

Program Book of Global Meeting #6 of The International Forum of Meteorological Societies

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Uniting Meteorological Societies of the World

Version 01



Hosted by the American Meteorological Society (AMS)

At the Westin Hotel, Boston

January 14 & 16, 2020

Prepared by: Dr. Harinder Ahluwalia

January 14, 2020







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"AGENDA OF IFMS Global Meeting #06 (IGM-06")





Preamble and Welcome – by IFMS President

I would like to welcome all the attendees of the International Forum of Meteorological Societies (**IFMS**) Global Meeting 6 (IGM-06) to Boston. We hope that we will have a very fruitful meeting to review the progress of IFMS since the last IGM-05 in Budapest which took place concurrently with the European Meteorological Society (EMS) Conference in September 2018. We will also plan the future course of IFMS.

Since re-energizing IFMS in January 2015 at the IGM-04 in New Orleans, USA, we have made



considerable progress in formalizing IFMS. We are now an incorporated non-profit organization called International Forum of Meteorological Societies (IFMS) registered in Washington DC, USA. Having defined a Value Proposition, we have created a Committee to implement each Value Proposition. Each Committee consists of a Council Member acting as the Committee Chair and a few others as Committee Members. Each Committee has created an Implementation Plan for executing the activities which can be clearly identified.

In IFMS Global Meeting 6 (IGM-06) we will:

- 1. Review the mandate of each Committee,
- 2. Review the progress of each Committee and
- 3. Identify Planned Activities over the next year and their schedule,



In its cg18 Congress in June 2019, WMO approved its "Global Campus" Initiative. We are preparing ourselves to assist WMO in the implementaion of this Program and WBG (GFDRR) in capacity building by including the following topics:

- Creating a Volunteer Force to assist us in our programs – especially capacity building Initiatives led by Dr. Walter Dabberft.
- 2. Understanding the requirements of the Global Campus Initiative led by Dr. Tim Spangler.

In addition, some important invited speakers will make their presentations. The keynote speech will be presented by the Secretary General of WMO Prof. Petteri Taalas and an important presentation on the role of GFDRR/WBG will be given by Dr. Vladimir Tsirkunov. The incoming President of AMS Dr. Mary Glackin, and the next President Dr. Michael Farrar as well as AMS Executive Director Dr. Keith Seitter will give welcome addresses on behalf of the host society AMS.

Dr. Bob Riddaway, President of EMS (European Met Society), will be making a presentation on how the EMS as a society of societies was established and how it operates. This will help us in strengthening FLISMET and AfMS and hopefully creating an Asian Met Society.

We hope that the attendees of IGM-06 will greatly benefit from this meeting and will be excited to help take this venerable organization to new heights to fulfill its mandate to help strengthen the GWE.

Dr. Harinder Ahluwalia - President - IFMS





Welcome Message from WMO Secretary General

In 2020, WMO will celebrate its 70th anniversary. We are proud of our achievements during these seven decades of global leadership and



coordination of the weather, climate and water related activities of our 193 Member States and Territories. Our main focus now is on the huge societal challenges related to the weather and climate related risks. To meet these challenges, WMO is undergoing a reform process that will

enable efficient and effective operations and tangible outcomes for the benefit of all nations.

The new WMO strategy adopted by the 18th Congress is based on the Earth System approach which will allow the monitoring and prediction of the status atmosphere, hydrosphere and cryosphere in a holistic way, and generation of highly accurate and timely information products and services to all interested economic sectors, businesses and citizens. A major factor in achieving the goal is the enhanced partnership between the public, private and academic sectors which has been formulated by the Congress in the Geneva Declaration 2019: Building Community for Weather, Climate and Water Actions. We will work with all traditional and new partners, including those from non-governmental sector, like the IFMS and its member national meteorological societies, as a strong link to the communities of professionals from all sectors of the enterprise.

Prof. Petteri Taalas, Secretary General - WMO





Welcome Message from Outgoing, Incoming and Elected AMS Presidents

Dear Friends and Colleagues,

It is an honor to have the IFMS members join the AMS as we celebrate the culmination of our first century. The theme of this 2020 Boston meeting is AMS Past, Present and Future: Linking Information to Knowledge to Society. The theme reflects how far we have come in understanding the Earth system and developing services that help people make the best decisions regarding weather and climate. More importantly, it highlights how much work is needed for us to meet the challenges of a changing climate and global population growth. Many sectors of society require our support and this in turn demands that our scientists work with professionals from many diverse disciplines and work across scales from local to global. Meteorological societies are tremendously important in building these interdisciplinary bridges as well as bridges among the government, private, academic and philanthropic sectors.







We look forward to lively discussions at this meeting as we share ideas and experiences and discuss ways we can work together to meet the challenges that are before us. Thank you for your efforts and welcome to Boston.

With best wishes:

Jenní Evans, Outgoing AMS President
Mary M. Glackin, Incoming AMS President
Mike Farrar, AMS President-Elect





IMPORTANT INFORMATION FOR IGM-06 ATTENDEES

The Westin Boston: Waterfront Hotel
425 Summer Street, Boston, Massachusetts 02210 USA
Phone: 1-617-532-4600

IFMS Global Meeting #6:

Date/Location: January 14, 2020 (Tuesday) in the Westin Hotel - Lewis Room

January 16, 2020 (Thursday) in Westin Hotel - Commonwealth A

Meeting Timing: Both days: 8:30 AM to 5:00 PM

Registration: Both days: 8:30 AM to 10:00 AM

GWE Meeting of the GFDRR of the World Bank Group:

When: January 15, 2020 (Wednesday) Timing: 9:00 AM

Location: Westin Hotel (Room: Commonwealth A)

Remarks: All IGM-06 Attendees are invited to attend.

Event: The International Dinner of AMS

Day and Time: Tuesday (January 14, 2020) evening 6:00-9:00 PM

Location: Westin Hotel Grand Ballroom A and Foyer

Remarks: All IFMS attendees are invited.

Event: Centennial Celebration of AMS

Day and Time: Wednesday (January 15, 2020) evening 6:00-9:00 PM

Location: Convention Center Ballroom

Remarks: All IFMS attendees are invited to this event.

However, for entrance you will require an Annual Meeting **Badge**.

Interested people are required to request a Voucher from Keith Seitter

which they can use for registering without having to pay a fee.

We repeat: Please note again that you need the Registration **Badge** if you would

like to attend the celebration event.





AGENDA OF IFMS Global Meeting #06 (IGM-06)

Tuesday – January 14, 2020 - 8:30 AM - 5:00 PM

Venue: Lewis Room in Westin Hotel

| Time | Item Description | Participants | Page |
|--|---|--|---------------|
| 8:30 - 10:00 | Registration at IFMS Meeting Venue | | |
| 9:00 - 10:00 | Plenary Session 1 | | 9 |
| 9:00 - 9:05 | Opening by President of IFMS | Dr. Harinder Ahluwalia | 9 |
| 9:05 - 9:15 | Welcome Speech by AMS President Elect | Dr. Mike Farrar | 9 |
| 9:15 - 9:30 | Key Note Speech SG-WMO | Prof. Petteri Taalas | 9 |
| 9:30 - 9:45 | Address by WBG-GFDRR Dr. Vladimir Tsirkunov | | 10 |
| 9:45 -10:10 | Summary Presentation about IFMS: Value Proposition, Formation of Committees and Overall Progress Report | Dr. Harinder Ahluwalia | 11 |
| 10:10 - 10:30 | Tea/Coffee Break | | |
| 10:30 - 11:30 | Presentation and discussion on Global Campus Initiative of WMO Led by Dr. Tim Spangler | | 11 |
| 11:30 - 12:30 | Presentation and discussion on Development of Volunteer Force | Led by Dr. Walter Dabberdt | 12 |
| 12:30 - 13:15 | Lunch | | |
| 13:15 - 13:45 | Committee 7: Best Practices Coordination Committee | Dr. Michael Coughlan - Dr. Keith Seitter | 12 |
| 13:45 - 14:15 | Committee 8: Webinar & Training | Dr. Sushil Dash – Dr. Michael Coughlan, Dr. Buruhani Nyenzi and Prof. Liz Bentley | 13 |
| 14:15 - 14:45 Committee 3: Value Proposition Implementation Committee Task 3.1: Collaboration on joint activities | | Dr. Yongyun Hu/Dr. Buruhani Nyenzi - Panelists: Prof. Liz Bentley, Dr. Yongyun Hu, Dr. Harinder Ahluwalia | 13 |
| 14:45 - 15:15 | Committee 3: Task 3.2: Membership Promotion & assistance in developing new Societies | Dr. Workneh Degefu – Dr. Sushil Dash, Dr. Jack Hayes, Dr. Michael Coughlan and Prof. Liz Bentley | 14 |
| 15:15 - 15:30 | Health Break | | |
| 15:30 - 16:30 | Committee 5 Task 5.1: Financing Committee Task 5.2: Individual Funding through Member Societies | Dr. Keith Seitter – Dr. Harinder Ahluwalia, Dr. Jack Hayes, Prof. Liz Bentley, Dr. Yongyun Hu and Mr. Cam Chao & Regional Council Members | 14 & 15 |
| 16:30 - 17:00 | Committee 6: ACT Committee | Prof. Liz Bentley – Dr. Keith Seitter, Mr. Cam Chao and Dr. Harinder Ahluwalia | 15 |







$Thursday - 16 \ January \ 2020 \ \textbf{-} \ 8:30 \ \mathsf{AM} \ \textbf{-} \ 5:00 \ \mathsf{PM}$

Venue: Commonwealth A in Westin Hotel

| Time | Item Description | Participants | Page |
|---------------|--|--|-------|
| 8:30 - 10:30 | Registration at IFMS Meeting Venue | | |
| 9:00 - 9:40 | SESSION 2 Plenary | | |
| 9:00 - 9:10 | Opening by AMS Executive Director | Dr. Keith Seitter: Speaks about AMS plans in developing IFMS | 17 |
| 9:10 - 9:25 | Welcome Speech by AMS President | Dr. Mary Glackin | 17 |
| 9:25 - 9:35 | Introduction to rest of the day Program | Dr. Harinder Ahluwalia | 18 |
| 9:35 - 10:05 | Committee 1: Access to Communications Channels – Communications Strategy | Mr. Cam Chao – Prof. Liz Bentley, Dr. Buruhani Nyenzi, Dr. Sushil Dash & Dr. Harinder Ahluwalia | 18 |
| 10:05 - 10:35 | Committee 2: Task 1: Cooperation with Regional Met Societies | Prof. Liz Bentley – Mr. Workneh Degefu, Dr. Oscar Frumento, Dr. Yongyun Hu | 19 |
| 10:35 - 10:55 | Health break | | |
| 10:55 -11:25 | Committee 9: Recognition of Individual Contribution | Dr. Buruhani Nyenzi – Dr. Sushil Dash, Dr. Yongyun Hu and Prof. Liz Bentley | 19 |
| 11:25 - 11:55 | Committee 10: GWE Monitoring Committee: Assist WMO/WBG to promote PPA Sector Partnerships | Dr. Jack Hayes- Dr. Keith Seitter & Dr. Harinder Ahluwalia | 20 |
| 11:55 - 12:20 | Committee 4: Dealing with WMO, WBG and other similar organizations. | Dr. Harinder Ahluwalia, Dr. Jack Hayes, Dr. Keith Seitter, Dr. Michael Coughlan and Mr. Workneh Degefu | 20 |
| 12:20 - 13:00 | Lunch | | |
| 13:00 - 13:30 | Committee 12: Promotion of Climate Change Issues with Governments & Public | Dr. Harinder Ahluwalia - All Council Members | 22 |
| 13:30 - 14:00 | Committee 13: Meetings and Conferences including WWOSC | Dr. Keith Seitter – Dr. Harinder Ahluwalia, Dr. Buruhani Nyenzi | 22 |
| 14:00 - 14:25 | Presentation on how the European Met Society (EMS) was created and how it is sustained. | Dr. Bob Riddaway, President EMS | 22 |
| 14:25 - 15:30 | Presentation by a Guest Speaker & Societies 1. Dr. Oscar Frumento 2. Met Graciela Salaberri 3. Dr. Louis Uccellini 4. Dr. Buruhani Nyenzi 5. Workneh Degefu | Speakers: (All speakers 10 minutes other than #3) 1. Council Member Region III (10 minutes) 2. FLISMET and Amigos del Viento 3. Director NWS (15 minutes) 4. IFMS – VP administrator 5. Council Member Region I | 23-25 |
| 15:30 - 15:50 | Health Break | | |
| 15:50 -16:50 | Plenary Session to discuss IFMS' Future Direction and Creation of Volunteer Force | Harinder Ahluwalia, Keith Seitter, Liz Bentley, Buruhani Nyenzi and S.K. Dash | 25 |
| 16:50 -17:00 | Date and place of next meeting Closure of IGM6 | Harinder Ahluwalia | 25 |





Session 1: January 14, 2020

Opening by President of IFMS



Dr. Harinder Ahluwalia is the President of IFMS since 2015. He was previously the President of CMOS. He is a Fellow of IFMS. He is the President of a company called Info-Electronics Systems (IES) dealing with Environmental Sciences including Meteorology, Hydrology, Environmental Monitoring and Remote Sensing. He served on the National Round Table on Environment and Economy of Canada (Sustainable Development) which reported to the Prime Minister of Canada. He has won many accolodates throughout his career. He is a Fellow of CMOS and Technology Man of the Year awarded by ICCC.

Abstract

Dr, Ahluwalia will present the introductory Summary of the Overall IGM-06 and its objective. First day's proceedings will be outlined and forthcoming speakers will be introduced.

Welcome Speech by AMS President Elect



Dr. Michael R. "Mike" Farrar is the incoming President of AMS. He is currently the chief scientist for weather operations for the U.S. Air Force (USAF). In this role, he serves as the primary science advisor to the USAF director of weather and coordinates science and technology activities related to weather operations with internal USAF and Department of Defense (DoD) stakeholders as well as with US interagency and international partners. Farrar served in 2017-18 as senior VP and chief operating officer of the University Corporation of Atmospheric Research (UCAR) and held several executive positions in NOAA from 2012 to 2017. He has received numerous military awards and decorations and has led two centers/ labs in the NWS to receive

Department of Commerce Gold Medals.

Abstract

In his welcoming remarks, Dr. Farrar will welcome the IFMS attendees on behalf of the AMS and will provide a brief historical perspective on the genesis and evolution of IFMS. He will also comment on the role of the AMS and discuss the ongoing and future AMS support for the IFMS.

Key Note Speech SG-WMO

Prof. Petteri Taalas, the current WMO Secretary General since 2015, is responsible for WMO Governance and



Secretariat Reforms. He did his MSc in meteorology in 1988, PhD in 1993, both at Helsinki University Dept. of Physics. He was WMO Director of Development and Regional Activities, 2005-2007. He was responsible for establishing of Resource Mobilization and Least Developed Countries offices and for overall reform of the functions. He was WMO Executive Council Member, 2008-2015 and supported WMO reform for developing countries. He was Director-General of Finnish Meteorological Institute, 2002-2005 and 2007-2015. He was Council Chair, EUMETSAT 2011-2014, and EUMETNET 2003-2005. He has won accolades from various organizations.





Abstract

In his keynote speech Prof. Taalas will present the main outcomes of the 18th World Meteorological Congress, held in June 2019, related to the WMO constituent bodies reform, the new WMO Strategy 2020-2023, and the new approach to partnerships across the public, private and academic sectors. He will talk about the Geneva Declaration 2019 adopted by the Congress as a high-level policy promoting cooperation between sectors to respond collectively to the weather and climate related risks facing the society.

Address by WBG-GFDRR

Dr. Vladimir Tsirkunov is a Lead specialist and the team leader of Hydromet Program of the Global Facility for



Disaster Reduction and Recovery (GFDRR) of the World Bank. Since 2003 he is involved in development and implementation of investment and technical assistance projects supporting improvement of weather, climate and hydrological services and modernization of National meteorological and hydrological services. Dr. Tsirkunov has over 40 years of scientific, applied technical and project management experience in environmental and natural resource management. Prior to joining the World Bank in 1994, he was the Head

of the Laboratory of the Supervision of the USSR System of Hadrochemical Monitoring and Water Quality Data Collection.

Abstract

The growing importance of weather, climate and hydrological (hydromet) information and services for decision making in the modern world is well recognized. Unfortunately, despite dramatic improvements in this area in recent decades and growing potential supported by new knowledge and technologies, a considerable capacity gap still exists in hydromet service delivery between developed and developing countries leaving the most vulnerable without the critical information and warnings that can save their lives and sustain their living standards. Recognizing this issue, the World Bank (WB) and the Global Facility for Disaster Reduction and Recovery (GFDRR) scaled up its support to strengthening NMHSs in developing countries. The WB/GFDRR hydromet portfolio of investments includes now close to 60 projects with a total worth of over USD 800 million.

Our main development partner in this area is WMO and we are proud to be one of the co-founding partners of the Alliance for Hydromet Development which was endorsed by the WMO Congress in June and launched at the COP25 with 12 development partners and multilateral development banks joining this initiative. Jointly with WMO we are also supporting the development of the global weather enterprise by facilitating engagements between public, private and academic sectors.

Overall, despite the significant increase of investments in NMHSs by the World Bank, WMO and other development partners, it's difficult to make the results of these investments sustainable: the NMHSs are not receiving adequate government funding to retain qualified NMHSs' staff and support operations. This prevents NMHSs from adequately performing their key functions providing services to communities, key economic sectors, and ensure safety of the population. Support for research and development as well as for capacity building of staff in this sector proved to be particularly challenging. Non-government institutions such as AMS and IFMS could be instrumental in helping countries build stronger understanding of the value of the hydromet services and the role that partnerships can play in it, build capacity of the NMHSs and strengthen their service delivery models. We look forward to finding ways to bring the knowledge and experience accumulated in meteorological societies into the WB hydromet projects aimed at strengthening delivery of weather, climate and hydrological services in developing countries.





Summary Presentation about IFMS

Dr. Harinder Ahluwalia

Abstract

A presentation on IFMS' background and its mission will be made. This will also include the important steps taken by the first Council of IFMS which included incorporation of IFMS, creation of its value Proposition and



having an MOU with WMO. In order to implement the Value Proposition, under the second Council, we created Committees to work on each of the Value Proposition items. Each Committee was assigned a Chair and some Committee Members. Each Committee has a defined mandate and is expected to execute the tasks required to make strong progress. Financing remains the Achilles heel for IFMS and needs to be solved soon to make progress. Some ideas for financing will be presented.

The presentation will also outline how IFMS plans to assist WMO and WBG in their efforts to promote PPA Collaboration for strengthening GWE and in Capacity Building Programs.

Progress of IFMS is totally dependent upon the dedication of its Councillors and member societies and our capability to finance IFMS.

Up to now AMS remains IFMS' main benefactor. We urge other strong societies to assist IFMS in becoming a very strong volunteer-based organization.

WMO Global Campus - Open Educational Practice in Action

By Dr. Patrick Parrish, Chief of Training Activities Division, WMO/ETR

In the IFMS Session: Presented by Dr. Tim Spangler

Dr. Tim Spangler did his Ph.D. in Biometeorology from Utah State University. From 2013-2018, he was a Consultant to the World Meteorological Organization, Education and Training Program working on the WMO Global Campus. He also served as a Consultant to the Korean Meteorological Administration from 2017-2018.

After serving in various other organizations, Dr. Spangler served as the Director of the COMET Program of



University Corporation for Atmospheric Research (UCAR) 1992-2013. The COMET Program is a national and international continuing education program in the geosciences. With a staff of 35 and annual budgets averaging \$5M, the program has become a national and international resource for the geosciences. Over 300,000 individual users have registered in the website and acquired 2,000,000 hours of online instruction. The program has won numerous awards including the prestigious Brandon-Hall Gold Medal, and the AGU Education Excellence award.

He has received a number of awards including American Geophysical Union Award for COMET, Fellow of the American Meteorological Society, AMS Certified Consulting Meteorologist and Honor Society of Phi Kappa Phi.

Abstract

An overview of the WMO Global Campus will be presented. The Global Campus which began in 2013 was endorsed by WMO Congress 18. Its major components will be described including the WMO Learn Portal, the Events Calendar, the E-library, translations resource center, and activities to develop partnerships. The benefits of collaboration with universities will be outlined along with a few thoughts about collaboration with IFMS. A brief





review of upcoming activities will be presented. This will be followed by a discussion on how IFMS can get involved in this Program.

Presentation and Discussion on Development of Volunteer Force

Led by: Dr. Walter Dabberdt

Walter F. Dabberdt received the M.S. and Ph.D. degrees from the University of Wisconsin. He was a senior research meteorologist at Stanford Research Institute; at NCAR he was scientist, facility manager, and NCAR



Associate Director. At the Vaisala Group, he was Chief Scientific Officer. He served on numerous national and international panels and committees, as: a member of the National Academy of Sciences' Board on Atmospheric Sciences and Climate; Board Chair of the Environmental Prediction in Canadian Cities (EPiCC) program; Chair of the Industrial Advisory Board of the multi-university Collaborative and Adaptive Sensing of the Atmosphere Engineering Research Center; Dr. Dabberdt received the Luke Howard Award from the International Association for Urban Climate, and in 2017 he was awarded the AMS' Helmut

Landsberg Award for Urban Meteorology. In 2016 he became Knight First Class, Order of the Lion of Finland.

Dr. Dabberdt has published 200 papers including 71 peer-reviewed publications.

We will discuss how we can create a Volunteer Force and what kind of tasks this force will handle.

Abstract

The AMS International Academic Volunteering Program will seek to identify AMS members who are interested in providing specialized expertise and services to international professionals in academia and certain non-profit NGO institutions. Typically, these institutions will be in need of assistance in course and curriculum development, research planning, public engagement, and other not-for-profit activities. Such services would be provided on a pro bono basis except for travel, per diem, communications, and other support costs as necessary. The role of the AMS will be to function as an exchange mechanism to facilitate the matching of those in need of relevant volunteer services with those AMS members desiring to provide them. The AMS Volunteering Program role may also include an assessment of the need for pro-bono services by NGOs.

Committee 7: Best Practices Coordination Committee

Dr. Michael Coughlan - Dr. Keith Seitter and Oscar Frumento

Dr. Coughlan is a Climatologist and Meteorologist who has made significant contributions to Australian and



Global meteorology and climate science. Beginning his career as a trainee weather forecaster for the Australian Bureau of Meteorology, Michael Coughlan went on to work on two of four World Climate Research Programme (WCRP) projects in the 1990s. He served as Program Manager for The Global Energy and Water Cycle Experiment (GEWEX) in the United States of America and as the Foundation director of the International Climate and Ocean: Variability, Predictability and Change Project (CLIVAR) in Germany. In 1997, Michael Coughlan became

Director of the World Climate Change Department with the World Meteorological Organisation in Geneva Switzerland.





Abstract

In their operation, Societies need to perform various activities many of which are almost common between the societies. Instead of each society developing these on its own, have a central repository of best practices to help each society. This activity is even more helpful for newly created societies.

A number of Best Practices are available from AMS, RMetS, EMS, etc. They need to be adjusted and put on the IFMS Website.

Committee 8: Webinar & Training

Dr. Sushil Dash - Dr. Michael Coughlan, Dr. Buruhani Nyenzi and Prof. Liz Bentley



Dr. Sushil Kumar Dash is currently the President of the Indian Meteorological Society (IMS) and Council Member for WMO Region II, in the International Forum of Met Societies (IFMS). Formerly he was Professor and Head of the Centre for Atmospheric Sciences at the Indian Institute of Technology Delhi (IITD). At present he is engaged in his R&D activities in IITD as part of the DST Centre of Excellence in Climate Modelling and three more important projects. Prof. Dash is a Fellow of the Royal Met Society and that of the IMS. In addition, he is Life Member and Member of a number of international bodies such as the American Meteorological

Society and the National Academy of Sciences, India.

Abstract

This activity is a part of Capacity Building by conducting Webinars and Training Courses

The Committee Chair will present the tasks accomplished, the current status and the future plan of this Committee. The role of this Committee in the Global Campus Initiative of WMO and the requirement for volunteers and finances will be discussed. We will also discuss the future plan for Webinars which includes type of Webinars, who will give those Webinars and how often they will be arranged.

Committee 3: Value Proposition Implementation Committee

Task 3.1: Collaboration on Joint Activities

Dr. Buruhani Nyenzi/Dr. Yongyun Hu - Prof. Liz Bentley, Dr. Yongyun Hu, Dr. Harinder Ahluwalia





- Dr. Buruhani Nyenzi is the Vice-President-Administration of IFMS. He is also the President of the Tanzanian Meteorological Society. President John Magufuli reappointed Dr. Buruhani Nyenzi to head the board of directors of the Tanzania Meteorological Agency (TMA).
- Dr. Yongyun Hu is the General Secretary of IFMS and is a professor in Peking University, China and Vice Dean, School of Physics, Peking University. He did his Ph.D. from the University of Chicago.

Abstract

Collaboration between the National Hydro-Met Societies (NHMSocs) on joint activities, where appropriate, to advance the science and profession of meteorology. It also includes collaboration between members of societies who wish to do joint projects in R&D or application development.





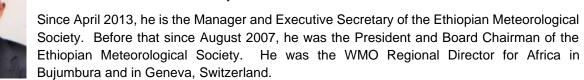
IFMS has provided the Collaboration Tab on its website for interested Societies and other parties to request collaboration through the Website link ifms.collaboration@gmail.com

Task 3.2: Membership Promotion & Assistance in Developing new Societies

Mr. Workneh Degefu – Dr. Sushil Dash, Dr. Oscar Frumento, Dr. Jack Hayes, Dr. Michael Coughlan and Prof. Liz Bentley

Mr. Workneh Degefu is Region 1 representative on the Council of the International Forum of Meteorological Societies (**IFMS**) of the World since September 2018. He was the Member of the Steering

Committee of IFMS from January 2010 - December 2014.



Abstract

This Committee has two major objectives:

- (1) Ensuring that existing societies which are not currently members of IFMS become members.
- Creating NHMSoc where none exists today.

IFMS plans to help Developing Societies address issues concerning global warming and assist their countries in building capacity to withstand "Global Warming".

- a) In order to convince the National Meteorological Service to create a National Meteorological Society, we have prepared the documentation in English, French and Spanish, explaining why societies should become members of IFMS.
- b) This information is also being distributed to those societies which are not currently members but should become members.
- c) It is also useful for developing societies.
- d) Some work on identifying societies which exist but are not members of IFMS has been done.
- e) Some work on identifying countries which do not have Met Societies but should have, has been done. Met Services of some of these countries have already been contacted but require strong follow-up.

Committee 5: Financing IFMS

Task 5.1: Financing Committee

Keith Seitter, Harinder Ahluwalia and Buruhani Nyenzi



IFMS is a volunteer-based organization. However, it requires Finances for the following activities:

- (1) Hiring Exec. Director & at least one or two support staff.
- (2) Cover travel cost of needy Societies and IFMS Councilors for important engagements and other relevant expenses.
- (3) Some finances are required for holding some important events to build capacity.





(4) It is expected that out-of-pocket expenses for activities done for organizations like WMO, WBG, etc. will be paid by these organizations.

A paper on Financing was prepared by Keith Seitter and Harinder Ahluwalia. It suggested various ways to collect some funds:

- a) We have started an IFMS Crowdfunding Campaign for which we request all member societies especially from affluent nations to convince their members to contribute.
- b) Because we are a volunteer-based organization which leverages small funding to produce much bigger results, we are looking for funding from UN, various International Aid Agencies and Philanthropic Organizations.

Task 5.2: Individual Funding through Member Societies

Cam Chao - Workneh Degefu, Sushil Dash, Oscar Frumento, Jack Hayes, Michael Coughlan and Liz Bentley



There is no fee to become a member of IFMS. However, we do recommend to Member Societies to contribute 1% of their membership fees collected from their members to IFMS. It is also recommended that member societies include a line in their membership/renewal form for donation to IFMS. This Committee under the leadership of Cam Chao and membership of all regional representatives is supposed to ensure that these funds are collected.

Committee 6: Accreditation, Certification and Training (ACT) Committee

Prof. Liz Bentley - Dr. Keith Seitter, Mr. Cam Chao and Dr. Harinder Ahluwalia

Prof. Liz Bentley joined the Royal Meteorological Society as Head of Communications in 2008 and in 2010 she took on the new role as Head of the Weather Club – which is the public outreach arm of the Royal Meteorological



Society. In 2013, she became Chief Executive at the Society and in July 2014 was granted the title 'Professor' from the University of Reading.

She completed her PhD in mathematics at the University of Manchester and applied for a job with the UK Met Office, starting work with them in 1993. She has been a research scientist, weather forecaster, forecasting instructor and Chief Instructor at the Met Office College in 1999.

In 2002, she jumped at the opportunity to manage the BBC Weather Centre in London. In 2006, she started work at the Ministry of Defence looking after their environmental research programme - covering everything from the seabed out into space.

<u>Abstract</u>

One of the important issues in meteorology is to ensure that those who call themselves meteorologists have the right background and ethics. In addition, WMO and WBG are promoting cooperation between Public, Private and Academic (PPA) sectors. As these sectors and collaboration expand, the requirement for meteorologists will also increase. Therefore, it is necessary that some standards be set for a practitioner to call himself/herself a meteorologist.

Setting up a Certification Program and operating it is not an easy task. Currently, to the best of our knowledge only two Operational Certification Programs are those of AMS and RMetS. CMOS had a fully functional program







with a number of certified Meteorologists. However, due to shortage of candidates requesting certification, CMOS has suspended this Program till sufficient practitioners start asking for certification.

Some larger National Meteorological Societies can start such a Program and IFMS will be able to help them. For smaller Societies, it might be advisable to have such a Program on a Regional Level. For example, once the African Meteorological Society becomes fully operational and strong, it can start such a Program for African Societies.

IFMS organized a Webinar presented by Liz Bentley from the RMets in collaboration with Keith Seitter from AMS in July 2018.

Any Society wishing to start such a program in its country can request assistance through the Collaboration mechanism provided on the IFMS Website.

IFMS Solutes and Congratulates
the American Meteorological Society On
its first very successful Century and
wishes even more success
in the next Century

January 15, 2020

Global Weather Enterprise Forum Meeting

Topic: Directions for a New Development Phase

Organized by: Global Facility for Disaster Reduction and Recovery of The World Bank Group





Session 2: January 16, 2020

Opening by AMS Executive Director - Dr. Keith Seitter

Dr. Keith Seitter will speak about AMS' plans in developing IFMS. Dr. Keith L. Seitter is the Executive Director of the American Meteorological Society since September 2004, having joined the AMS staff in 1991. He has



brought in various innovations including overseeing the transition of the journals to electronic delivery in the 1990s, and continued improvements to the Society's publications following that.

Dr. Seitter is a Fellow of the AMS and Fellow of the Royal Meteorological Society. He is also a member of many other societies and organizations in the sciences and scholarly publishing and serves on a number of advisory boards. He has given numerous invited lectures and published a number of papers in AMS and other scientific and publishing journals.

Abstract

Scientific and professional societies have a long history of advancing the science and applications for the benefit of humanity. Societies support the scientists and practicing professionals through conferences, journals, accreditation, certifications, and various programs aimed at students, while often also promoting scientific literacy among the broader public. Societies serving the atmospheric and related societies can play a unique role in offering a neutral venue for discussions among leaders of the government, academic, and private sectors, so that the weather, water, and climate enterprise can be made more effective in serving all constituencies. Organizations like IFMS can help societies share experiences and best practices so that all are strengthened. AMS has tried to provide foundational support for IFMS while allowing all members to have an equal voice in its programs and initiatives.

Welcome Speech by AMS President: Mary M. Glackin

How Professional Meteorological Societies can help Advance the GWE

Dr. Mary Glackin is the President of the American Meteorological Society. She also serves as Vice-Chair of



the Board of Atmospheric Sciences and Climate, National Research Council. From 2015-2019 she was the senior vice president (SVP) for science and forecast operations for The Weather Company, an IBM Business. She is a member of the convening committee for the Science for Climate Action Network and also serves on the visiting committee of the NASA Goddard Space Flight Center providing advice to the director. Ms. Glackin has had a long and distinguished

career in public service, including 20 years in the National Weather Service and a five-year tenure as deputy under Secretary of Commerce for National Oceanic and Atmospheric Administration operations. Ms. Glackin has a bachelor's degree from the University of Maryland.

Abstract

It is widely recognized that both economic health and social well being are dependent on quality weather, water and climate services. The need for these services continues to grow with key drivers being a rising global population and extremes from a changing climate. Appropriately, attention has focused on what the Global Weather Enterprise (GWE) composed of the public, private and academic sectors can do to enhance services, especially to areas that have been underserved.

While the private sector has always contributed to services, there is a recognition that the private weather sector which emerged in the second half of the 20th century has become increasingly capable of making contributions





across the value chain. At the same time, the relationships between public entities and private companies has remained largely transactional with private companies providing goods and services to government organizations. And, there is at times a significant distrust among the sectors. However, there are some successful examples of cooperation and collaboration. This talk will focus on those examples and highlight roles Meteorological Societies can play in enabling these successes.

Introduction to the rest of the day's Program

Dr. Harinder Ahluwalia

The program for the second day of IGM-06 will be outlined and highlights of the first day will be summarized.

Committee 1: Access to Communications Channels - Communications Strategy

Mr. Cam Chao - Prof. Liz Bentley, Dr. Buruhani Nyenzi, Dr. Sushil Dash & Dr. Harinder Ahluwalia



Kung-Yueh Camyale Chao has been working in the public affairs field for 20 years and he was elected as the Treasurer of International Forum of Meteorological Societies (IFMS) in September 2018. Before this position, Camyale served as the General Secretary of IFMS from January 2016. He was Deputy Director of APEC Research Center for Typhoon and Society (ACTS) from October 2010 to July 2014.

Camyale was an Invited Expert for Future Earth project which cooperated with MIT Futures Ecolab, and was an invited CSO Representative of European Bank for Reconstruction and Development (EBRD) annual Board meeting since 2017.

Camyale studied Ph.D. in Public Policy at the University of York in the UK, and also studied Ph.D. in Educational Policy and Management at the National Taipei University of Education. He is also a certified trainer of UNDRR.

Abstract

The objective is to create meaningful communication channels (e.g. Website, Newsletter, Social Media, etc.) to unite the Member Societies and provide a means of distributing information and creating discussion groups.

In addition, Groups like LinkedIn group can be used for discussion groups on S&T subjects as well as discussions on IFMS Development topics.

IFMS Website (www.ifms.org) provides information through Newsletter, Reports, Status Reports, etc. It also provides infrastructure for collaboration and best practices. Member Societies and partners can request IFMS to carry information about their events or interesting documentation for a wide circulation.

Implementation of **Facebook**, **Twitter**, **LinkedIn**, **and WhatsApp** started earlier last year but has not progressed because of a lack of a leader for this activity. We need a Leader to:

- i) To study and identify the most effective means of communication
- ii) As per results of study, create the proposed channels of communication to be used between council members, between IFMS members and Associate Member Societies, etc.





Committee 2: Task 1: Cooperation with Regional Met Societies

Prof. Liz Bentley - Workneh Degefu, Dr. Yongyun Hu

Abstract

This Committee has completed a review of the current Regional Societies - EMS, FLISMET, African Met Society - and has shared this review to support the proposal to form an Asian Met Society and other regional meteorological societies. The next steps are to:



- i) Determine what they have implemented which will be of value to IFMS.
- ii) Determine what activities of IFMS can be shared with Regional Met Societies.
- iii) Determine how we can assist each other in dividing the work

In fact, many of our associate member societies use meteorology for their business, e.g. American Geophysical Union, International Association for Urban Climate, International

Association of Broadcast Meteorology, International Association of Meteorology and Atmospheric Sciences and International Society of Biometeorology. In order to have a meaningful relationship, eventually we need to determine what kind of interaction will be helpful to strengthen this relationship.

Committee 9: Recognition of Individual Contribution

Dr. Buruhani Nyenzi - Dr. Sushil Dash, Dr. Yongyun Hu and Prof. Liz Bentley

Abstract

Promoting the contributions of individuals within the meteorological community and beyond by highlighting

excellence in science, technology, organizational development, excellence in providing services, volunteerism, etc.



The IFMS as an international Society believes that as it achieves its basic goals and collaborates with other bodies such as WMO, WBG and HMEI, its awards and recognitions will get the prestige and recognition that it needs to attach to those awards. IFMS awards should be made every two years with a target to start at IGM6 planned for Boston to be held concurrently with AMS's Centennial Celebration in 2020.

- a) Develop the list of awards to be given
- b) Qualifications for each category of award
- c) Frequency of Awards
- d) Set up an Awardee Selection Committee
- e) Decide who and how the nominations are to be done.





Committee 10: GWE Monitoring Committee: Assist WMO/WBG to Promote PPA Sector Partnerships

Dr. Jack Hayes - Dr. Keith Seitter & Dr. Harinder Ahluwalia

Dr. John L. (Jack) Hayes was the director of the National Weather Service (NWS). In this position, he also served as permanent representative of the United States with the UN's World Meteorological Organization (WMO). Dr. Hayes also served as director of the World Weather Watch Department for the WMO in Geneva, Switzerland

Dr. Hayes culminated a distinguished U.S. Air Force career in the 1990s as the Commander of the Air Force Weather Agency. Dr. Hayes has received several awards, including Presidential Rank Award and recognition, in 2003, as one of the Top 100 IT Executives in the

Federal Government. Dr. Hayes holds a Ph.D. and a Master of Science degree in meteorology from the Naval Postgraduate School in Monterey, California,

After NWS, Dr. Hayes served as the Vice President & Senior Executive Account Manager for Environmental Solutions, Harris Space and Intelligence Systems Business Segment. After retiring from the Harris Corporation, Dr. Hayes serves as a part-time consultant for Barron Weather Services, assisting the company in understanding NMHS operations, needs and priorities.

Abstract

The objective of this Committee is to monitor the Progress of this Initiative and assist GWEF in any manner we are requested to help with the approval of IFMS Council. The GWEF was formed in early 2018, following a meeting organized by the World Bank in late 2017. Its primary objective is to strengthen public-private-sector collaboration internationally as part of the World Bank global disaster risk reduction strategy through improved weather services in all countries. The World Bank GWEF complements and supports WMO's Open Consultative Platform (OCP) created at the 2019 WMO Congress and WMO's Capacity Building strategy for developing countries.

IFMS participated in all the major meetings held by WMO-WBG on this topic, and has had representation in the GWEF (GWE Forum) Meetings.

A Webinar to educate IFMS Members about GWE is planned in 2020.

Committee 4: Dealing with WMO, WBG and other Similar Organizations

Harinder Ahluwalia: Jack Hayes, Keith Seitter, Michael Coughlan, Workneh Degefu



Objective: Relationship with WMO, WBG and other similar organizations for assisting each other and creating a win-win situation.

Define possible ways in which IFMS can collaborate with WMO and other organizations on a sustainable basis to strengthen GWE.





Abstract

This Committee has two important tasks to accomplish:

Task 4.1: Aligning IFMS Plans with WMO strategic plans/ priorities to increase cooperation

- 1. Study the WMO strategic Plan
- 2. Define any areas we can help in
- 3. Discuss with WMO areas of commonality
- 4. Implement ideas agreed to with WMO

Task 4.2: Gain support from WMO and other International Organizations such as the World Bank Group (WBG) and HMEI, etc.

- 1. Finalize from our side possible ways which can make IFMS collaborate with WMO and other organizations on a sustainable basis.
- 2. Prepare a Value Proposition why WMO and WBG should help IFMS both operationally and financially.
- 3. Write to WMO indicating:
 - a) What we can realistically do in the short term, medium term and longer term?
 - b) What do we expect from them?
- 4. After written communication, arrange a telecon.
- 5. Follow that up with a face to face meeting.
- 6. Once it is decided what we plan to do with them, prepare a plan to execute that which includes activities, required resources, any schedules, etc.
- 7. Select activities which can be realistically executed.
- 8. We will then look for volunteers to execute these activities.

The presentation will discuss the above Tasks and request for input from attendees about their ideas of cooperation with WMO and WBG. It is obvious that the first service we can provide to WMO is assistance in the Global Campus Initiative.





Committee 12: Promotion of Climate Change Issues with Governments & Public

Harinder Ahluwalia - All Council Members

Abstract

The objective of this Committee is to promote Government Investment and Public Education through a unified strategy.



Although this is a very important activity, it will be started in earnest in the coming year with the following activities:

- a) Prepare the mandate of this Committee in the area of promoting Government Investment and Public Education.
- b) Develop steps to achieve the above defined mandate and implement those steps.

Committee 13: Meetings and Conferences including WWOSC

Dr. Keith Seitter - Dr. Harinder Ahluwalia, Dr. Buruhani Nyenzi

Abstract



The objective of this Committee is to plan and organize IFMS Global Meetings (IGMs), any special Meetings and Conferences.

Up to now the meetings have been organized on an ad hoc basis. Six IGMs have been held.

The responsibility for organizing the IGMs should be on the host country with the help of the IFMS Council.

- a) Ensure there is a documented procedure to run meetings
- b) Study the feasibility of holding Conferences and their logistics

Recently we have introduced the idea of holding World Weather Open Science Conferences (WWOSC) at least every three years. This idea has been communicated to Meteorological Societies and will be further developed in this session and finalized thereafter to be presented to WMO.

Creation and sustainability of the European Meteorological Society

Dr. Bob Riddaway, President, European Meteorological Society



Bob Riddaway retired from the Met Office in the UK in 2005, though he continued working parttime at ECMWF for another ten years. After gaining a BSc in Physics and PhD in Meteorology from Edinburgh University, he joined the Met Office to do research. He soon found that training and operational meteorology and were more to his liking, so his career included being Head of Training, Joint Head of Forecasting and Head of Development Resourcing & Technology. Whilst at the Met Office he became involved in the education and training activities of WMO, and this still continues.





Abstract

The European Meteorological Society (EMS) was established in 1999 after a long gestation period. Since then, the number of Member Societies and Associate Members has grown. The EMS now forms an important component of the European meteorological community. An outline will be given of the membership and activities of the Member Societies. Also, the role of the EMS will be described with emphasis on the development of the EMS Annual Meeting and the action taken to ensure the financial sustainability of the EMS.

Presentation by a Guest Speaker & Societies

Argentinian Meteorological Society

Professor Oscar Andrés Frumento, is currently working for the University of Patagonia, San Juan Bosco

Puerto Madryn, Argentina and is also Research support staff for National Council of
Technical and Sciences Researches (CONICET) - Head of the Climatology Laboratory,

Aires.

His areas of Expertise are: Regional climate modelling: dust and volcanic ashes transport, Analysis of extreme precipitation events in arid and semiarid regions, and Planning and

CESIMAR. He did his Ph.D. from Department of Atmospheric Sciences, University of Buenos

implementation of local and regional near-surface meteorological networks.

He is a Member of the Working Group to the Third National Communication to the United Nations Framework Convention on Climate Change, "Climate change in Argentina: Trends and projections; Patagonia Region", 2013-2014. He has contributed to many books related to Meteorology and Climatology.

Abstract

He will present a few slides about actual status of CAM, the society of which he is an active member. He will be speaking about the Status and Progress made by CAM in the recent past.

FLISMET, institutional strengthening, collaboration and exchange



Met Graciela Salaberri, Uruguayan meteorologist, is an expert in operational synoptic meteorology, specialist in Disaster Risk Reduction, and in Local Development. Since December 2003, she has been a founding member of the Civil Society Amigos del Viento (http://www.amigosdelviento.org/), an organization dedicated to the promotion, dissemination and investigation of meteorological and environmental issues, in their technical, scientific and human dimensions. She is a Member of Secretariat permanent of the FLISMET 2010.

Abstract

FLISMET has been conceived as an organization that supports and contributes to the strengthening of capacities in the meteorological societies of Ibero-Latin America and the creation of new societies. The presentation will highlight the synergies between IFMS and FLISMET and how we can use this synergy as a bridge that contributes to having a strong relationship between the two societies.





Strengthening GWE through WMO & Volunteer-based Organization like IFMS to Create Weather Ready Nations (WRNs)

Dr. Louis W. Uccellini is the Director of the National Weather Service. In this role, Dr. Uccellini is responsible for



the day-to-day civilian weather operations for the United States, its territories, adjacent waters, and ocean areas. Previously, he held positions that include the Director of the National Centers for Environmental Prediction, the Director of the National Weather Service's Office of Meteorology and Senior Research Scientist at NASA's Goddard Space Flight Center.

Dr. Uccellini is a prolific author of more than 60 scientific articles on severe convective storms, snowstorms, and the use of satellite data in numerical forecast models. He also co-authored the widely acclaimed two-volume American Meteorological Society (AMS) monograph entitled *Northeast Snowstorms*.

In 2001, Dr. Uccellini received the U.S. Presidential Meritorious Executive Rank Award, and in 2006 he received the U.S. Presidential Distinguished Rank Award. In January 2012, he was elected the President of the American Meteorological Society and served from 2012 to 2013.

Dr. Uccellini has served as the US representative with the WMO since 2017.

Abstract

Dr. Uccellini will:

- Address the importance of a Volunteer-based Organization like IFMS for strengthening the Global Weather Enterprise
- Note outcomes of the WMO Congress cg18 related to public private engagement, with a focus on the importance of partnerships to deliver core mission goals and address vulnerability consistent with the WMO Strategic Plan
- Highlight both the NWS/WRN effort and the international Weather Ready Nations (WRNs) effort.

Progress Report of Tanzanian Meteorological Society since IFMS GM 5, Sept. 2018

Dr. Buruhani Nyenzi - President TMS - VP Administration IFMS

Abstract:



Dr. Buruhani Nyenzi will be presenting the Progress Report on activities carried out by the Tanzania Meteorological Society (TMS) since IGM-05. During this period two meetings were organized which were the TMS Annual General Meeting and a national workshop to present results to various stakeholders on Weather and Climate Information Services for Africa (WISER) Phase II project. Efforts to prepare a TMS Strategic Plan for TMS were initiated with its draft currently undergoing review. Efforts were also made to recruit more members and encourage all members to pay their annual membership fees on time as per the requirement.

More significant TMS supported Tanzania Meteorological Authority (TMA) in implementing one of its components on the WISER Phase II project in Tanzania. The component implemented by TMS was on Enhancing Capacity of Tanzania Meteorological Agency (TMA) in Provision of Climate Services in Agriculture, Energy, Marine transport, Disaster and Water Sectors under Weather and Climate Information Services for Africa (WISER) Phase II project. The component was successfully implemented with various communication channels established and people to communicate weather and climate information to the last mile were trained.





Progress Report of Ethiopian Meteorological Society since IFMS GM 5, Sept. 2018

Mr. Workneh Degefu

Abstract



- The Report will address activities carried out, events EtMS participated in and planned activities
- Activities carried out include awarding of scholarships, strengthen cooperation with stake holders, establishment of Female Research Award, Preparation of Guide for Users of Meteorological Information, preparation of a new website, organization of the 12th EtMS General Assembly and the revision of EtMS Regulation.
- Participation in events include attendance in several civil society organizations arranged meetings, other meetings EtMS was invited to, EtMS members excursion, etc.
- The report will also inform participants on EtMS planned activities.

Plenary Session to Discuss IFMS' Future Direction and Creation of Volunteer Force

Harinder Ahluwalia, Keith Seitter, Liz Bentley, Buruhani Nyenzi and S.K. Dash



The topics of this session will result from the discussions of previous sessions. Whichever topics require more discussions will be included.

In addition, we will include the two important topics discussed on the first day: How we can create a Volunteer Force and assist WMO and WBG in programs such as Global Campus and Capacity Building.

Date and place of next meeting: Dr. Harinder Ahluwalia

Closure of IGM6





ANNEX A: Acronyms/Abbreviations

ACT Accreditation/Certification and Training

ACM Asian Conference on Meteorology

AfMS African Meteorological Society (Regional Society of Africa)

AGU American Geophysical Union

AMOS Australian Meteorological & Oceanographic Society

AMS American Meteorological Society

AsMS Asian Meteorological Society (Regional Society of Asia)

CAM Centro Argentino de Meteorólogos

CCR Canadian Consortium for Research

CEO Chief Executive Officer

CG18 WMO Congress #18 (held in Geneva in June 2019)

CGU Canadian Geophysical Union

CMOS Canadian Meteorological and Oceanographic Society

CMS Chinese Meteorological Society

COMET Program established by UCAR and NOAA's NWS to promote a better

understanding of mesoscale meteorology

CWRA Canadian Water Resources Association

EAC East African Community

EMS European Meteorological Society

FLISMET Latino American Federation of Meteorological Societies

GFDRR Global Facility for Disaster Reduction and Recovery

GWE Global Weather Enterprise

GWEF Global Weather Enterprise Forum (a body to promote PPA Collaboration)

HMEI HydroMet Equipment Industry

Hydrology and Meteorology

IAMAS International Association of Meteorology and Atmospheric Sciences





ICSU International Council for Science

IFMS International Forum of Meteorological Society

IGM IFMS Global Meeting

IPCC Intergovernmental Panel on Climate Change

ISB International Society of Biometeorology

IUGG International Union of Geodesy and Geophysics

KMS Korean Meteorological Society

LDC Least Developed Countries

Met Meteorology

MMT Hungarian (Magyar) Meteorological Society

MOU Memorandum of Understanding

MSCT Meteorological Society of Chinese Taipei

MSJ Meteorological Society of Japan

NGO Non-Government Organization

NL Newsletter

NMHS National Meteorological and Hydrological Services

NMSoc National Meteorological Society

NWS National Weather Service

OCP Open Consultative Platform (to advise WMO Secretary General)

PAGSE Partnership Group for Science and Engineering

PPA Public Private and Academic (Sectors)

PPT Power Point

QMS Quality Management System

REC Regional Economic Cooperation (s) groupings in Africa USA

RMetS Royal Meteorological Society

RMS Regional Meteorological Society





SG Secretary General

SPMS South Pacific Meteorological Society

S&T Science and Technology

STA Science and Technology Australia

USA United States of America

VP Vice President

WB World Bank

WBG World Bank Group

WebEx Web Conferencing Software (Proprietary)

WMO World Meteorological Organization

WRN Weather Ready Nation

WWOSC World Weather Open Science Conference





ANNEX B: International Forum of Meteorological Societies

Relevant: Valuable: Unique: Helping WMO/WBG to create a 'Weather Ready Globe'.

The IFMS plays a key role in supporting developing and developed meteorological societies to be custodians of both the profession and science of meteorology, hydrology and oceanography in their own country or region. The real strength of the IFMS is that it brings together societies and related organisations to collaborate, deliver shared outcomes and share best practice for the benefit of all. The IFMS achieves this by creating a strong communications infrastructure – some of which is already there, the rest is being implemented.

The IFMS is distinct from the World Meteorological Organization (**WMO**). Whereas, the WMO is an agency of the United Nations that facilitates international agreement for observations, standards, data exchange and technology transfer among its 193-member states and territories through their National Hydro Meteorological Services (**NHMS**), the IFMS supports the individual National Hydro-Meteorological Societies (**NHMSoc**) to play an active role supporting the National Meteorological Services and science institutes in each nation. The fundamental goal of the IFMS is to foster and encourage communication and exchange of knowledge, ideas and resources among the world's meteorological societies. In other words, IFMS role is envisaged to be supplementing and supporting WMO and World Bank Group's (**WBG**) efforts to provide additional value to the population of the world. Whereas both WMO and WBG are employee-based organizations, IFMS is basically a volunteer-based organization.

The IFMS has over 37 direct international members, most of them are meteorological societies and some are those societies which use meteorology as an important ingredient in their profession, e.g. International Association of Bio-Meteorology, International Association of Meteorology and Atmospheric Sciences, etc. In fact, almost all Met Societies are members — most of them directly and some through Regional Societies such as EMS, FLISMET, etc. Together we take on the important role to help each other become stronger and support other developing societies, to help create a "Weather Ready Globe". We are also working towards creating new NHMSocs where none exists today.

IFMS can be considered to be playing the same role for the National Meteorological Societies of the World as WMO is playing for the National Meteorological Services of the world.



Currently the IFMS uses the volunteer services of its members. It aims to attract donor organisations to invest in the work of the IFMS. Because activities will continue to be delivered mostly by volunteers, the benefit of a small investment will produce a high yield. We encourage organizations and individuals to become donors.





ANNEX C: Value Proposition of IFMS

Some envisioned Value Propositions of the IFMS include:

1. Collaborating on joint activities

Objective: Collaboration between the NHMSocs on joint activities, where appropriate, to advance the science and profession of meteorology.

2. Establishing access to an information channel

Objective: To create meaningful communication channels to unite the member societies and provide a means for distributing information and creating discussion groups.

3. Gaining support from WMO and International Organizations such as the World Bank, etc.

Objective: To create a meaningful relationship with WMO to create a win- win situation.

4. Outreach to Developing Societies

Objective: Helping Developing Societies and creating new ones to address issues concerning global warming and create a "weather ready globe"

5. Creating Global Context/Collaboration with – EMS, FLISMET, EAC, etc.

Objective: Creating a global context for the varied activities of Met Societies and to collaborate with Regional Associations of Met Societies, such as the European Met Society (EMS), Iberian and Latin American Federation of Met Societies (FLISMET), African Regional Economic Cooperation (REC) groupings, etc., is a core activity for IFMS.

6. Assistance in Accreditation/Certification and Training (ACT)

Objective: Providing assistance in Accreditation/Certification and Training (ACT)

7. Assist WMO/WBG to promote Public-Private-Academic (PPA) Sector Partnerships

Objective: Help WMO and WBG create strong collaboration between Public/Private/University sectors to create bigger value by optimal use of resources.

8. Aligning IFMS Plans with WMO strategic plans/priorities to increase cooperation

Objective: To increase the probability of strong collaboration between WMO and IFMS for societal benefit, e.g. we are trying to assist WMO in their Global Campus Initiative.

9. Promoting the contributions of individuals

Objective: Promoting the contributions of individuals within the meteorological community and beyond by highlighting excellence.

10. Assistance to Industry through local Met Society to create Infrastructure & PPA Partnerships

Objective: Assistance to Industry through local Met Society to increase collaboration and assistance in connecting with business in that country to develop required infrastructure and support WMO/WBG effort to strengthen GWE through strong collaboration between PPA Sectors.





ANNEX D: Assisting WMO/WBG in Strengthening GWE

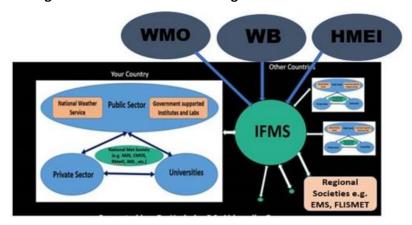
FACTS:

- Climate Change has intensified the frequency and severity of weather-related disasters requiring more accurate and reliable weather information
- Related S&T is advancing rapidly providing the opportunity to satisfy societal needs
- Implementation of new technology is sometimes slow
- Benefits of this rapid progress not reaching LDCs
- Currently there are contributions from the public and private sectors but not in an organized and conscious manner with some exceptions.

ACTION:

WMO/GFDRR-WBG believe that the GWE can only be strengthened by strong Collaboration between PPA Sectors. They have taken the lead for achieving this:

- Public/University Collaboration is already active, though it can be further strengthened with innovative steps
- Strong reluctance/resistance in many countries for PP Collaboration
- Some countries have even felt threatened by the presence of the foreign private sector in their country and complained to WMO
- This shows that a lot of convincing of NHMSs will be required to show the value of this collaboration
- The GWEF of WBG and OCP of WMO have been created to define issues and recommend solutions
- IFMS will assist WMO/WBG-GFDRR/HMEI in their noble initiative of strengthening GWE for combatting the effects of Global Warming.



Relationship between Global Weather Enterprise Players





ANNEX E: Summary of Committees

| # | Committee | Chairperson & Committee Members | |
|-----|---|--|--|
| 1. | Committee 1: Access to Communications Channels | Cam Chao - Liz Bentley, Harinder Ahluwalia, Buruhani Nyenzi & Sushil Dash | |
| 2 | Committee 2: | Liz Bentley - Oscar Frumento, Workneh Degefu, Yongyun Hu | |
| | Task 1: Cooperation with Regional Met Societies | | |
| | Task 2: Regional Weather Enterprise Forums | Oscar Frumento - Michael Coughlan, Liz Bentley and Workneh Degefu | |
| 3. | Committee 3: Value Proposition Implementation Committee | Buruhani Nyenzi - Yongyun Hu and Workneh Degefu | |
| 3.1 | Task 3.1: Collaboration on joint activities | Yongyun Hu - Buruhani Nyenzi, Jack Hayes and Harinder Ahluwalia | |
| 3.2 | Task 3.2: Membership Promotion & Outreach to developing Societies | Workneh Degefu - Sushil Dash, Oscar Frumento, Jack Hayes, Michael Coughlan and Liz Bentley | |
| 4 | Committee 4: Collaboration between IFMS and WMO, etc. | | |
| | Task 4.1: Gain support from WMO, WBG and HMEI, etc. | Harinder Ahluwalia, Jack Hayes, Keith Seitter, Michael Coughlan, Workneh Degefu | |
| | Task 4.2: Assist WMO/WBG to promote PPA Sector Partnerships | | |
| | Task 4.3: Aligning IFMS Plans with WMO strategic plans/ | | |
| | priorities to increase cooperation | | |
| 5. | Committee 5 | Keith Seitter - Harinder Ahluwalia, Jack Hayes, Liz Bentley, Yongyun Hu and Cam | |
| | Task 5.1: Financing Committee: | Chao | |
| | Task 5.2: Individual Funding through Member Societies | Cam Chao - Workneh Degefu, Sushil Dash, Oscar Frumento, Jack Hayes, Michael Coughlan and Liz Bentley | |
| 6 | Committee 6: ACT Committee | Liz Bentley - Keith Seitter, Cam Chao and Harinder Ahluwalia | |
| 7 | Committee 7: Best Practices Coordination Committee | Michael Coughlan - Oscar Frumento, Keith Seitter | |
| 8 | Committee 8: Webinar & Training | Sushil Dash - Michael Coughlan, Buruhani Nyenzi and Liz Bentley (especially for T part of ACT) | |
| 9. | Committee 9: Recognition of Individual Contribution | Buruhani Nyenzi - Sushil Dash, Oscar Frumento, Yongyun Hu and Liz Bentley | |
| 10. | Committee 10: GWE Monitoring Committee: | Jack Hayes- Keith Seitter and Harinder Ahluwalia | |
| 11. | Committee 11: Industry Committee | Pending - To be planned once other Committees are operational | |
| 12. | Committee 12: | Harinder Ahluwalia - All Council Members | |
| | Promotion of Climate Change Issues with Governments & Public | | |
| 13 | Committee 13: Meetings and Conference Committee | Keith Seitter - Harinder Ahluwalia, Buruhani Nyenzi | |





ANNEX F: IFMS Council Members 2018-2021



A Volunteer-based Organization Assisting World Meteorological Organization (WMO) & World Bank Group (WBG)

In Strengthening Global Weather Enterprise (GWE) and creating a "Weather Ready Globe"



www.ifms.org

Uniting World's Meteorological Societies to Collaborate and strengthen each other