



# VIRTUAL INTERNATIONAL CONFERENCE ON COVID-19

**“Unpacking the Science, Economics and Politics of COVID-19”**

**29 - 30 July 2021, Great Zimbabwe University, Masvingo  
Zimbabwe**

## CALL FOR ABSTRACTS

Great Zimbabwe University under the auspices of WaterNet is co-hosting an international conference on COVID-19 in partnership with the South African Water Research Commission (WRC) under the theme *“Unpacking the Science, Economics and Politics of COVID-19”*. COVID-19 has caused various challenges and problems worldwide. At least 4.5 billion people globally have been under lockdown whilst the pandemic has directly infected at least 127 million people and resulted in at least 2,78 million deaths as of 29th March 2021. Both developing and developed countries are trying to embrace the so-called ‘NEW NORMAL’ to curb the pandemic which seems to be happening in different “waves”. The economic, social and political dynamics associated with COVID-19 remain veiled in obscurity. This conference therefore seeks to unpack the science, economics and politics of the pandemic with a focus on understanding its impact on the Southern Africa region's population, health, education, agriculture, economic, business, technology and religious systems. The conference is also dedicated to understanding the practical and policy-oriented approaches in tackling the pandemic and confronting the “new normal” of COVID-19. The conference will bring together researchers, development practitioners, civil society, industry and policy makers from the region and global experts to understand the unravelling and trajectory of COVID-19 and analyse the scientific options for mitigation, containment, innovation and ultimately pre-empt the possible emergence of other future pandemics. We are calling for abstracts for papers on experiences, empirical studies, good practice and theoretical reviews on the above stated main theme.

### MAIN THEME

**Unpacking the Science, Economics and Politics of COVID-19**

## **SUB-THEMES**

The sub-themes for the conference include but are not limited to the following:

### **1. THE SCIENCE OF COVID-19**

- Characterisation of the virus; mutation, and diagnostics
- Pathogenesis, immunology and diagnostics
- Immune response and immune-genetics against COVID-19
- Epidemiological studies, modelling studies on COVID-19
- Clinical management of COVID-19
- Indigenous Knowledge Systems for COVID-19 management
- Non-pharmaceutical interventions to COVID-19
- Pharmaceutical interventions to COVID-19 (treatment and vaccinations)

### **2. HEALTH REFORM IN THE ERA OF COVID-19**

- Addressing the Risk factors for COVID-19 infection and fatality
- Revisiting medical practice in the era of global pandemics
- Revisiting the definition and articulation of health, disease, and health reform
- The use of medical and pharmaceutical products for prophylaxis
- Land use and its contribution to COVID-19 and other infectious disease
- Role of diet in promoting and preventing infectious diseases
- Non-pharmaceutical interventions and behavioural change in the era of COVID-19.
- Public health and communication during the pandemic
- Relooking at the Public Health and related policies and regulations to improve systemic response to future pandemics

### **3. COVID-19: THE NEW NORMAL**

- Governance and political leadership under COVID-19, including human rights
- Dealing with the effects of “Long COVID”
- Impacts of COVID-19 on tourism industry, informal sector and commerce.
- Technology development and adaptation to respond to and aid post COVID-19 recovery.
- COVID-19 as biosecurity concern
- New ways of working – Role of 4IR Socio-economic and cultural impacts of COVID-19, including gender-based violence and inequality
- The roles of ICTs in combating COVID-19; AI, IIoT (drone technologies, sensors, GPS, etc.) for data collection and acquisition of spatialized data, monitoring, follow-up and control
- COVID-19 and the Mining Sector

### **4. COVID-19 AND THE ENVIRONMENT**

- COVID-19 on agricultural production.
- COVID-19 and nutrition diversity
- Agricultural contributions to COVID-19 proliferations
- Water as resource for combating COVID-19
- Models of transmission of COVID-19 via water and reticulation systems
- Provision of safe water, sanitation and waste management for prevention and management of COVID-19

## 5. COVID-19 WATER AND AGRICULTURE

- COVID-19 on agricultural production.
- COVID-19 and nutrition diversity
- Preparedness and readiness – Nexus planning
- Agricultural contributions to COVID-19 proliferations
- Water as resource for combating COVID-19
- Models of transmission of COVID-19 via water and reticulation systems
- Provision of safe water, sanitation and waste management for prevention and management of COVID-19

### **Prof. dr. Amon Murwira (Host Minister and Official Opening)**



Prof. dr. Amon Murwira is the Minister of Higher and Tertiary Education, Innovation, Science and Technology Development in Zimbabwe. Before his current position, Prof. dr. Murwira was Chairman in the Department of Geography and Environmental Science at the University of Zimbabwe (UZ). Prior to this, he was an ecologist in the then Department of Natural Resources at the Ministry of Environment and Tourism. Prof. dr. Murwira is a renowned expert in Geographic Information Systems (GIS), Remote Sensing (RS) and

Global Positioning Systems (GPS). He has deep knowledge and experience in environmental monitoring and management including land, agriculture and forestry. He has wide experience in spatial information acquisition and management. Prof. dr. Murwira holds a PhD in Geoinformation Science (GIS, RS) for environmental systems analysis and monitoring from Wageningen University and International Institute for Geo-Information Science and Earth Observation (ITC) in the Netherlands.

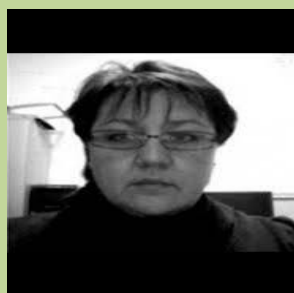
### **Professor R.J. Zvobgo (Host)**



Professor Rungano Jonas Zvobgo (PhD) is the Vice Chancellor of Great Zimbabwe University. He joined the University in 2012 after serving as Pro Vice Chancellor of Midlands `state University for 13 years. He has also served in various other leadership capacities in higher and tertiary institutions in Zimbabwe. His academic leadership and university development track record spans 38 years. He holds to his name, a Bachelor of Arts Honours degree in English, a Master of Arts degree in English, a Master of Philosophy degree and a Doctor of Philosophy degree in Education. Professor Zvobgo

is a full professor of curriculum and policy studies in Education and an internationally respected scholar who has authored several books, journal articles and conference presentations. Among his several transformational projects, Professor Zvobgo is presently spearheading the establishment of Zimbabwe's first Centre of Excellence in Dryland Agriculture in Chivi District of Masvingo Province. He has gained for himself and the university numerous accolades of excellence. He is currently a board member of the Association of African Universities (AAU), member of the Zimbabwe Universities Vice Chancellor's Association (ZUVCA) and European club of Rectors among other boards.

## Keynote Speaker (Day 1)



**Prof Natasha Potgieter** is currently the Dean of the School of Mathematical and Natural Sciences at the University of Venda, South Africa. She obtained her PhD in Medical Virology from the University of Pretoria in 2007 and has more than 30 years of teaching and training experience in the Higher Education section. She has been appointed by the University of Johannesburg, South Africa as a visiting Professor at the Water and Health Research Unit for the past 10 years. She is actively engaged in research on water, sanitation, hygiene and health related microbiology. She has led several research projects nationally and internationally and has produced several Masters and PhD graduates. She is an established scholar and a reviewer of manuscripts for both national and international journals of high scientific repute.

## Panel of Experts



**Dr Eunice Ubomba-Jaswa** holds a PhD in Microbiology from the Royal College of Surgeons in Ireland (RCSI) and an MSc in Medical Microbiology from the London School of Hygiene and Tropical Medicine (LSHTM), UK. Her areas of expertise lie in microbiological water quality and how it ultimately affects public health. Dr Ubomba-Jaswa is currently a Research Manager: Water Resources Quality at the Water Research Commission (WRC) in South Africa where she manages a portfolio of projects that deal with the thematic areas of source water pollution and protection (including both microbial and chemical emerging contaminants), water-related human health and WASH activities. Ultimately, the focus of her portfolio is to develop solutions for addressing water quality challenges in order to enhance water sector resilience and sustain development. She also supervises both PhD and MSc students registered in a number of universities in South Africa. She has co-authored over 30 publications which involve water research and sits on the Editorial board of the international journal, Integrated Environmental Assessment and Management. Her previous posts include Senior Microbiologist at the Council of Scientific and Industrial Research (CSIR) in the Water Resources Competency Area where she was technical lead on a number of EU and national parliamentary grant funded project.



**Professor J Mufunda** Professor Jacob Mufunda is the Acting Dean of the School of Medicine and Health Sciences. Prior to joining Great Zimbabwe University, Professor Mufunda was Professor of Physiology at Midlands States University. His educational qualifications include a Bachelor's degree in Medicine (MBChB) from the University of Zimbabwe and a Doctor of Philosophy degree (PhD) in Medical Physiology from Michigan State University. He is also a holder of a post graduate Certificate in Emergency Medicine from the University of Auckland, a Certificate in Global Health Diplomacy from the University of Geneva and a Master's in Business Administration from the University of Zimbabwe. Amongst other previous posts, Prof Mufunda was the Dean of the School of Medicine at the University of Zimbabwe and an Emergency Medical Officer at Thames Hospital, New Zealand. He has also served the World Health Organisation (WHO) as a Professor of Physiology at Orrotta School of Medicine and as a Research Advisor in Ministry of Health, for Eritrea from 2004 to 2008 where he assisted with the establishment of a new School of Medicine. Between 2008 and 2009, Prof



Mufunda served as the Founding Dean of the School of Medicine at the University of Namibia. From 2009 to 2010 Professor Mufunda returned to the World Health Organisation (WHO) as Professor at Orotta School of Medicine and an Advisor for Research in the Ministry of Health for Eritrea where he assisted with establishment of postgraduate Medical Training. Prof Mufunda has also served as the Head of WHO Country Office for the Kingdom of Lesotho and Sierra Leone, acting head of the WHO Country Office in Mozambique and as Senior Programme Management Officer at WHO African Regional Office in Brazzaville. In the period 2018 to September 2020, he was Professor of Physiology at the Midlands States University.

### **Keynote Speaker (Day 2)**



**Professor Godwell Nhamo** is a Full Professor and Exxaro Chair in Business and Climate Change at the University of South Africa (UNISA). He is a National Research Foundation (NRF) C-Rated researcher undertaking research in the fields of Climate Change and Governance, Climate Change and Tourism, Green Economy and Sustainable Development. Prof Nhamo has conceptualised and successfully completed eleven (11) book projects (8 edited and 3 co-authored). The most recent being, “Counting the Cost of COVID-19 on the Global Tourism Industry”. Prof Nhamo has also published over 90 journal articles. Since 2013, Prof Nhamo has graduated 10 PhDs and hosted 11 postdoctoral fellows. Currently, Prof Nhamo is leading two mega research projects on Cyclones and Floods in the era of SDGs in Southern Africa as well as SDGs for Society. Finally, Prof Nhamo was one of the four-member African Union High Level Panel drafting the Green Innovation Framework for the continent.

### **Panel of Experts**



**Dr Dube Kaitano** is an Ecotourism Management Lecturer and Researcher at the Vaal University of Technology. He is also an independent research contractor with the Institute of Corporate Citizenship at the University of South Africa and an Adjunct Physical Geography Lecturer at Monash University South Africa. He is one of the few tourism geographers in the African continent researching and publishing in the area of Sustainable Development Goals customisation and climate change within the tourism sector and tourism role players such as the aviation industry. Dr Dube has also published on agriculture and household food security. He has published locally and internationally in top accredited and rated journals. He has twice coordinated and hosted Habitable Planet Workshops (HPW) that focused on training and promoting of postgraduate training of Earth systems science, SGDs and climate change in Africa in a project that is funded by CSIR and NRF and run by ACCESS.



**Professor Vongai Zvidenga Nyawo** is the Director of Research and Post Graduate Studies at Great Zimbabwe University. Prof Nyawo holds a Bachelor of Arts degree from the University of Zimbabwe, Postgraduate Diploma in Education (PGDE) in the teaching of History and English Language from the Zimbabwe Open University, a Masters in Contemporary South African History, passed with Metlof, from the Free State University (UFS) South Africa and a Doctor of Philosophy in Land

Reform (UFS). Her research interests are in Land Reform, Food Security, Women and Food Issues, Governance, the Cold War and Beyond as well as Climate Change. Prof Nyawo has authored and co-authored articles in peer reviewed journals, chapters in books and academic books. Professor Nyawo has been a high school teacher, Head of Zoe High School in Lesotho, Publications Officer at the Institute of Southern African Studies housed at National University of Lesotho, Lecturer at Midlands State University and International Research Fellow at the University of New Hampshire, USA.



**Professor W Garira** is Winston Garira is a Professor of Biomathematics in the Department of Mathematics and Applied Mathematics at the University of Venda in South Africa . His current research is focused on multiscale modelling of disease dynamics. Multiscale modelling is a mathematical modelling approach that has the potential to provide tools for a systems analysis approach for any complex system. an active researcher in Biomathematics on the African continent currently based in South Africa. He works on multiscale modelling of infectious disease systems. Infectious disease systems typically involve processes at multiple scales, from gene to molecules to cell to tissue or organ or organism and the environment. Studies of any single scale are not sufficient to describe the complete disease system. Multiscale modelling is becoming an increasingly important approach to studying disease systems. The multiscale modelling research for his research involves formulating mathematical models intended to trace the life cycle of infectious pathogens such HIV, MtB etc. over three scales which are: within-cell scale (which involves the replication and persistence of pathogens within cells), between cells scale and the between-human hosts' scale. His research involves developing tractable predictive multiscale models of infectious disease transmission dynamics in which within-host processes (intracellular and intercellular) and infection dynamics interact both ways through inoculum size and reinfection in the initial infection stages. The overall aim of the research is to develop multiscale models of infection and treatment in which events inside of infected cells are modelled as well spread of pathogen among cells including the transmission of pathogen between human hosts.

### Conference proceedings

All presented papers will be published in conference proceedings by the Great Zimbabwe University.

### Important Dates

<b>Call for Abstracts</b>	31 <sup>st</sup> March 2021
<b>Deadline for Abstract Submission</b>	10 <sup>th</sup> June 2021
<b>Notification of Selected Abstracts</b>	24 <sup>th</sup> June 2021
<b>Registration Opening</b>	1st July 2021
<b>Close of Registration</b>	15th July 2021
<b>Deadline for Submission of Full Papers</b>	15 <sup>th</sup> September 2021

### Conference Structure

The conference will be structured into six major components:

- Opening plenary session with a keynote address and high-level panel discussion with and an invited science talk;

- Parallel sessions for oral presentation or selected research/technical papers, and case studies;
- Poster sessions aimed at displaying scientific findings, and to discuss these findings with attendees;
- Other panel and roundtable discussions with invited experts to share their perspectives on selected topics; and;
- Exhibitions of innovative products and services in line with the conference theme (scientific and non-scientific).

### **ABSTRACT SUBMISSION PROCESS**

All abstracts will be handled and reviewed electronically via the conference's EasyChair submission

<https://easychair.org/conferences/?conf=icc19>

Note that you will need to set up an EasyChair account (if you do not already have one) before you login for your submission. Kindly register as an author, all other roles will be done through invitation. When completing the submission form on EasyChair, you will see a space which asks for an abstract to be typed in or pasted. Kindly copy and paste your abstract here. Further down the page you will upload your full abstract as a pdf or word attachment. You should receive confirmation of submission of your abstract from EasyChair immediately after submission by email; if you have not, please bear in mind that any emails received might be found in your spam folder.

### **ALTERNATIVELY**

Your abstract should can also be submitted to the email addresses below. In this option the abstracts should follow the generic format of purpose, method, results, conclusions and recommendations. The abstract should have a maximum of 300 words and accompanied by a maximum of five key terms. Font should Times Roman Numerals with a font-size of 12. Contact details and institutional affiliations should be included. Abstracts are to be submitted as word documents to: [icsd@gzu.ac.zw](mailto:icsd@gzu.ac.zw) copied to [nmarozhe@gzu.ac.zw](mailto:nmarozhe@gzu.ac.zw) However, we encourage that ALL abstracts be submitted through the EasyChair platform above

## INTERNATIONAL ADVISORY COMMITTEE

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### Conference Fees

No conference fees are required to participate at this conference.

### Further Information

For more information, please contact [nmarozhe@gzu.ac.zw](mailto:nmarozhe@gzu.ac.zw) phone +263 772 208 245 OR +263 39 254 085.

### Local Organising Committee

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