

Joint RA II/RA VI Workshop on WIGOS

KEY OUTCOMES OF RA II-16

Minsk, Belarus

12-14 September 2017

Chung Kyu PARK



WMO OMM

World Meteorological Organization

Organisation météorologique mondiale

SURVEY REPORT

THE BASIC CAPABILITY OF NMHSs IN RA II (ASIA)

OCT-NOV 2016

EXECUTIVE SUMMARY

- Most of the Members maintained **highly qualified staff** with specialized training with a structured training plan for professional, technical and supporting staff.
- The number of Members operating ground stations to receive **high-resolution geostationary satellite images** has increased significantly.
- Much more Members used the service of **Regional Instrument Centres (RICs)** to ensure the accuracy of the instruments.
- In general, **operational observation networks** in the Region have been well maintained or enhanced.
- However there is also a **serious concern** that observational infrastructure, such as weather radar, wind profiler and lightning detection networks to detect severe weather phenomena, was far from sufficient in some Members.



SURVEY REPORT

THE BASIC CAPABILITY OF NMHSs IN RA II (ASIA)

OBSERVING SYSTEMS

	1	2	3	4	5	14	15	17	19	20
KAZ	0	0	0	0	0	X	X	X	X	0
KGZ	X	0	0	0	0	0	0	X	X	0
MNG	0	0	0	0	0	0	0	X	0	0
RUS	0	0	0	0	0	0	0	0	0	0
TJK										
UZB	0	X	0	0	0	0	0	X	X	0

QUESTIONS

1. Carries out regular maintenance and calibration of observation instruments
2. Implements reliability measures on quality management routines and procedures of weather observations
3. Implements real-time delivery of measured observations at remote stations
4. Enhances the temporal and spatial coverage of weather measurements
5. Has qualified maintenance technicians
14. Operates ground station(s) to receive high-resolution images from geostationary meteorological satellites
15. Operates ground station(s) to receive high-resolution images from polar-orbiting meteorological satellites
17. Operates a lightning location network
19. Ensures the accuracy of the instruments by using the service of Regional Instrument Centre (RIC)
20. Ensures the accuracy of the instruments by using the service of national standards laboratory/institution

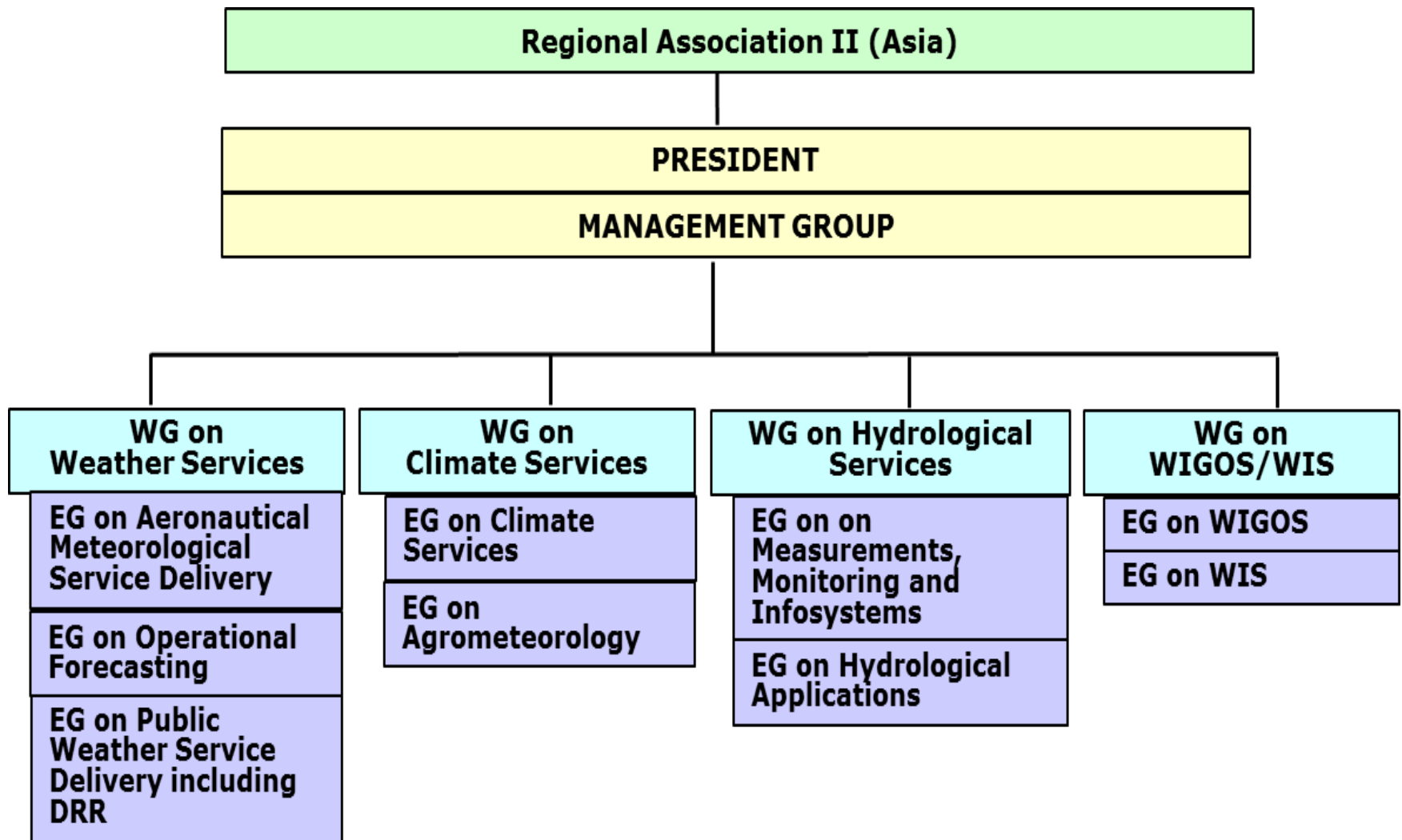
16th Session RA II (Asia)

- ❖ **Place: Abu Dhabi, UAE, Dusit Thani Hotel**
- ❖ **Period: 12-16 Feb 2017**
- ❖ **Regional Conference: 10-11 Feb 2017**
- ❖ **31 Members out of 35 (18 PRs / Directors)**
- ❖ **14 Resolutions and 37 Decisions**

President: Mr Abdullah Ahmed AL MANDOOS (PR, United Arab Emirates)

Vice-president: Dr Rishi Ram SHARMA (PR, Nepal)

RA II SUBSIDIARY BODY STRUCTURE 2017-2020



Chairperson of RA II WG-WIGOS/WIS and Coordinators of Expert Groups

Working Group on WIGOS/WIS (WG-WIGOS/WIS)

Chairperson: Mr Yongqing Chen (China)

Coordinator, Expert Group on WIGOS (EG-WIGOS)	Mr Yongqing Chen	China
Coordinators, Expert Group on WIS (EG-WIS)	Ms Xiang Li	China
	Mr Kenji Tsunoda	Japan

MEMBERS of RA II EG ON WIGOS (EG-WIGOS)

WORKING GROUP ON WMO INTEGRATED GLOBAL OBSERVING SYSTEM AND WMO INFORMATION SYSTEM (WG-WIGOS/WIS)

Chairperson: Mr Yongqing Chen, China

Expert Group on WIGOS (EG-WIGOS)

EG-WIGOS	Name	Member
Coordinator	Mr Yongqing Chen	China
Leader in Monitoring and Reviewing the Implementation of EGOS IP in RA II	Ms GUO Jianxia	China
Leader in the web-interface for sharing status of standardization and experience and monitoring synoptic observations in RA II	Mr Chulwoon Choi	Republic of Korea
Leader in Capacity-building in Radar Techniques in the Southeast Asia	Mr Koichiro Kakihara	Japan
Leader in Enhancing the Availability and Quality Management Support for NMHSs in Surface, Climate and Upper-air Observations	Mr Nobuyuki Tanaka	Japan
Leader in Developing a Sand and Dust Storm Warning Advisory and Assessment System (SDS-WAS) in Asia Node	Mr ZHOU Qingliang	China
	Mr Hasan Aldashti	Kuwait
Leader in Developing Support for NMHSs in Satellite Data, Products and Training	Mr Hiroshi Kunimatsu	Japan
	Mr Dohyeong Kim	Republic of Korea
Leader of Task Team on Regional Basic Observing Network	Mr Nadeem Faisal	Pakistan
	Ms SHI Lijuan	China
Leader of Task Team on Aircraft Based Observations	Mr Mohammed Babidhan	Saudi Arabia

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KEY OUTCOMES OF RA II-16

Regional Priorities 2020–2023 for the contribution to the WMO-wide priorities

Forward-looking 4-years plan of regional activities

Efficient subsidiary body structure

Five Pilot Projects

- Three continued projects: NWP, Medium range weather forecasts, AMDAR
- Two new projects: Impact-Based Forecasting and DRR

WMO DRR Roadmap Implementation Plan in RA II

Guidance on establishing a WMO Regional WIGOS Centre in RA II as pilot project

Development of the Global Cryosphere Watch (GCW) observing network in the high mountain regions in Asia

WIGOS Pilot project “Cryosphere monitoring to understand the trend of glacial hydrology of high Asia Mountains”



KEY OUTCOMES OF RA II-16 (WIGOS/WIS)

- Update Regional WIGOS/WIS Implementation Plan and RBSN/RBCN
- Establish a pilot RBON building on the existing RBSN & RBCN - Formal establishment of RBON (Cg-19): additional commitments to WIGOS implementation
- Technical Guidance for establishing Regional WIGOS Centres (Offer of China and Japan)
- Formulate the WIGOS contributions to the RA II priorities for 2020-2023
- Invite RA II Members to participate in SG-RFC and associated ITU regional groups (RCC, APT and ASMG), and RA-II Working Group on WIS and WIGOS to monitor radio frequency matters
- GISCs and RTCs commit to WIS related training (China, Japan, Korea and the Russia Fed.)
- Asia High Mountains GCW observing network - Pilot project “Cryosphere monitoring to understand the trend of glacial hydrology of high Asia Mountains”
- Archive the CryoNet data on Members Data Centers, and make these interoperable with the GCW Data Portal



KEY OUTCOMES OF RA II-16 (WIGOS)

RA II WIGOS IMPLEMENTATION PROJECTS

No.	Project title	Project Coordinator(s)
I	Monitor and Review the Implementation of EGOS- IP in RA II	China; Hong Kong, China
II	The web-interface for sharing status of standardization and experience and monitoring synoptic observations in RA II	Republic of Korea
III	Capacity Building in Radar Techniques in the Southeast Asia	Japan, Thailand, Malaysia, and Indonesia (RA V)
IV	Enhance the Availability and Quality Management Support for NMHSs in Surface, Climate and Upper-air Observations	Japan, China
V	Developing a Sand and Dust Storm Warning Advisory and Assessment System (SDS-WAS) in Asia Node	China
VI	Develop Support for NMHSs in Satellite Data, Products and Training	Japan, Republic of Korea

RA II OP 2016-2019 (WIGOS)

- Update of Regional WIGOS Implementation Plan (**RWIP**)
- **Pre-operation** of WIGOS in region II
- **Regular maintenance and calibration** of observation instruments, and implementation of reliability measures on quality management routines and procedures of weather observations
- **Maintenance and enhancement** of the measuring stations in the Region
- Implementation of Implementation Plan for the Evolution of Global Observing Systems (**EGOS-IP**)
- Development of Regional Basic Observing Network of RA II (**RBON-II**)
- Development and implementation of the **WIGOS data quality monitoring system (WDQMS)**
- Integration of Observing Systems for **supporting Disaster Risk Reduction and aviation services**
- Maintenance/enhancement of **operational weather radar stations** in the Region
- Maintenance/enhancement of ground station(s) in the Region to receive **high-resolution images from geostationary meteorological satellites**
- Growth in spatial and temporal coverage of **hydrological observation networks**



RA II OP 2016-2019 (WIGOS)

- **Establish a task team** to analyze the main requirement of pre-operation of WIGOS and challenges for pre-operation of WIGOS in RA II;
 - **Develop a guidance to pre-operation of WIGOS** in region II for Members;
 - Encourage Members to finalize **the national WIGOS implementation plan**.
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- **Implement the RA II Pilot Project** to enhance the availability and quality management support for NMHSs in surface, climate and upper-air observations
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- Collect and share **standard and best practices documents** from RA II Members;
 - Encourage the **collection of metadata** on observing systems;
 - Support and standard of **Regional Instrument Centre (RIC)**;
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- Encourage Members to **develop national reports** on progress of Implementation Plan for the Evolution of Global Observing Systems (**EGOS-IP**);
 - **Make gap analysis of observing network in RA II** on the basis of users' requirements and existing observing network.
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- **Survey** the comprehensive review of all existing observing systems in the Region;
 - Hold a workshop to **develop a concept of RBON-II**;
 - **Develop the RBON-II** by a task team and submit to the RA II session.
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- **Organize RIC training workshops** to ensure the accuracy of the instruments they use
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- **Develop integrated weather radar product** for severe weather monitoring at the sub- regional level;
 - **Develop integrated surface-based and space-based operational products**
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- Develop strategic plan on development of the **Southeast Asia radar network**;
 - Encourage and facilitate exchange and **training on relevant know-how**.
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- Continue implementation of the RA II Pilot Project to develop support for NMHSs in **satellite data, products and training**;
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- Maintain stations **with long hydrological records for climate services**.



RA II Regional WIGOS Implementation Plan 2017-2020

KEY ACTIVITY AREAS FOR REGIONAL WIGOS IMPLEMENTATION

- Management of the Regional WIGOS Implementation in RA II
- Collaboration with WMO and co-sponsored observing systems
- Design, planning and optimized evolution of WIGOS component observing systems
- Integrated Observing System Operation and Maintenance
- Integrated Quality Management
- Standardization and Interoperability
- WIGOS Information Resource
- Data Discovery, Delivery and Archival
- Capacity Development
- Communication and Outreach



Thank you
Спасибо



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