



WORLD
METEOROLOGICAL
ORGANIZATION

ClimSA Training Workshop on strategic and implementation planning for sustainable observations

- Tentative Agenda -

Online pre-sessions: National presentations			
08 and 09 April 2026			
Facilitator: R. Merrouchi			
Item	Time	Content/Topics	Facilitator/Speaker
1	Day 1 09:00-12:00	<ul style="list-style-type: none">• <i>National observing networks: challenges and opportunities, existing NSPs, Sustainability aspects, 8 country presentations</i><ul style="list-style-type: none">○ <i>Organigram (who is in charge of observations – network design, maintenance, et.)</i>○ <i>Stocktake – what already exists</i>○ <i>Challenges</i>○ <i>Strategy (planning) of the evolution of observing networks</i>○ <i>Experience with projects for improving observational capabilities</i>	(6 Meteorology & 2 Hydrology)
2	Day 2 09:00-12:00	<i>National observing networks: challenges and opportunities (continued), (8 presentations, SWIO met and Hydrology)</i>	(8 presentations, SWIO met and Hydrology)

Tentative Programme

Day-1 of Training Workshop

Monday, 13 April 2026, (Morning Session)			
Facilitator: S. Linnerts			
Item	Time	Content/Topics	Facilitator/Speaker
	08:30-09:00	Registration of participants	
1	09:00-09:30 (30 mins)	Opening session <ul style="list-style-type: none"> • Welcome • Introduction and purpose of workshop 	J. Hasegawa – WMO - online SAWS – host ClimSA - Saeed or JB
2	09:30-10:30 (60 mins)	<ul style="list-style-type: none"> • WIGOS as the global framework for integrated observing systems • Leadership role of NMHSs in national WIGOS implementation (Chapter 5) • Q & A session 	K. Premec (WMO) R. Merrouchi (WMO)
3	10:30-11:00 (30 mins)	Coffee Break & Group Photo	
4	11:00-12:15 (75 mins)	<ul style="list-style-type: none"> • WIGOS implementation and partnerships (Chapter 6) • WMO Principles and guidelines for observing network design, planning and management, • GBON and RBON concepts and design principles, • New draft of hydrological network design guidelines, 	R. Merrouchi (WMO) K. Premec (WMO) K. Premec (WMO) J. Naidoo (S. Africa)
5	12:15-12:30 (15 mins)	Q & A session	R. Merrouchi (WMO)
	12:30-14:00 (90 mins)	Lunch Break	

Monday, 13 April 2026, (Afternoon Session)			
Facilitator: K. Premec			
Item	Time	Content/Topics	Facilitator/Speaker
1	14:00-14:30 (30 mins)	<ul style="list-style-type: none"> • RBON design and implementation in RA I (<ul style="list-style-type: none"> ○ Hazard identification and prioritization ○ Key Variables selection ○ Requirements identification ○ Network design based on the key variables identified by the RA ○ Q & A 	S. Linnerts (S. Africa)
2	14:30-15:00 (30 mins)	<ul style="list-style-type: none"> • Integrating Observations and Earth System Modelling in a Data-Sparse Region 	M-J. Bopape (S. Africa)
3	15:00-15:40 (40 mins)	<ul style="list-style-type: none"> • Remote sensing network design: <ul style="list-style-type: none"> ○ <i>Weather radars Technology selection, coverage, siting, competencies</i> 	T. Soubai (Morocco)

Monday, 13 April 2026, (Afternoon Session)			
Facilitator: K. Premec			
Item	Time	Content/Topics	Facilitator/Speaker
		<ul style="list-style-type: none"> ○ <i>Lightning detection, Technology selection, coverage, siting, competencies</i> ○ Q & A 	
	15:40-16:00 (20 mins)	Coffee Break	
4	16:00-16:30 (30 mins)	<ul style="list-style-type: none"> • Regional perspective: Southern African Development Community (SADC) observing networks 	S. Linnerts (S. Africa)
5	16:30-17:20 (50 mins)	<ul style="list-style-type: none"> • Transboundary hydrometeorological networks in the SADC region • Transboundary hydrometeorological networks in the Nile region 	M. Musariri (S. Africa) W. Otieno, WMO remotely
6	17:20-17:30 (10 mins)	<ul style="list-style-type: none"> • Q & A and wrap up of the day 	K. Premec (WMO)

Day-2 of Training Workshop

Tuesday, 14 April 2026, (Morning Session)			
Facilitator: R. Merrouchi			
Item	Time	Content/Topics	Facilitator/Speaker
1	09:00-09:15 (15 mins)	<ul style="list-style-type: none"> Review of the first day 	R. Merrouchi (WMO)
2	09:15-10:30 (75 mins)	<ul style="list-style-type: none"> <i>Pacific Regional Observations Network Strategy</i> The Australian approach to observations planning and strategy BMKG strategy MeteoFrance strategy (TBC) 	M. Ratuki or A. Chandra (TBC) - online R. Braaten (Australia) - online R. Yasmin (Indonesia) - online TBD
	10:30-10:45 (15 mins)	Coffee Break	
3	10:45-11:15 (30 mins)	<ul style="list-style-type: none"> SAWS existing infrastructure, challenges and opportunities 	TBD – SAWS representative
4	11:15-11:45 (30 mins)	<ul style="list-style-type: none"> DGM existing infrastructure, challenges and opportunities 	T. Soubai (Morocco)
5	11:45-12:15 (30 mins)	<ul style="list-style-type: none"> Existing National capabilities: Recap of the pre-sessions concerning national challenges and opportunities and lessons learned 	R. Merrouchi (WMO)
6	12:15-12:30 (15 mins)	Q & A session	R. Merrouchi (WMO)
	12:30-14:00 (90 mins)	Lunch Break	

Tuesday, 14 April 2026 (Hybrid) - Afternoon Session			
Facilitator: B. El Johra			
Item	Time	Content/Topics	Facilitator/Speaker
1	14:00-14:30 (30 mins)	<ul style="list-style-type: none"> <i>Introduction to WIGOS RRR</i> 	K. Premec (WMO)
2	14:30-15:00 (30 mins)	<ul style="list-style-type: none"> <i>Strategic planning for observation</i> <i>Methodology, vision, strategic axes, KPIs, action plan</i> 	S. Linnerts (S. Africa)
3	15:00-15:30 (30 mins)	<ul style="list-style-type: none"> South Africa Hydrological observing capabilities and strategic planning for observation 	Maswuma Zacharia, DWS South Africa
	15:30-15:45 (15 mins)	Coffee Break	
4	15:45-16:15 (30 mins)	<ul style="list-style-type: none"> Case study -: DGM Strategic planning for observation 	T. Soubai (Morocco)
5	16:15-16:35 (20 mins)	<ul style="list-style-type: none"> Low Cost observing networks: lessons learned <ul style="list-style-type: none"> 3D printed stations, TAHMO 	J. Mungai, (Kenya)
6	16:35-17:00 (25 mins)	<ul style="list-style-type: none"> Innovative and sustainable solution in Hydrology 	Salvador Peña-Haro , HydroHub think Tank, remotely
7	17:00-17:30 (30 mins)	<ul style="list-style-type: none"> Multi-criteria analysis applied to observational networks 	R. Merrouchi (WMO)
8	17:30-17:45 (15 mins)	Q & A session <i>and Wrap up of the day</i>	K. Premec (WMO)

Day-3 of Training Workshop

Wednesday, 15 April 2026 (Morning Session)			
Facilitator: M. Musariri			
Item	Time	Content/Topics	Facilitator/Speaker
1	09:00-09:10 (10 mins)	<ul style="list-style-type: none"> Review of the second day 	K. Premec (WMO)
2	09:10-09:40 (30 mins)	<ul style="list-style-type: none"> Overview of strategic planning tools: <ul style="list-style-type: none"> <i>SWOT, NOISE, SOAR</i> <i>Impact–Effort matrix, prioritization matrices</i> 	B. El Johra (Morocco)
3	09:40-09:50 (10 mins)	<ul style="list-style-type: none"> Introduction to the group work 	R. Merrouchi (WMO)
4	09:50-10:30 (40 mins)	<ul style="list-style-type: none"> Group sessions (drafting session) <ul style="list-style-type: none"> <i>Either SWOT or NOISE applied to national context</i> <i>Key challenges and opportunities</i> 	Group moderators: R. Merrouchi (WMO), K. Premec (WMO) B. El Johra (Morocco) S. Linnerts (S. Africa) M-J. Bopape (S. Africa)
	10:30-10:45 (15 mins)	Coffee Break	
5	10:45-11:15 (30 mins)	<ul style="list-style-type: none"> Group presentations 	Rapporteurs
6	11:15-11:30 (15 mins)	<ul style="list-style-type: none"> Identification of end-user requirements: <ul style="list-style-type: none"> <i>Key stakeholders (360° feedback collection)</i> <i>Methods for collecting user needs (survey, online questionnaire, workshop...)</i> 	B. El Johra (Morocco)
7	11:30-11:40 (10 mins)	<ul style="list-style-type: none"> Introduction to the group work 	R. Merrouchi (WMO)
8	11:40-12:30 (50 mins)	<ul style="list-style-type: none"> Group sessions (drafting session) <ul style="list-style-type: none"> <i>User requirements matrix</i> <i>Hazards identification and prioritization</i> 	Group moderators: R. Merrouchi (WMO), K. Premec (WMO) B. El Johra (Morocco) S. Linnerts (S. Africa) M-J. Bopape (S. Africa)
	12:30-13:45 (75 mins)	Lunch Break	

Wednesday, 15 April 2026, (Afternoon Session)			
Facilitator: M. Musariri			
Item	Time	Content/Topics	Facilitator/Speaker
1	13:45-14:15 (30 mins)	<ul style="list-style-type: none"> Group presentations 	Rapporteurs
2	14:15-14:40 (25 mins)	<ul style="list-style-type: none"> Developing a Step-by-Step Methodology for a National Observation Strategy 	S. Linnerts (S. Africa)
3	14:40-14:50 (10 mins)	<ul style="list-style-type: none"> Introduction to the group work 	B. El Johra (Morocco)
4	14:40-15:10 (30 mins)	<ul style="list-style-type: none"> Group sessions (drafting session) <ul style="list-style-type: none"> <i>The vision</i> 	Group moderators: R. Merrouchi (WMO), K. Premec (WMO) B. El Johra (Morocco) S. Linnerts (S. Africa)

Wednesday, 15 April 2026, (Afternoon Session)			
Facilitator: M. Musariri			
Item	Time	Content/Topics	Facilitator/Speaker
			M-J. Bopape (S. Africa)
5	15:10-15:30 (20 mins)	<ul style="list-style-type: none"> Group presentations 	Rapporteurs
	15:30-15:45 (15 mins)	Coffee Break	
6	15:45-15:55 (10 mins)	<ul style="list-style-type: none"> Introduction to the group work 	B. El Johra (Morocco)
7	15:55-16:35 (40 mins)	<ul style="list-style-type: none"> Group sessions (drafting session) <ul style="list-style-type: none"> <i>The strategic axis</i> 	Group moderators: R. Merrouchi (WMO), K. Premec (WMO) B. El Johra (Morocco) S. Linnerts (S. Africa) M-J. Bopape (S. Africa)
8	16:35-17:00 (25 mins)	<ul style="list-style-type: none"> Group presentations 	Rapporteurs
9	17:00-17:20 (20 mins)	<ul style="list-style-type: none"> <i>Development of sub-objectives for strategic axis – DGM experience</i> 	B. El Johra (Morocco)
10	17:20-17:30 (10 mins)	<ul style="list-style-type: none"> Q & A session and Wrap up of the day 	R. Merrouchi (WMO)

Day-4 of Training Workshop

Thursday, 16 April 2026 (Morning Session)			
Facilitator: K. Premec			
Item	Time	Content/Topics	Facilitator/Speaker
1	09:00-09:10 (10 mins)	<ul style="list-style-type: none"> Review of the third day 	R. Merrouchi (WMO)
2	09:10-09:40 (30 mins)	<ul style="list-style-type: none"> Guidelines on development of Operation and maintenance plan 	D. Hiscock (UKMO), onliney
3	09:40-10:10 (30 mins)	<ul style="list-style-type: none"> Measurement traceability assurance 	E. Buyukbash (WMO) online
4	10:10-10:30 (20 mins)	<ul style="list-style-type: none"> Key elements for sustainable operations: <ul style="list-style-type: none"> <i>Procurement strategies</i> <i>Procurement (Training, documentation, spare parts, tools)</i> 	S. Linnerts (S. Africa)
	10:30-10:45 (15 mins)	Coffee Break	
5	10:45-11:15 (30 mins)	<ul style="list-style-type: none"> AWS generic tender specifications 	R. Merrouchi (WMO)
6	11:15-11:45 (30 mins)	<ul style="list-style-type: none"> Maintenance organization models: <ul style="list-style-type: none"> <i>Centralized vs decentralized</i> <i>Internal vs external</i> <i>Financing maintenance and operations. e.g for hydrology</i> 	R. Merrouchi (WMO) S. Linnerts (S. Africa) W. Otieno, WMO remotely

Thursday, 16 April 2026 (Morning Session)			
Facilitator: K. Premec			
Item	Time	Content/Topics	Facilitator/Speaker
7	11:45-12:00 (15 mins)	Q & A session	R. Merrouchi (WMO)
8	12:00-12:10 (10 mins)	<ul style="list-style-type: none"> Introduction to the group work 	S. Linnerts (S. Africa)
	12:10-13:30 (80 mins)	Lunch Break	

Thursday, 16 April 2026 (Afternoon Session)			
Facilitator: S. Linnerts			
Item	Time	Content/Topics	Facilitator/Speaker
1	13:30-15:15 (45 mins)	<ul style="list-style-type: none"> Group sessions (drafting session) <ul style="list-style-type: none"> <i>Developing the initial outline of a National Maintenance and Operations Plan.</i> 	Group moderators: R. Merrouchi (WMO), K. Premec (WMO) B. El Johra (Morocco) S. Linnerts (S. Africa) M-J Bopape (S. Africa)
2	15:15-15:40 (25 mins)	<ul style="list-style-type: none"> Group presentations 	Rapporteurs
3	15:40-15:55 (15 mins)	Wrap up and closing remarks	K. Premec (WMO) / SAWS representative
	15:55-16:15 (20 mins)	Coffee Break	