator

The session was organized by FAO and facilitated by Mr. Thema Gumbo (Cap-Net) and Mr. Benjamin Kiersch from the FAO Land and Water Division.

In his keynote, Mr. Gaetano Casale from IHE-Delft outlined the latest development and trends of capacity development programmes in the water sector. Capacity Development needs to focus systematically on individuals, organizations, and the enabling environment. It needs to be seen as a long-term process, including a funding strategy. Projects are too short to enable robust capacity development.

Prof. Krasposy Kujinga from Waternet presented experiences in capacity development in practice in Southern African Development Community (SADC) countries. The Waternet network has successfully set up a regional MSc. Programme in the region. Funding is a challenge, and private sector engagement needs to be leveraged.

Mr. Riccardo Biancalani (FAO) gave an overview of the Integrated Monitoring Initiative (IMI) SDG 6 capacity development programmes, including guidance on data collection and reporting, face-to-face support, online support, data and progress reporting.

Mr. Klas Moldeus (UN-Water) presented the UN-Water SDG 6 Capacity Development initiative, a coordination platform for the UN-Water system in support for countries. The platform is coordinated by UNDESA and UNESCO with 35 institutional members, with a view to provide targeted support to countries to develop national capacity development plans.

Conclusions and recommendations: There is a need to develop and implement long-term strategies for capacity development, tap into innovative financing sources for capacity development such as bonds, and focus on institutional knowledge management in light of the high staff turnover. Novel methodologies such as social innovation and Citizen Science should be included in CapDev strategies. CapDev strategies are key instruments to addressing the complexity of water issues. Strategies should be multidisciplinary, from individual to institutional and societal change, long term, systemic, and require local ownership. They need to be adaptive, long-term (not fitting a project approach) and systemic (across all water related sectors) in order to provide a long-lasting impact to accelerate achievement of the 2030 Agenda and beyond.

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Session on governance and tenure accelerator

The session was coordinated by FAO and facilitated by Mr. Benjamin Kiersch (FAO) and Ms. Jessica Troell (Environmental Law Institute).

In his keynote, Prof. Emmanuel Manzungu (University of Harare) gave a brief background on water tenure and governance towards achieving SDGs. Since 80% of Sub-Saharan African smallholder farmers have been practicing farmer led irrigation, the water governance and tenure systems must be adjusted to speak to the needs of smallholder farmers because of the bearing it has on their livelihoods. Integrated Water Resources Mangement (IWRM) has been adopted across Southern Africa, and SADC countries lead the way in incorporating IWRM in legislation.

Ms. Sasha Koo-Oshima, Deputy Director of the FAO Land and Water Division, presented advances on the Global Water Tenure Dialogue, which will be launched at the UN 2023 Water Conference in March, providing a forum to discuss principles for the responsible governance of water tenure. Water tenure governance is important because it has bearing on access to water, water security, infrastructure development and climate change resilience.

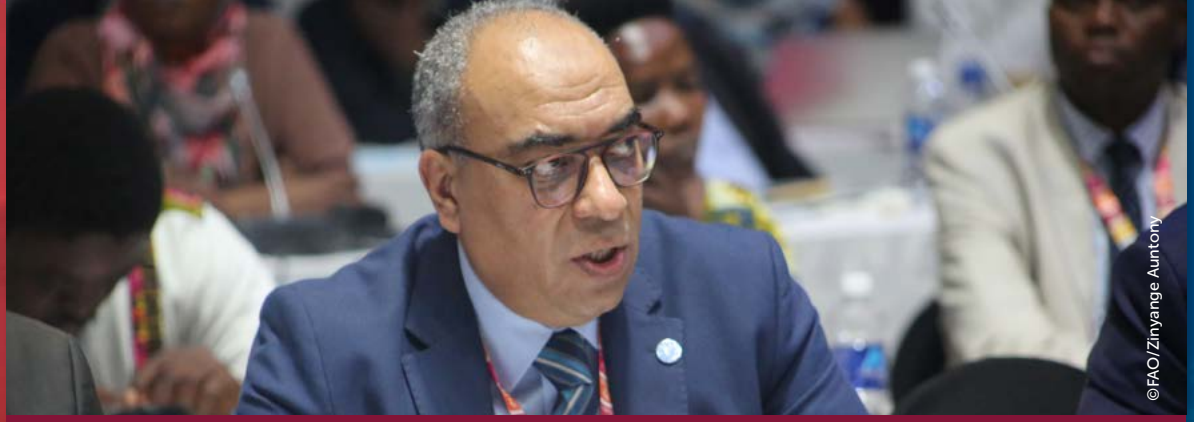
Mr. Riccardo Biancalani (FAO) discussed how datasets and indicators can support the SDG 6 Accelerators and National Water Roadmaps. He highlighted the importance of reliable data for sound decision making and water governance. He stressed that in order to have sustainability in place, water must be conjunctively managed together with other resources like land and ecosystems.

Mr. Tinayeshe Mutazu from Zimbabwe referred to the four principles of water governance. Women must be at the center of water development. He presented water allocation policy in Zimbabwe. Since water does not respect national boundaries, transboundary water governance is an important topic – the SADC protocol provides a basis.

Mr. Patience Mukuyu from the International Water Management Institute (IWMI) South Africa, noted that data collection should be outcome oriented. Data sharing is challenging, and robust data systems are important for transboundary basins. Lack of funds for monitoring systems results in data gaps, some, but not all gaps can be filled by remote sensing.

In her introduction to the panel discussion, Ms. Jessica Troell (Environmental Law Institute, ELI) noted that legal rights to water provides an essential basis of tenure security. Water tenure can only be inclusive with the explicit inclusion of women - water governance is often gender-blind. Stronger governance capacity is needed. Regulatory rules and laws often impose burdens on local communities to access water. Ms. Jennifer Molwantwa (Water Research Commission, South Africa) pleaded for a recognition of customary tenure arrangements, saying that "if we don't take customary tenure into account, we leave people behind". Mr. Kudzai Chatiza (Development Governance Institute, Zimbabwe) stressed the importance of local government's role in building water security and safe sanitation and the need to empower local institutions. Ms. Barbara van Koppen (IWMI South Africa) underlined that water tenure is not a goal on its own, but a concept that can help achieve water security. Water laws should focus on regulating high-impact users, such as hydropower, industry, commercial agriculture. Mr. Hans Komakech (Nelson Mandela Institute Tanzania) highlighted the importance to respect customary water tenure systems, particularly smallholder farms.

Conclusions and recommendations: The session concluded that insufficient water tenure governance, results in insecure access to water of legitimate water rights holders, lower food security, low investment in infrastructure, and difficulties to respond to challenges such as re-allocation due to climate change impacts or evolving needs in an equitable and transparent manner. Furthermore, institutions and laws governing water resources are scattered, mandates overlap, and coordination is insufficient. The session recommended that countries should create multi-disciplinary, multi-sectoral and multi-stakeholder coordination platforms to facilitate national and sub-national dialogues on responsible water tenure governance. This should include (i) defining principles for responsible governance of water tenure, (ii) recognizing customary water tenure systems, also in conjunction with land, forests, and fisheries rights, and (iii) adequate empowerment of local (pluri-functional), decentralized institutions. Countries should strengthen the enabling environment (water policies, regulations and implementation frameworks) including capacity development at all levels, to implement agreed principles on water tenure governance, and provide for regular review and reform. Finally, it was recommended to set up and strengthen locally developed and comprehensive monitoring systems of water uses and users for decision support.



Statements by countries

The session was facilitated by Mr. Benjamin Kiersch (FAO) and Mr. Valere Nzeyimana (FAO).

All participating country delegations reflected on good practices identified that could be part of National Water Roadmaps, challenges that need to be addressed, recommendations to countries, improvements to water governance and management from FAO and civil society, as well as interest and commitments to take part in the National Water Roadmaps exercise, and the global dialogue on water tenure.

In total, delegates from 34 countries took the floor. Many countries highlighted the progress made on water sector policies, strategies or master plans. Advances were made in several countries to take the river basin as basis for water resources plans. However, implementation remains a challenge for most countries. Several countries highlighted the need to strengthen governance structures, laws and institutions to implement water related policies, and to safeguard the access of all water users, including smallholders. The need to involve all sectors with a stake in water resources, such as agriculture, energy, industry and environment, was also stressed by several countries. Some countries mentioned the important role of solar energy to improve water availability in rural areas. A recurring theme was the need for long-term capacity development strategies for the water sector, encompassing persons, organizations, and the enabling environment. Many countries stressed the need to strengthen monitoring and information systems for water resources, and regularly update data on water resources availability and use. Some countries noted the advances of strengthening water resources information with remote sensing.

Many countries welcomed FAO's National Water Roadmaps initiative. Nineteen countries expressed actual or potential interest to participate in the preparation of a National Water Roadmaps, including Angola, Cameroon, Cabo Verde, Chad, the Comoros, Democratic Republic of the Congo, Eritrea, Ethiopia, the Gambia, Kenya, Liberia, Malawi, Namibia, the Niger, Nigeria, Rwanda, Senegal, South Sudan, and Zimbabwe. Egypt showed interest in hosting a regional training center on water resources.

Furthermore, several countries showed interest in holding or participating in national and regional consultations in the framework of the global dialogue on water tenure. These included Chad, the Comoros, the Gambia and Nigeria.

Closing session

Mr. Nesbert Shirihuru, Acting Director, National Water, Sanitation and Hygiene Coordination Department, Ministry of Lands, Agriculture, Fisheries, Water and Rural Development, and coordinator of the rapporteur team, summarized the key messages that emerged from the workshop:

- **Water is at the core of sustainable development agenda.**
- **There is an urgent need to manage the water-food-energy ecosystem.**
- **More data and information are needed, as we cannot manage what we don't know.**
- **A robust financing mechanism should be set, for all the aspects of water management.**
- **There is a need for country-led, participatory process to develop "National Water Roadmaps" to accelerate progress towards SDG 6.**

Mr. Lifeng Li, Director of the Land and Water Division, thanked the delegations for their active participation, the FAO team in Harare and Rome for an efficient organization of the workshop, and the Government of Zimbabwe for hosting the important event. Throughout this workshop, FAO appreciated the country's contributions and sharing of national perspectives and planning processes, including best practices and challenges. The recommendations will be brought to the UN 2023 Water Conference in New York in March 2023. The National Water Roadmaps initiative will be presented in a dedicated side

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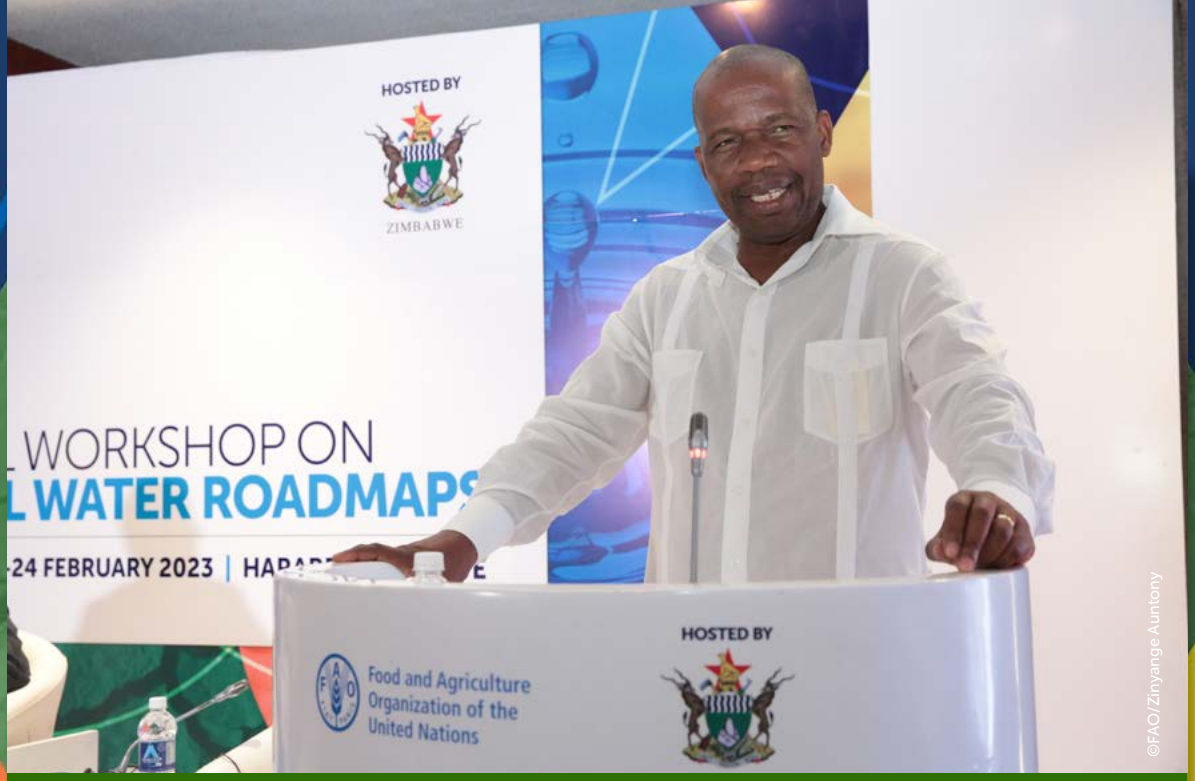

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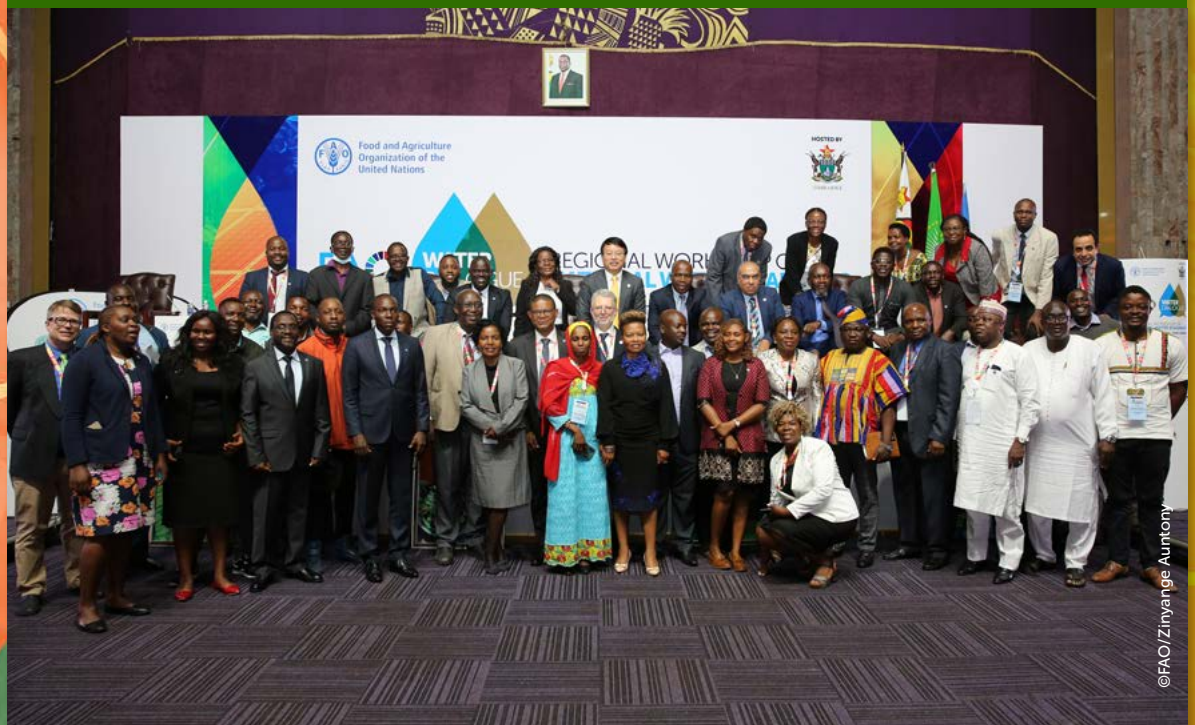
event during that Conference, and FAO will be involved in many other joint side events planned at the Conference. Mr. Li reminded delegates of the opening remarks of FAO'S Director-General, who announced that water is now one of the FAO's priorities. Water will also be the theme of the FAO Conference in July 2023 and of the Governing Bodies in the next two years. Mr. Li invited countries to engage with FAO and to continue the FAO Water Journey.

Mr. Tinayeshe Mutazu, Chief Director of Water Resources, Irrigation Development and National WASH Coordination of the Ministry of Agriculture of Zimbabwe thanked the delegates and high-level participants for their active participation, as well as FAO for the organization. He thanked the team behind the scenes, hotel staff, media, interpreters, as well as the organizing team. He concluded by saying that we meet to part, and part to meet. "All good things come to an end". With these words Mr. Mutazu declared the workshop closed.



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