



SECOND WMO WORKSHOP ON OPERATIONAL CLIMATE PREDICTION

30 May - 1 June 2018, Barcelona, Spain

PROVISIONAL AGENDA

Day 1, 30 May (Wednesday)		
08:30-09:00	Registration of participants	
09:00-10:30	Session 1: Setting the scene Chair: F.Doblas-Reyes Rapporteur ¹ : L.Aldeco	
09:00-09:40	1.1 Opening sesión Welcome addresses Logistical information for the Workshop Tour de table presentations of all participants	Francisco Doblas Reyes (BSC) Ernesto Rodríguez (AEMET) Manola Brunet (CCI) Arun Kumar (CBS) Rupa Kumar Kolli (WMO) G.Tarabanoff (BSC) All participants
09:40-09:55	1.2 Workshop concept and expected outcomes	A. Kumar (NOAA)
09:55-10:15	1.3 Current status and future perspectives of operational prediction from subseasonal to longer time scales	R.Graham (UKMO)
10:15-10:30	1.4 Ensuring climate data quality and homogeneity for operational climate prediction	M.Brunet (CCI)
10:30-11:00	Health break & Group photo	
11:00-13:00	Session 2: Technical aspects and current practices of operational climate prediction across different time and spatial scales Chair: R.Graham Rapporteur: A.Hovsepyan	
11:00-11:15	2.1 Sub-seasonal forecasts	A.Robertson (IRI)
11:15-11:30	2.2 Seasonal forecasts	A.Kumar (NOAA)
11:30-11:50	2.3 Decadal prediction, including Global Annual to Decadal Updates (GA2DU)	D.Smith (UKMO)

¹ To facilitate preparation of the workshop report Rapporteur of each of the sessions is expected to draft a brief summary of all presentations at the session, and capture main points of discussions, questions/answers (if any)

11:50-12:10	2.4 Verification of seasonal forecasts	C.Coelho (CPTEC)
12:10-12:30	2.5 Global Seasonal Climate Update (GSCU)	A.Brookshaw (ECMWF/C3S)
12:30-12:45	2.6 Operational climate prediction in RCC Pune: good practices on downscaling global products	D.S.Pai (IMD/RCC Pune)
12:45-13:00	2.7 Tokyo Climate Centre activities in support of OCP in the Asia-Pacific region	A.Minami (JMA/TCC)
13:00-14:00	Lunch break	
14:00-15:30	Session 2: Technical aspects and current practices of operational climate prediction across different time scales (contd) Chair: C.Coelho Rapporteur: Z.Gong	
14:00-14:15	2.8 LC LRFMME operation, access to products	K.H. Cho (KMA)
14:15-14:30	2.9 Copernicus Climate Change Service (C3S)	A.Brookshaw (ECMWF/C3S)
14:30-14:45	2.10 North American Multi-Model Ensemble	W.Thiaw (NOAA)
14:45-15:00	2.11 APEC Climate Center Multi-Model Ensemble (MME) prediction	Ji-Hyun Oh (APCC)
15:00-15:30	Open discussion on the current status of operational practices, challenges, gaps and needs	Moderated by Chair
15:30-16:00	Health break	
16:00-17:00	Session 3: Research-Operations Linkages: good practices and achievements Chair: M.Rixen Rapporteur: R.Rahmat	
16:00-16:15	3.1 Activities of the World Climate Research Programme Working Group on Seasonal to Inter-decadal Prediction (WGSIP)	W.Merryfield (WGSIP)
16:15-16:30	3.2 S2S project - examples of application of sub-seasonal products	Y.Takaya (MRI Japan)
16:30-16:45	3.3 IPET-OPSLs perspectives on research needs	A.Kumar (NOAA)
16:45-17:30	Discussion on potential mechanisms for accelerating R2O and O2R value cycle, building on existing platforms at regional scale	F. Doblás-Reyes/M.Rixen

Day 2, 31 May (Thursday)		
09:00-10:30	Session 4: Global and regional aspects: understanding sources of predictability Chair: A.Kumar Rapporteur: E.Rodriguez	
09:00-09:15	4.1 Predictability limits at different time scales	F.Doblas Reyes (BSC)
09:15-09:30	4.2 Sources of predictability at sub/seasonal scale	A.Robertson (IRI)
09:30-09:45	4.3 Sources of predictability at seasonal scale	D.Jones (BoM)

09:45-10:00	4.4 Sources of predictability at decadal scale	J. Knight (UKMO)
10:00-10:15	4.5 Teleconnections	L.Ferranti (ECMWF)
10:15-10:30	4.6 Asian Monsoons	A.S.Rao (Monsoon Mission, IITM)
10:30-11:00	Health break	
11:00-12:00	Session 4: Global and regional aspects: understanding sources of predictability (contd) Chair: A.Brookshaw Rapporteur: E.Rodriguez	
10:30-10:45	4.7 Predictability over the Arctic Region	B. Denis (ECCC)
10:45-11:00	4.8 Impact of soil dust aerosols upon weather and climate	C. Pérez García-Pando (BSC)
11:00-11:30	Discussion on gaps and requirements for more research and understanding on sources of predictability at regional scale	Moderated by Chair
12:00-13:00	Session 5: Major projects outcomes Chair: A.Robertson Rapporteur: A. Muñoz	
12:00-12:15	5.1 SPECS and EUCP	F.Doblas Reyes (BSC)
12:15-12:30	5.2 EUPORIAS	E. Rodriguez (AEMET)
12:30-12:45	5.3 WISER	R.Graham (UKMO)
12:45-13:00	5.4 Opportunities for OCP in WMO projects	J.Camacho (WMO)
13:00-14:00	Lunch break	
14:00-16:00	Session 6: Break-out Groups Discussions Participants in three break out groups will discuss gaps and needs and propose key actions and recommendations on the ways to advance further operational predictions and delivery mechanisms, as well as way forward on developing the Guidance on Operational Practices (built on existing draft document) along with timelines, and action plan, for all three time scales.	
	1. Sub-seasonal Forecasting	A.Robertson(M)/R.Rahmat(R)
	2. Seasonal Forecasting	A.Kumar(M)/V.Khan(R)
	3. Decadal prediction	D.Smith(M)/C.VanMeerbeek(R)
16:00-16:30	Health break	
16:30-17:00	Reporting from the breakout discussions, break out groups on:	
16:30-16:40	1. Sub-seasonal Forecasting	A.Robertson (IRI)
16:40-16:50	2. Seasonal Forecasting	A.Kumar (NOAA)
16:50-17:00	3. Decadal prediction	D.Smith (UKMO)
17:00-17:30	Wrap up discussions, Q&A	A.Brookshaw (Moderator)

Day 3, 1 June (Friday)		
09:00-10:30	Session 7: Good practices at global, regional and national scales Chair: L.Ferranti Rapporteur: D.S.Pai	
09:00-09:15	7.1 Global RCOF Review recommendations on operational practices ²	R.Martinez (CIIFEN)
09:15-09:30	7.2 Towards objective seasonal forecasting ³	R.Kolli (WMO)
09:30-09:45	7.3 ASEANCOF: Developing regional climate change projections	R.Rahmat (MSS, Singapore)
09:45-10:00	7.4 GHACOF practices	M. Gudosava (ICPAC)
10:00-10:15	7.5 Operational practices in South African Weather Service (SAWS)	A. Adeola (SAWS)
10:15-10:30	7.6 National level products generation including calibration aspects	C.Van Meerbeek (CIMH)
10:30-11:00	Health break	
11:00-13:00	Session 8: Delivery and communication of operational climate prediction products Chair: R.Martinez Rapporteur: C.Van Meerbeek	
11:00-11:15	8.1 Data access, availability at Global Producing Centres for Long-Range Forecasts and Annual to Decadal Climate Prediction	A.Harou (WMO)
11:15-11:30	8.2 Requirements on tailored seasonal forecasts under WMO-led projects	J.Camacho (WMO)
11:30-11:45	8.3 Communication of climate prediction products, including uncertainties	A. Muñoz (IRI)
11:45-12:00	8.4 The role of co-production: toward usable climate services	S.Dessai (U/Leeds)
12:00-12:15	8.5 Good practices for user engagement and communication of operational services	M. Terrado (BSC)
12:15-13:00	Open discussion on lessons learned from good practices on OCP and delivery and communication of OCP products	Moderated by Chair
13:00-14:00	Lunch break	
14:00-15:00	Session 9: Capacity development Chair: R.Graham Rapporteur: V.Khan	
14:00-14:15	9.1 Capacity development (CD) aspects: addressing the needs to build competences	W.Thiaw (NOAA)
14:15-14:30	9.2 Update on CSIS implementation, including Climate Services Toolkit	R. Kolli (WMO)

² Workshop report along with all the relevant material is available at:

http://www.wmo.int/pages/prog/wcp/wcasp/meetings/workshop_rcofs.php

³ A draft document on "Development of Objective Regional Seasonal Forecasts in Africa, Asia-Pacific and South America", which is still evolving, is available at: <http://www.wmo.int/pages/prog/wcp/wcasp/linkedfiles/Draft-Discussion-Paper-Objective-Regional-Seasonal-Forecasts.docx>

14:30-14:45	9.3 Machine Learning algorithms in Meteorology and Climatology Applications	S. Salcedo-Sanz (University of Alcalá, Spain)
14:45-15:00	Discussion on the ways to effectively address CD needs	Moderated by Chair
15:00-15:30	Health break	
15:30-17:00	Session 10: Conclusions and recommendations on way forward Chair: F.Doblas-Reyes Rapporteur: A.Hovsepyan	
	<p>10.1 Panel discussions on:</p> <p>Way forward on development of a Guidance on Operational Practices: provisional plan [A.Kumar]</p> <p>Advancing operational climate prediction and delivery mechanisms (based on outcomes from breakout groups)</p> <p>An outline of a Position Paper on Operational Climate Prediction [F.Doblas Reyes]</p> <p>10.2 Input to the WWRP/WCRP Conferences on Sub-seasonal to Decadal Prediction (17-21 September 2018, Boulder, USA) [M.Rixen]</p> <p>Closing remarks by the Host, WMO</p>	Moderated by Chair

19:00 Visit to the *MareNostrum 4 Supercomputer* at BSC (confirm to Gabriela Tarabanoff gabriela.tarabanoff@bsc.es)