

Welcome Note

This newsletter is a special edition on the 19th WaterNet/WARFSA/GWP-SA Symposium which will be held in Livingstone, Zambia, 31 October—2 November 2018; The Symposia have been held annually in the Eastern and Southern African regions for the past 18 years to promote interaction among policymakers, academics, practitioners from water and related sectors, and cooperating partners. Together, they identify regional issues, gaps and priorities that require further research and support. Great emphasis will be placed on integration of knowledge, particularly involving scholars from the natural and social sciences.

Also in this issue:

- ◆ Welcome Message from the Local Organising Committee Chairperson of the 19th WaterNet/WARFSA/GWP-SA Symposium, Dr Edwin Nyirenda
- ◆ Institutions Behind the 19th Waternet/WARFSA/GWP-SA Symposium
- ◆ Meet the Local Organising Committee members for Symposium 19
- ◆ Sponsors for the 19th WaterNet/WARFSA/GWPSA Symposium
- ◆ Regional Masters Program in IWRM
- ◆ Short Professional Courses
- ◆ Upcoming Events

The 19th WaterNet/WARFSA/GWP-SA Symposium will be held in Livingstone, Zambia, from 31 October – 2 November 2018 under the theme “Integrated Water Resources Development and Management: Managing Water for the Future in a Changing Environment in Eastern and Southern Africa”. The University of Zambia is the lead host of the 19th WaterNet/WARFSA/GWP-SA Symposium.

This year, like last year, the sub-themes of the Symposium have been aligned to those of the SADC Research Agenda under the Regional Strategic Action Plan on Integrated Water Resources Development and Management Phase IV. The main objective of the SADC Research Agenda, is:

- Promoting evidence-based implementation of SADC water programmes and projects through multi- and inter-disciplinary research, and synthesis of existing and new information, which will lead to a realisation of SADC developmental goals.

The sub-themes of the 19th WaterNet/WARFSA/GWP-SA Symposium will be as follows:

- Development and Sustainable Implementation of Resilient Water Infrastructure
- Water for Health, Livelihoods and Economic Development
- Water Governance and the Human Right to Water
- Water, Land, Energy and Agriculture
- Surface and Groundwater Resources Management and Urbanization
- Water, Ecosystems and the Environment

The Symposium includes 9 special sessions with a focus on addressing various water related challenges.

Welcome Message from the Local Organising Committee Chairperson of the 19th WaterNet/WARFSA/GWP-SA Symposium

Dear Participants



The University of Zambia in Collaboration with the Ministry of Water Development, Sanitation, and Environmental Protection are greatly honoured to be the host of the 19th WaterNet/WARFSA/GWP-SA Symposium. Preparations for this biggest water event on the water calendar in the region have been going for the past one year since we were confirmed the host of the 19th WaterNet/WARFSA/GWP-SA. In 2007, Zambia had the first opportunity to host the 8th WaterNet/WARFSA/GWP-SA Symposium. We deem this a great and rare opportunity for us to host this international event for the second time. We are grateful to the support which the local organising committee has received from WaterNet and the Government of Zambia in organising and planning this event. A number of organisations have supported in the planning of this event in cash and in kind. A lot of effort has been put into the planning of this Symposium and we are confident this year's showcase will be a resounding success and that your participation is meaningful and your objectives met.

The theme for this year's Symposium is "Integrated Water Resources Development and Management: Managing Water for the Future in a Changing Environment in Eastern and Southern Africa". The main theme and its six sub-themes have been aligned to the SADC Research Agenda under the Regional Strategic Action Plan on Integrated Water Resources Development and Management Phase IV. This Symposium will demonstrate the extent to which ongoing research in the region is contributing to the

main objective of the SADC Research Agenda of "Promoting evidence-based implementation of SADC water programmes and projects through multi- and inter-disciplinary research, and synthesis of existing and new information, which will lead to a realisation of SADC developmental goals".

Livingstone is the place selected for the 19th Symposium. A place endowed with magnificent natural beauty and graced with one of the Seven Wonders of the World, the Victoria Falls, known in local language as Mosi-oa-Tunya, meaning "*the smoke that thunders*". David Livingstone, the Scottish Missionary who once passed by the Falls during his life time could only marvel at the breath-taking falls and said "*...scenes so lovely, must have been gazed upon by angels in their flight*". The Victoria Falls presents a spectacular sight of awe-inspiring beauty and grandeur on the Zambezi River and is also known as the greatest curtain of falling water in the world. Participants will have a rare opportunity of visiting the Victoria Falls as well as to have a boat excursion along the Zambezi.

We look forward to having policymakers, academia, practitioners, the private sector and cooperating partners from water and related sectors attending this Symposium and use this opportunity to share cutting-edge research solutions, debate implementation of policy and networking between and among peers.

On behalf of the University of Zambia, the Government of Zambia through the Ministry of Water Development, Sanitation, and Environmental Protection, and the Local Organising Committee (LOC), I would like to thank our sponsors who have contributed in various ways, i.e. financially, materially and through the provision of certain services towards the hosting of this event. We are particularly thankful to the Water Resources Management Authority (Zambia), AU/NEPAD SANWATCH, Zambia Electricity Supply Corporation (ZESCO), Lusaka Sewerage Company Limited, World Wide Fund for Nature, Zambia Country Office, National Water Supply and Sanitation Company (NWASCO), Zambia Environmental Management Agency and Bundesanstalt für Geowissenschaften und Rohstoffe (BGR).

I warmly welcome you ALL to the 19th WaterNet/WARFSA/GWP-SA Symposium, and invite you to explore our beautiful City of Livingstone and its environs.

Dr Edwin Nyirenda
Chairperson: 19th WaterNet/WARFSA/GWP-SA Symposium LOC

Institutions Behind the 19th Waternet/WARFSA/GWP-SA

The organisation of the 19th Symposium has been an institutional team effort. Deepest appreciation goes to the annual symposia organisers and funders, i.e. WaterNet, the Government of the Netherlands through the Directorate-General for International Cooperation (DGIS), the IHE Delft Institute for Water Education, the Global Water Partnership Southern Africa and the International Association of Hydrological Sciences.

WaterNet



WaterNet is a regional network for capacity building in Integrated Water Resources Management (IWRM) in Eastern and Southern Africa, with a

membership of 79 university departments and research institutions in fifteen countries. WaterNet is a Southern Africa Development Community (SADC) subsidiary institution for human capacity development and its major aims are to build institutional and human capacity in IWRM through training, education, research and outreach by harnessing the complementary strengths of member institutions in the region and elsewhere.

The Vision of WaterNet is:

- “Ensuring a future in which the SADC and East African Community (EAC) regions have the institutional and human capacity to educate their own water managers, both new graduates and lifelong learners, capable of contributing to the equitable sharing and sustainable utilisation of water resources for poverty alleviation, economic development, human wellbeing and environmental security.”

The Mission of WaterNet is:

- “to achieve a sustainable and deep impact upon institutional and human capacity in Eastern and Southern Africa in the field of IWRM through training, education, and research, by harnessing the complementary strengths of institutions in the region”.

Directorate-General for International Cooperation (DGIS) – The Government of the Netherlands

WaterNet has received much financial support from DGIS for all its programmes including the annual symposia. All the Phases of WaterNet, i.e. I, II, III and IV (the current one) have been supported by DGIS. DGIS is responsible for development cooperation policy and for its coordination, implementation and funding. An important DGIS focus is coherence between Dutch and EU policy on developing countries. In order to formulate and carry out development policy, the Netherlands works with the governments of other countries and with international organisations such as the UN, the World Bank and the EU. Civil society is another important source of partners, which include non-governmental organisations and interest groups such as the employers' confederation, VNO/NCW, and the small and medium-sized enterprise lobby group, MKB-Nederland. >>>

DGIS themes include gender, AIDS, education, sustainable economic development and the environment.

IHE Delft Institute for Water Education



WaterNet has partnered and received technical support from IHE Delft Institute for Water Education. IHE has actively taken part in the annual symposia since its inception in 2000.

IHE Delft Institute for Water Education is the largest international graduate water education facility in the world and is based in Delft, Netherlands. The Institute confers fully accredited MSc degrees, and PhD degrees in collaboration with partners in the Netherlands. Since 1957 the Institute has provided graduate education to more than 15,000 water professionals from over 160 countries.

IHE Delft is instrumental in the strengthening of efforts by other universities and research centres in increasing knowledge and skills of professionals working in the water sector. The knowledge and services of IHE Delft in human and institutional capacity-building are vital to the achievement of Sustainable Development Goals, especially SDG 6 (providing access to clean water and sanitation).

IHE Delft carries out three types of activities that complement and reinforce each other in the broad field of water engineering, water management, environment, sanitation, and governance. Its core activities are education, research, and capacity building, with additional functions including: Offering education, training, and research;

- Providing capacity development services, particularly for developing countries;
- Setting up and managing international networks of educational and water sector institutions and organizations;
- Serving as a policy forum for UNESCO Member States and other stakeholders;
- Providing professional expertise and advice on water education; and
- Playing a leadership role in international standard setting for postgraduate water education programmes and continuing professional education.

Since its inception in 1957, the Institute has provided postgraduate education to numerous professionals (engineers and scientists) almost entirely from developing/transitional countries, from over 160 countries. It has also graduated over 100 PhD candidates and executed numerous research and capacity development projects throughout the world. Many of the alumni have reached senior positions in their home countries upon return and remain key links in the global water network.

Institutions Behind the 19th WaterNet/WARFSA/GWP-SA

Global Water Partnership Southern Africa (GWPSA)



GWP-SA is a key partner in the organisation of the annual symposia alongside WaterNet and the IAHS.

The Global Water Partnership (GWP) is a global action network with over 3,000 Partner organisations in 183 countries. The network has 86 Country Water Partnerships and 13 Regional Water Partnerships.

The network is open to all organisations involved in water resources management: developed and developing country government institutions, agencies of the United Nations, bi- and multi-lateral development banks, professional associations, research institutions, non-governmental organisations, and the private sector.

GWP's action network provides knowledge and builds capacity to improve water management at all levels: global, regional, national and local. GWP does not operate alone. Its networking approach provides a mechanism for coordinated action and adds value to the work of many other key development partners.

GWPSA is an 'on-the-ground' network that mobilises government, civil society, and the commercial sector to engage with each other to solve water problems.

Usually those problems stem from the demands of competing water users so it's about how to manage, or govern, the resource itself. The focus is on improving the way water is managed across sectors by promoting an integrated approach.

GWP's comparative advantage is a large and diverse multi-stakeholder network that can deploy 20 years of knowledge and experience in applying the cross-sectoral integrated water resources management approach to sustainable development.

International Association of Hydrological Sciences (IAHS)



IAHS promotes the study of all aspects of hydrology through discussion, comparison, and publication of research results and through the initiation of research that requires international cooperation. IAHS Press publishes the monthly Hydrological Sciences Journal, the Red Book Series that includes proceedings of between eight and 12 symposia per year, and other more specialised publications.

IAHS maintains strong connections with the International Hydrological Programme of UNESCO and with the Hydrology and Water Resources Programme of the World Meteorological Organisation (WMO). >>>

The following International Commissions of IAHS initiate and conduct conferences, symposia, workshops, courses, and research programmes:

- International Commission on Continental Erosion (ICCE)
- International Commission on the Coupled Land-Atmosphere System (ICCLAS)
- International Commission on Groundwater (ICGW)
- International Commission on Remote Sensing (ICRS)
- International Commission on Snow and Ice Hydrology (ICSIH)
- International Commission on Statistical Hydrology (ICSH)
- International Commission on Surface Water (ICSW)
- International Commission on Tracers (ICT)
- International Commission on Water Quality (ICWQ)
- International Commission on Water Resources Systems (ICWRS)

The University of Zambia: Host for the 19th WaterNet/WARFSA/GWP-SA Symposium



The 19th WaterNet/WARFSA/GWP-SA Symposium is being hosted by the University of Zambia (UNZA).

UNZA has the mandate to do Teaching, Research, and Public Service.

The Mission of UNZA is:

- To provide relevant, innovative and demand-driven higher education for socio-economic development.

The following is the vision of UNZA:






- An Eminent University Driven by Pursuit of Knowledge, Innovation and Social Responsiveness

The Local Organising Committee

UNZA has partnered with several institutions in Zambia to constitute the Local Organising Committee for the 19th WaterNet/WARFSA/GWP-SA Symposium. These institutions include:

- Water Resources Management Authority
- Zambia Electricity Supply Authority
- Lusaka Water and Sewerage Company
- World Wide Fund for Nature, Zambia Country Office
- National Water Supply and Sanitation Council
- Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)

Meet the LOC Members for Symposium 19 and their Roles

Name	Picture	Institution and Position	Role in LOC
Dr Edwin Nyirenda		University of Zambia. School of Engineering Department of Civil and Environmental Engineering Head of Department	Chairperson
Mr. Lemmy Namayanga		Water Resources Management Authority Acting Director General	LOC advisor and supporter in the negotiations for the Symposium's venue
Dr Kawawa Banda		University of Zambia – Integrated Water Resources Management Centre C/O Department of Geology School of Mines Assistant Coordinator of the Programme	Committee Member of the LOC
Mr. Frank C. Nyoni		Water Resources Management Authority Senior Environmental and Water Quality Officer	Oversees operations of all Sub-Committees. Involved in resource mobilization from supporting institutions and procuring of Symposium venue, attire and exhibition booths
Ms Faith Chivava		GIS Analyst, Freshwater Programme, WWF Zambia Country Office	WaterNet Alumni & Chair Publicity committee
Ms Petronella Lesa		Ministry of Water Development, Sanitation and Environmental Protection	Member of Supervisory LoC overseeing operations of all Sub-Committees . Secretariat for the LOC, protocol and registration for the Symposium participants

Meet the LOC Members for Symposium 19 and their Roles

Name	Picture	Institution and Position	Role in LOC
Ms Violet Mkandawire Chikule		Water Resources Management Authority – Senior Hydro-Informatics Officer	Publicity Committee Member
Ms Mary Chibwe		Lecturer, Environmental Health Section School of Applied and Health Sciences, Evelyn Hone College, Lusaka, Zambia	Member of the Publicity Committee.
Mr. Mabvuso Sinda		University of Zambia, School of Agricultural Sciences, Department of Soil Science - Lecturer	Logistics Committee Member
Mr. Lazarus Sichone		Ministry of Water Development, Sanitation and Environmental Protection, Zambia. Senior Environment Management Officer	Member logistic committee
Mr. Masheka Goodson		Southern Water and Sewerage Company Limited Senior Regional Manager	
Eng. Chrispin Namakando		Zambezi River Authority, Zambia/Zimbabwe Water Resources Engineer	Resource Mobilisation Committee Chairperson

LOCAL SPONSORS FOR THE 19TH WATERNET/WARFSA/

The LOC has received financial and material support for the hosting of the 19th WaterNet/WARFSA/GWP-SA Symposium from a number of organisations in Zambia and beyond. The following is the list of Sponsors for the 19th WaterNet/WARFSA/GWP-SA Symposium:

Water Resources Management Authority



The AU/ NEPAD African Networks of Water Centres of Excellence



Zambia Electricity Supply Company



Lusaka Water and Sewerage Company



World Wide Fund for Nature, Zambia Country Office



National Water Supply and Sanitation Council (NWASCO)



Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)



Final LOC Planning Meeting



Left to Right: Dr Edwin Nyirenda, Prof Jean-Marie Kileshye Onema, Mr Frank Nyoni, Ms Petronella Lesa and Mr Winford Sikapula and Dr Kawawa Banda

Representative of the Local Organising Committee who include Dr Edwin Nyirenda, Dr Kawawa Banda, Mr Frank Nyoni, Ms Petronella Lesa and Mr Winford Sikapula held the last planning meeting for the Symposium at the Avani Victoria Falls Resorts. The meeting was also attended by Prof. Jean-Marie Kileshye Onema, the WaterNet Manager and Dr Krasposy Kujinga, the Programmes Coordinator for WaterNet. The meeting issues centred on the final preparations of the symposium. Issues discussed during this meeting include registration of participants, the preparedness of the hotel to host the event, adequacy of the symposium rooms to be used for the different sessions and the programme,

Regional Masters Programme in IWRM, 2018/19 Intake

The Regional Masters Degree Programme in IWRM remains central in WaterNet activities. The 2018/19 intake currently has 20 students, 10 each at the two host universities, University of Dar es Salaam and the University of Zimbabwe. The selection process for students for the 2019/20 intake has already been done and the successful candidates will be notified after ratification of the list but the WaterNet Board of Management at the end of October 2018. The selection meeting for the 2019/20 intake was done in Johannesburg on the 7th September 2018. The meeting was attended by the WaterNet Secretariat represented by Prof Jean-Marie Kileshye Onema and Dr Krasposy Kujinga and the 7 coordinators from the co-host and specialisation institutions, i.e. Dr Joel Nobert, Prof. Cosmo Ngongondo, Mr Fadli Wigiet, Dr Mangaliso Gondwe, Dr Collins Mabiza, Ms Chetty Kershani and Mr Liberty Moyo.



The selection committee: Back row, Dr Joel Nobert, Prof. Cosmo Ngongondo, Prof. Jean-Marie Kileshye Onema, Mr Fadli Wagiet and Dr Mangaliso Gondwe. Front row, Dr Krasposy Kujinga, Dr Collins Mabiza, Ms Chetty Kershani and Mr Liberty Moyo.

Short Professional Courses

WaterNet is currently undertaking a series of short professional courses for SADC Member States and River Basin Organisations within the region. The courses are being undertaken on behalf of the SADC Water Division and funded by the cooperation of the German and British Governments through the delegated authority of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. There are a total of 19 courses that will be held between April 2017 and April 2019. Some of the courses are being held in other SADC official languages, i.e. French and Portuguese.

To date the following courses have been held:

Course	Dates	Proposed City	Country	Target	Language
International Water Law and Instruments including UN articles on Groundwater	19 - 23 June 2017	Gaborone	Botswana	Member States	English
Droit international de l'eau et les instruments des Nations Unies, y compris des articles sur les eaux souterraines	22-25 Aug 2017	Kinshasa	DR Congo	Member States	French
A lei internacional sobre a água e os instrumentos das Nações Unidas incluindo artigos sobre as águas subterrâneas	19- 22 Sep 2017	Maputo	Mozambique	Member States	Portuguese
Monitoring and communicating of river water status	3-6 Oct 2017	Lilongwe	Malawi	Member States	English
Negotiation skills in transboundary surface and ground water resources management	14 – 17 Nov 2017	Dar es Salaam	Tanzania	Member States	English
Gender Mainstreaming Tools	28 Nov – 1 Dec 2017	Johannesburg	South Africa	Member States	English
International Water Law and Instruments including UN articles on Groundwater	1-3 Dec 2017	Johannesburg	South Africa	ORASECOM	English
International Water Law and Instruments including UN articles on Groundwater	12 – 15 March 2018	Ruacana	Namibia	Kunene	English
Financing of water infrastructure projects	10-13 April 2018	Johannesburg	South Africa	Member States	English
A lei internacional sobre a água e os instrumentos das Nações Unidas incluindo artigos sobre as águas subterrâneas	17-20 April 2018	Luanda	Angola	Kunene	Portuguese
Water Demand Management	5-8 June 2018	Lusaka	Zambia	Member States	English
Financement de projets d'infrastructure d'eau et de RBO	3-6 July 2018	Antananarivo	Madagascar	Member States	French
Negotiation skills in transboundary surface and ground water resources management	24-27 July 2018	Harare	Zimbabwe	ZAMCOM	English
Financiamento de projetos de infraestrutura hídrica e RBOs	21-24 Aug 2018	Maputo	Mozambique	Member States	Portuguese
IWRM Training	11-14 Sept 2018	Ondangwa	Namibia	CUVECOM	English and Portuguese
Monitoring and communicating of river water status	25-28 Sep 2018	Johannesburg	South Africa	Member States	English



Participants for the Portuguese International Water Law Training



Participants for the training on Communicating and Monitoring River Water Status



Participants for the Gender Mainstreaming Tools Training



Participants for the Water Negotiations Skills Training



Participants for the customized training for Orange-Senque Basin Commission on International Water Law



Participants for the French course on International Water Law

Training on Monitoring and communicating of river water status

The training course on Monitoring and communicating river water status, held in Johannesburg, South Africa. The course was attended by a total of 31 participants from 13 SADC countries. The main objective of this course was to:

- Enhance skills and knowledge of water managers/professionals of the SADC region in various methods and ways of monitoring and communicating river water status

The specific objectives of the training are to:

- Enhance understanding and communication processes affecting river flow and water quality and their effects.
- Enhance understanding on the importance of river flow and water-quality monitoring
- Impart skills and understanding on key elements of a river flow and water-quality monitoring programme
- Sharpen understanding of the strategies for meeting communication and information needs of river flow and water-quality assessment
- Enhance skill for designing a communication and monitoring programme
- Deepen understanding on various communication channels
- Enhance understanding on the resources required for communication and monitoring



IWRM TRAINING FOR CUVECOM

The Cuvelai Watercourse Commission (CUVECOM) was established in September 2014, after the signing of the agreement by the two states' water ministers of Angola and Namibia. As the CUVECOM is in the process of being established, it was important that officials from the member states, the Secretariat and other stakeholders have adequate understanding of Integrated Water Resources Management (IWRM) and its implementation in the basin.

The objective of the training was to introduce participants to the concept and principles of IWRM, and how IWRM can be practically applied at various scales in the Cuvelai Basin. At the end of the workshop participants were expected to have an understanding of why and how IWRM is important in the sustainable transboundary water resource management, which contributes to meeting a number of Sustainable Development Goals (SDGs). The training was conducted in an interactive manner and drew upon examples and case studies from the Southern African Development Community (SADC) region.

The target audience of the training included commissioners/ high level officials and technical team members/water managers responsible for basin planning and management and adaptation from Angola and Namibia. Participants hailed from different backgrounds including legal advisors, economists, engineers, scientists and policy makers and personnel from the Secretariat.



Participants for the CUVECOM training course

Upcoming Short Professional courses...

Title of Course	Dates	Venue	Country	Target Group	Language
Financing of water infrastructure projects	19-21 Nov 2018	Mbabane	Swaziland	Member States	English
TBA	4-8 Feb 2019	Luanda	Angola	OKACOM	Portuguese
TBA	18-22 Feb 2019	Maun	Botswana	OKACOM	English

19TH WATERNET/WARFSA/GWPSA SYMPOSIUM

Integrated Water Resources Development and Management; Managing Water for the Future in a Changing Environment

**Avani Victoria Falls Resort, Livingstone, Zambia
31 October - 2 November 2018**



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WATERnet
Building capacity for Water Resources Management in Southern Africa

Congratulations are in order

We would like to congratulate the WaterNet Manager, Jean-Marie Kileshye Onema who was recently appointed by The Higher Education National Minister as Associate Professor in the Faculty of Engineering of the University of Lubumbashi in DR Congo .

