4th session of the
SAHF EXECUTIVE COUNCIL MEETING

SAHF Strategic Direction for Observations for improved forecasting

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DISCUSSION OUTLINE / OBJECTIVES

I. Review, and propose amendments (as appropriate), to the draft Observations Strategy 2030 proposed by the SAHF WG/OBS and endorse it
II. Review, and propose amendments (as appropriate), to the draft Roadmap proposed by the SAHF WG/OBS and endorse it
III. Decide on actions to be taken to address each of the aspects outlined in paragraph 2.4 of the White Paper (alignment with RA II implementation of RBON, data-sharing agreements and protocols, DataEx compatible with WIS2.0, engaging EUMETSAT and other satellite data providers)

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Observations Strategy and Roadmap

This session focus on the presentation of the Observations Strategy and Roadmap for improving forecasting, which was prepared by the SAHF WG/OBS. This includes strengthening infrastructure and data-sharing mechanisms, and decisions on next steps for OBN development.

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South Asia's 2030 Vision for Observations

Regional integration of high-quality observations to best represent the state of the atmosphere at any place in South Asia and at any time in three dimensions

SAHF Observations Strategy 2030

- *Pillar 1: Improved Availability and Quality* – main goal: establishing a South Asia Regional Basic Observing Network (RBON) and ensuring calibration facilities in the region.
- *Pillar 2: Data and Knowledge Exchange* – main goal: ensuring operational use of a data exchange platform compatible with international standards, and availability of a pool of observation experts.
- *Pillar 3: Integration and Optimal Use* – main goal: optimizing the use of satellite and radar data in the region.

SAHF Observations Strategy 2030

Improved Availability and Quality

- More observations available and shared across the region
- Reliable observations and calibrated stations in the region

Data and Knowledge Exchange

- Robust, cost-effective and agile platform for efficient and easy data exchange compatible with international standards
- Pool of experts to support the region in instrumentation and ICT

Integration and Optimal Use

- Radar composite
- Optimal use of satellite data
- Regional Precipitation Grid using Public-Private-Partnerships

Pillar 1: Improved Availability and Quality – Goal 1.1

Goal 1.1: More observations available and shared across the region

Aim 1.1: To establish a South Asia Regional Basic Observation Network (RBON) for improving monitoring, forecasting and application services in the region.

Strategic Actions:

SA1.1.1: Establishing data-sharing agreements and protocols for a South Asia RBON.

SA1.1.2: Implementing a South Asia RBON following the Regional Association II plans.

SA1.1.3: Performing quality control of observations.

SA1.1.4: Capacity building.

Pillar 1: Improved Availability and Quality – Goal 1.2

Goal 1.2: Reliable observations and calibrated stations in the region

Aim 1.2: Sensors are calibrated as per the WMO standards across the region.

Strategic Actions:

SA1.2.1: Establishing a regional instrument centre as per the WMO standards.

SA1.2.2: Supporting country calibration of sensors at the regional centre.

SA1.2.3: Capacity building.

Pillar 2: Data and Knowledge Exchange – Goal 2.1

Goal 2.1: Robust, cost-effective and agile platform for efficient and easy data exchange compatible with international standards

Aim 2.1: To ensure standardized data exchange within the SAHF region.

Strategic Actions:

SA2.1.1: Strengthening DataEx as the SAHF data exchange platform.

SA2.1.2: Making DataEx compatible with WIS2.0.

Pillar 2: Data and Knowledge Exchange – Goal 2.2

Goal 2.2: Pool of experts to support the region in instrumentation and ICT

- **Aim 2.2:** To enhance partnerships and collaborations within the region in instrumentation and ICT in order to support operation and maintenance of hydromet stations in the region.

Strategic Actions:

SA2.2.1: Enhancing partnerships and collaborations with WMO Regional Training Centres (RTCs) within and outside the region and attachment trainings.

SA2.2.2: Supporting secondments of instrumentation and ICT staff to assist in operation and maintenance, while building the capacity of local staff.

Pillar 3: Integration and Optimal Use – Goal 3.1

Goal 3.1: Radar composite.

Aim 3.1: To exchange radar data and make available a composite for use by all SAHF members.

Strategic Actions:

SA3.1.1: Establishing radar data-sharing agreements and protocols.

SA3.1.2: Developing a radar composite and making data available through DataEx.

SA3.1.3: Capacity building on manipulation and use of radar composite data.

Pillar 3: Integration and Optimal Use – Goal 3.2

Goal 3.2: Optimal use of satellite data.

Aim 3.2: To ensure that all available satellite data are available and used by SAHF members.

Strategic Actions:

SA3.2.1: Enhancing partnerships and collaborations with EUMETSAT and available satellite data providers in the region i.e. India, Korea, Japan and China.

SA3.2.2: Capacity building on the use of satellite data.

Pillar 3: Integration and Optimal Use – Goal 3.3

Goal 3.3: Regional precipitation grid using Public-Private-Partnerships

Aim 3.3: To pilot a regional precipitation grid.

Strategic Actions:

SA3.3.1: Establishing a public-private partnership using commercial microwave links.

SA3.3.2: Developing a pilot a regional precipitation grid to enhance spatial coverage and accuracy of precipitation forecasts.

SA3.3.3: Capacity building on manipulation and use of the regional precipitation grid data.

Observations Roadmap – Goal 1.1

Activities	Timeline						Partners	Funding Source
	2025	2026	2027	2028	2029	2030		
PILLAR 1: IMPROVED AVAILABILITY AND QUALITY								
Goal 1.1: More observations available and shared across the region								
A1.1.1: Establishing data-sharing agreements and protocols for a South Asia RBON								CREWS-SA
A1.1.2: Implementing a South Asia RBON following the Regional Association II plans								CREWS-SA
A1.1.3: Performing quality control of observations.								CREWS-SA
A1.1.4: Capacity building/Trainings								CREWS-SA

Observations Roadmap – Goal 1.2

Activities	Timeline						Partners	Funding Source
	2025	2026	2027	2028	2029	2030		
PILLAR 1: IMPROVED AVAILABILITY AND QUALITY								
Goal 1.2: Reliable observations and calibrated stations in the region								
A1.2.1: Establishing a regional instrument centre as per the WMO standards							IMD in-country contribution	Resource mobilization required
A1.2.2: Supporting country calibration of sensors at the regional centre								Resource mobilization required
A1.2.3: Capacity building/Trainings								Resource mobilization required

Observations Roadmap – Goal 2.1

Activities	Timeline						Partners	Funding Source
	2025	2026	2027	2028	2029	2030		
PILLAR 2: DATA AND KNOWLEDGE EXCHANGE								
Goal 2.1: Robust, cost-effective and agile platform for efficient and easy data exchange compatible with international standards								
A2.1.1: Strengthening DataEx as the SAHF data exchange platform							RIMES, WMO	CREWS-SA
A2.1.2: Making DataEx compatible with WIS2.0							RIMES, WMO	CREWS-SA

Observations Roadmap – Goal 2.2

Activities	Timeline						Partners	Funding Source
	2025	2026	2027	2028	2029	2030		
PILLAR 2: DATA AND KNOWLEDGE EXCHANGE								
Goal 2.2: Pool of experts to support the region in instrumentation and ICT								
A2.2.1: Enhancing partnerships and collaborations with WMO Regional Training Centres (RTCs) within and outside the region and attachment trainings							WMO	CREWS-SA
A2.2.2: Supporting secondments of instrumentation and ICT staff to assist in operation and maintenance, while building the capacity of local staff								Resource mobilization required

Observations Roadmap – Goal 3.1

Activities	Timeline						Partners	Funding Source
	2025	2026	2027	2028	2029	2030		
PILLAR: INTEGRATION AND OPTIMAL USE								
Goal 3.1: Radar composite								
A3.1.1: Establishing radar data-sharing agreements and protocols								CREWS-SA
A3.1.2: Developing a radar composite and making data available through DataEx							IMD, RIMES	CREWS-SA
A3.1.3: Capacity building on manipulation and use of radar composite data								CREWS-SA

Observations Roadmap – Goal 3.2

Activities	Timeline						Partners	Funding Source
	2025	2026	2027	2028	2029	2030		
PILLAR: INTEGRATION AND OPTIMAL USE								
Goal 3.2: Optimal use of satellite data								
A3.2.1: Enhancing partnerships and collaborations with EUMETSAT and available satellite data providers in the region i.e. India, Korea, Japan and China							RIMES	Resource mobilization required
A3.2.2: Capacity building on the use of satellite data								Resource mobilization required

Observations Roadmap – Goal 3.3

Activities	Timeline						Partners	Funding Source
	2025	2026	2027	2028	2029	2030		
PILLAR: INTEGRATION AND OPTIMAL USE								
Goal 3.3: Regional precipitation grid using Public-Private-Partnerships								
A3.3.1: Establishing a public-private partnership using commercial microwave links								CREWS-SA
A3.3.2: Developing a pilot a regional precipitation grid to enhance spatial coverage and accuracy of precipitation forecasts								CREWS-SA
A3.3.3: Capacity building on manipulation and use of the regional precipitation grid data								CREWS-SA

DECISIONS

- Endorse and adopt the Observations Strategy 2030 and Roadmap for implementation.
- Agree that SAHF be considered a sub-region of RA II to facilitate and expedite the RBON implementation, considering the RA II-18(I) Resolution 4.4./2 for the implementation of a RBON in RA II.
- Request RIMES, in coordination with the WB and WMO technical teams, to prepare draft data-sharing agreements and protocols among SAHF members and submit to SAHF EC by September 2025 for consideration.
- Agree that DataEx will continue to be used for data exchange among SAHF members; but at the same time, requested RIMES and WMO to develop a work plan to make DataEx compatible with WIS2Box and submit it to SAHF EC by September 2025 for consideration.
- Request RIMES, in coordination with the WB and WMO technical teams, to coordinate with EUMETSAT and other satellite data providers on their plans for making data available in the region and their training opportunities, and report back to SAHF EC by Q4 2025 for consideration and defining further actions.

Thank you

This work has been prepared with the financial support from World Bank's Resilient Asia Program, funded by the UK government's Foreign Commonwealth Development Office (FCDO). This funding is delivered through Climate Action for a Resilient Asia (CARA), the UK's flagship regional programme to build climate resilience in South Asia, Southeast Asia and the Pacific islands