Prof. DWIKORITA KARNAWATI, Ph.D

Head of Indonesia Agency for Meteorology, Climatology and Geophysics (BMKG)

Prof. Dwikorita Karnawati (Rita) Ph.D, has been appointed as the Head of Indonesia Agency for Meteorology, Climatology and Geophysics (BMKG), since November 2017, after her completion in serving as the President of Universitas Gadjah Mada (UGM), a prominent university with 55,000 students in Indonesia.

She has an extensive professional experiences and academic backgrounds as the Professor in Environmental Geology and Disaster Mitigation at UGM. Indeed, she is very active in promoting and developing the National Multi Hazard Early Warning System (MHEWS), and very well-respected as the one of the key figures in the preparation of the Presidential Decree on Indonesian Tsunami Early Warning System (InaTEWS) (Presidential Decree, Number 93 of 2019).

Obtaining the Ph.D Degree in Earth Sciences from Leeds University, UK in 1996, she continued her research on The Prediction of Hydrometeorological Disaster through the Post Doctoral Program at Tokyo University of Agriculture and Technology, Japan in 1997. Afterwards, Prof. Rita consistently worked on the capacity development and education programs for Disaster Mitigation since 1997. Between 2004 and 2014, she served as The Coordinator for the ASEAN University Network - Southeast Asia Engineering Education Program (AUN Seed Net) in the Field of Disaster Mitigation (which include hydrometeorological disaster). She received the Leverhulme Professorship Award to further develop her research in Community-Based Landslide Early Warning System, in The Institute for Advanced Studies, at Bristol University, UK in 2003. Indeed, due to her extraordinary works in research-based education programs for Disaster Mitigation, she received series of research grants from the World Bank, as well as from Japan International Cooperation Agency (JICA) and the British Council, which then very important to support the process of developing the Multi Hazard Early Warning System, especially related to hydrometeorology disaster, earthquake and tsunami in Indonesia, with respect to life survivability and environmental protection. In October 2011, her research in Community-Based Landslide Early Warning System was selected as one of the best research on Landslide Disaster Risk Reduction by the International Consortium on Landslides, which led to the appointment of her University UGM as the World Center of Excellence for Landslide Disaster Risk Reduction. Furthermore, she was awarded the Fulbright Senior Research Program to develop Integration of Technical and Human Sensors for Early Warning System of Landslides, carried out in The Visualization Center-Department of Geology, at San Diego State University, California, USA in 2011-2012. Since 2015, Prof. Rita has been appointed as the Vice President of the International Consortium on Landslides (ICL). In such position, she actively promoted and developed the integration of the technical sensors and human sensors for hydro-meteorological early warning system, in which one of her team innovative products had become an international reference (ISO 22327) in 2018.

Accordingly, in 2019 she has been elected as the Executive Council (EC) Member for the World Meteorological Organization (WMO) period 2019-2023. She also elected as the Chair of the Intergovernmental Coordination Group of Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) from 2019-2022 and she has been trusted to serve again as the Chair for the Second term as a Chair. She has also appointed as a Steering Committee Member of Global Ocean Observing System (GOOS) as a representative of WMO in 2021.

In her recent position as the Head of the Agency, she actively drives the innovation on Early Warning Technology and Impact-based Forecasting Systems for Meteorology, Climatology and Geophysics, powered by the Big Data, Artificial Intelligent (AI), and Internet of Things (IOT), which also connected to Social Media, Mobile Aps and You Tube. She also actively promotes the Community Awareness Program on Climate Adaptation through Climate Field School for fisheries and farmers, which are considered as the most vulnerable communities during this Covid-19 pandemic. Furthermore, she facilitates the Development and Implementation of Coastal Flood Inundation System to reduce the risk of socio economical loss in the coastal area in Jakarta Bay. And now she plays a strong leadership in Modernizing and Strengthening the National Marine – Atmospheric Observations and Forecasting System across Indonesian Maritime Region, in order to support the improvement of maritime economic development and resiliency in the country.

Receiving an extensive recognition from national and local counterparts as well as from various international organizations for her work, she also has been invited to deliver keynote speeches and lectures in conferences, meetings, and events in various universities and institutions in USA, Europe, Australia, New Zealand, India, Japan, China, and Africa, to share her best practices of her experiences in Disaster Risk Reduction and Early Warning System.