

Third session of the Commission for Weather, Climate, Hydrological, Marine and Related Environmental Services and Applications (SERCOM-3)

Name:

Dr. Ardhasena Sopaheluwakan

Involvement in WMO bodies:

As advisor to the Permanent Representative & advisor to the President of Regional Association-V:

- Advisor to the President of Regional Association V (WMO-RAV, South-West Pacific), 2010 - 2018.
- Advisor to the Permanent Representative of Indonesia with the WMO, 2011 - present.

For Regional Association-V:

- Director, of the *WMO Regional Training Center (Ina-RTC)* in Indonesia, 2013 - 2014.
- Task Team member for *Strategic and Operational Planning*, for RAV - WMO (South West Pacific) 2012.
- National focal point for the *Regional Climate Center* in RA-V WMO, 2016 - .
- Vice Chair of the *Working Group on Climate Services of the Regional Association-V WMO*, 2016 - 2019.
- Chair, Working Group on Climate Services of the Regional Association-V WMO, 2019 - 2022.
- Task Team member for *Regional Concept*, Regional Association-V WMO, 2021 - .
- Coordinator, implementation of the Cataloguing of Hazardous Events pilot phase in Regional Association – V WMO, 2019 - present.

For Technical Commissions:

- Member, *Task Team on the Definition of Extreme–Weather and –Climate Events (TT-DEWCE)*, Commission for Climatology (CCI) WMO, 2014-2018.
- Co-Lead, *Expert Team on Global Climate Statement*, Commission for Climatology (CCI) WMO, 2018 - 2020.
- Member, *Expert Team on Climate Monitoring and Assessment*, Standing Committee-Climate Services (SC-CLI) SERCOM WMO, 2020-2022.
- Co-chair, *Expert Team on Cataloging Hazardous Events*, Standing Committee-Disaster Risk Reduction and Public Services (SC-DRR) SERCOM WMO, 2020-2024.

For other bodies and initiatives under WMO:

- Member, *Executive Council Task Team on WMO Data Policy for International Exchange of Climate Data and Products to support the implementation of the Global Framework for Climate Services (GFCS)*, representing WMO RA-V (South West Pacific), 2012-2014.
- Steering Committee member, *Indian Ocean Data Rescue Initiative (INDARE)* WMO, 2014.
- Representative of the Commission on Climatology (CCI) to the *Inter Programme Task Team on Cataloguing Extreme Weather Water and Climate Events (IPTT-CWWCE)*, WMO, 2016 - 2018.
- Steering Group, *Space-based Weather and Climate Extremes Monitoring Demonstration Project (SEMDP)*, WMO, 2018 -2022.
- Management Committee member and principal delegate representing Indonesia for the *Intergovernmental Board on Climate Services (IBCS)* WMO, 2013 - 2019.

Summary of Professional Qualifications:

- Providing leadership for overall climate services in the Agency for Meteorology Climatology and Geophysics (BMKG) and active international contribution.
 - Comprehensive services include regional climate analysis, the provision of seasonal forecast in BMKG, and applied sectoral applications (e.g. water resources, agriculture, health, forestry, renewable energy). Quality control of long-term historical data, trend- and indices-analyses are also part of the procedure. Presently also spearheading the implementation of national air quality information services and the implementation of Integrated Global Greenhouse Gases Information System (IG3IS) in Indonesia.
- Applied mathematician as background, modeling and simulation specialist.
 - Specialist in modeling and numerical simulation of phenomena and practical problems arising from nature, variational description of natural phenomena, climate modeling and simulation. Experiences in (past) research in the area of linear and nonlinear optical phenomena, modeling and simulation of optical waves in photonics- and plasmonics-devices. Also, in the area of water waves (tsunamis and hydrodynamic laboratory waves).
- Selected management qualifications:
 - PPM School of Management, certificate for Scrum for Agile Organization, Objectives and Key Results (OKR), Effective Leadership, Building Effective Interpersonal Skills, 2020 – 2021.
 - Harvard Business School (online), certificate of Specialization in Strategy: Disruptive Strategy, Management Essentials, Strategy Execution, Global Business and Open Innovation, 2020-2023.
- Contribution to science and education:
 - Published > 120 articles in international and national scientific journals, <https://www.researchgate.net/profile/Ardhasena-Sopaheluwakan> .
 - Supervised > 70 combined PhD, MSc, BSc students in national and international universities.

Summary of Education:

- 10/2000, BSc, Mathematics, Bandung Institute of Technology, Indonesia.
- 06/2004, MSc, Applied Analysis and Mathematical Physics (AAMP) Group, University of Twente, The Netherlands. Specialization: *Modeling of micro-optical devices*.
- 12/2006, PhD, MESA+ Institute for Nanotechnology, University of Twente, The Netherlands. Specialization: *Modeling of photonic devices*.
- 01-12/2007, Postdoctoral Associate, Applied Analysis and Mathematical Physics Group, University of Twente, The Netherlands. Specialization: *Extreme water wave generation in hydrodynamic laboratory*.