Dr. Lugomela is a seasoned hydrologist who has worked for about 20 years in hydrology and water resources management with the Ministry of Water - Tanzania. He rose through the ranks from Hydrologist Grade III to Principal Hydrologist Grade I after which he was appointed an Assistant Director for Water Resources Planning, Research and Development. Dr. Lugomela served as the National Decision Support System (DSS) Specialist for Tanzania during the development of the Nile Basin DSS from 2007 to 2012 where he successfully participated in its preparation. He was also one of the Task Force members representing Tanzania in the Development of the New Water Release and Abstraction Policy for Lake Victoria Basin from 2007 to 2012. During his tenure as an Assistant Director (2012 – 2019), he successfully supervised the preparation of Integrated Water Resources Management and Development (IWRMD) Plans in different Basins of Tanzania, among other responsibilities.

Dr. Lugomela is currently one of Tanzania's representative in the Nile Equatorial Lakes Technical Advisory Committee (NELTAC), an advisory body to the Council of Ministers (NELCOM) on all matters related to the Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU) which is based in Kigali. NELSAP-CU is one of investment arms of the Nile Basin Initiative (NBI). He successfully served two terms as Chairman of NELTAC (2013 - 2014 and 2017 - 2018). He is the current Director of Water Resources in Tanzania and the National Hydrological Adviser to the Permanent Representative of Tanzania with WMO who is also the Director General of Tanzania Meteorological Authority (TMA). Dr. Lugomela has made several publications and teaches on part time basis at the University of Dar es Salaam and the African Institute of Science and Technology (NM AIST) based in Arusha.