

SEMINAR

FEATURES AND APPROACHES TO MANAGEMENT OF DISASTERS WITH PARTICULAR EMPHASIS ON SOUTHERN AFRICA

PRESENTED BY PROF HILARY I INYANG

25 MARCH 2024 || 10:00 - 12:00

134 PRETORIUS STREET,
HSRC BUILDING, PRETORIA

For more information, contact Dr Wilfred Lunga (wlunga@hsrc.ac.za)

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SEMINAR ABSTRACT

It is generally believed that more than 50% of the global population inhabit areas that are exposed to at least, one natural hazard. Increase in global population and associated use of land for infrastructure development and other civil/industrial services translate to exposure of more people and systems to hazards such as floods, earthquakes, landslides/mudslides, wildfires, drought, dust storms, thermal extremes and ice storms. The frequency and severity of these phenomena sometimes overcome resilient systems, thereby, resulting in disasters that manifest as destruction of infrastructure, damage of ecological systems, occupational losses and loss of life. The most frequent and severe disasters in the Southern Africa/Indian Ocean Region are storms, floods, droughts and bush fires. For South Africa specifically, it is reported that in the period 1900-2017, they were more than 100 disaster events that negatively affected about 21 million people including 2,200 deaths plus approximately US\$4.6 billion in monetary losses. In addition to transient events that have the immediate or trailing impacts that are mentioned above, global warming which derives from the cumulative release of huge quantities of greenhouse gases into the atmosphere since the industrial revolution of the 1850s, has activated the driving factors of some of the hazards mentioned above, with a consequent increase in their frequency and severity. In addition, technological disasters such as human-induced explosions, some structural failures, toxic releases and industrial accidents add to the need for development and deployment of effective and efficient systems in disaster management. Such system must fit within a disaster management framework of the jurisdiction of interest. The typical utilities of a disaster management framework are disaster prediction, early-warning and preparedness, response and recovery. In this seminar which is sponsored by Developmental, Capable and Ethical State (DCES) Division of the Human Sciences Research Council (HSRC) of the Government of South Africa, the lecturer (Prof. Hilary I. Inyang) will analyze both global and Southern African disaster statistics, fundamental characteristics of disasters and their quantification, disaster impacts on socioeconomic parameters, disaster management techniques, and necessary elements of a comprehensive disaster management program.



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Founding Director and Distinguished Professor, Global Institute for Sustainable Development, Advanced Analyses and Design (GISDAAD), Concord, NC, USA; Former Chairman, Science Advisory Board (Engineering Committee) United States Environmental Protection Agency, Washington DC, USA; and Honorary President, International Society for Environmental Geotechnology (ISEG), Nanjing, China. (h.inyang26@gmail.com)

BACKGROUND OF THE SEMINAR LECTURER: Prof. Hilary I. Inyang

Within the overall context of global sustainable development, Prof. Hilary I. Inyang has had a diversified career as an educator, administrator, researcher, poet, corporate leader, and field expeditionist during the past 30 years. Recently (2023), he completed his role as US Ambassador's Distinguished Scholar to Ethiopia. He currently serves as the Founding Chairman of the Global Institute for Sustainable Development, Advanced Analyses and Design (GISDAAD) that is headquartered in Charlotte, Concord, North Carolina, USA as well as a Visiting Professor of Geo-environmental Engineering at the Indian Institute of Technology-Bombay (IIT-B), Mumbai, India, following a recent role as a Visiting International Research Fellow at South Africa's Human Sciences Research Council (HSRC). He is a member of the Education Caucus of the United Nations Commission on Sustainable Development and served for two terms (1997-2001) as Chair of the Science Advisory Board (Engineering Committee) of USEPA in Washington DC, USA. He is a former Duke Energy Distinguished Professor and Director of the Global Institute of Energy and Environmental Systems of the University of North Carolina, Charlotte, USA, former DuPont Professor of Environmental Engineering and Science, and Director of CEEST, University of Massachusetts, Lowell, USA, former President of the African University of Science and Technology, Abuja, Nigeria, and former Vice Chancellor of the Botswana International University of Science and Technology. He chaired the Steering Committee of the Africa Science Plans under the auspices of the International Council for Science, UNESCO and the United Nations Economic Commission for Africa. He has been a UNESCO Consultant on Water Security. He has performed field research expeditions in numerous countries e.g. China, Siberia (Russia), Brazilian Minas Gerais Region and Slovenia on mining, Alaska and Nigeria on climate change and oil spills, Japan, Finland and Korea on waste management, Taiwan and Canada on rock fragmentation, and Switzerland, Germany and Italy on science policy. He has won numerous research grants from several agencies, including the US National Research Foundation, Sandia National Laboratories (USA), General Electric Corporation, US Environmental Protection Agency, United Nations Development Program (UNDP) and the African Development Bank. He has won more than 20 professional prizes and is a former AAAS/USEPA Environmental Science and Engineering Fellow, US National Research Council Young Investigator and Eisenhower/Randolph Fellow. Prof. Inyang holds a Ph.D. (1989) with a double major in Geotechnical Engineering and Materials, and a minor in Mineral Resources from Iowa State University, Ames, Iowa; an M.S. (1986) and B.S (1985). in Civil Engineering from North Dakota State University, Fargo, North Dakota, USA; and a B.Sc. (Honors) (1981) in Geology from the University of Calabar, Nigeria. He has authored about 300 publications and served on 29 journal editorial boards. He won the 2013 Nigerian National Order of Merit (NNOM) in science and technology and is a Fellow of both the African Academy of Science and the Geological Society of London. Prof. Inyang is a Proost Poet who is currently completing a 10-year BrownBard Poetry Series, comprising more than 8,000 poems in 50 books to be released in 2025 as the most profound poetry series ever attempted.

Seminar hosted by the HSRC's Developmental, Capable and Ethical State (DCES) division.