

Burkina Faso: Strengthening National Capacities for Early Warning System Service Delivery



Status: ● Ongoing

National Projects

The World Bank - GFDRR - WMO

Areas of implementation: Burkina Faso

Funding: \$ 2,192,200.00

In Burkina Faso, CREWS aims to improve hydrometeorological services for early warning for flood-related risks and risk information for agriculture, food security and anticipation of severe weather impacts. It will serve as a pilot project for the construction of a monthly to seasonal operational system

Meteo-France is involved in

Component 1: Basic systems. 1d: Subseasonal to seasonal forecast

- Definition of the production for subseasonal to seasonal forecast
- Development of the chains of production
- Score computation and evaluation of hindcast mode
- Implementation and dissemination of all products
- Training and experimentation
- Final reporting and recommendations

Strategy :

- Take advantage of what has been learned from AMMA project
- Extend the concepts developed for operational purpose at the synoptic scale to the larger scale : monthly up to the seasonal forecast

→ the strategy is more regional than local.
It can be used for different countries in the Sahelian band

Key deliverables

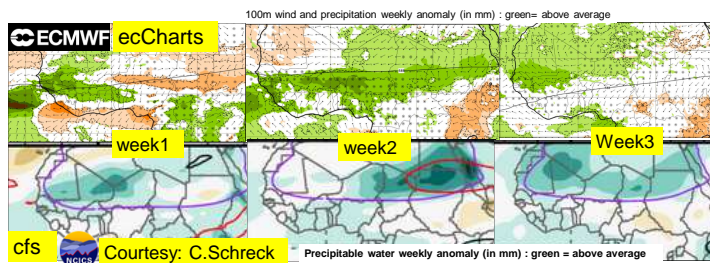
- Assessment of observation network processes and needs
- Data base improvements
- Short term forecast capabilities
- **Sub-seasonal to seasonal forecast**
- Analysis, nowcasting and climate watch tools
- Risk information and forecast products for flood Early Warning
- Risk information and forecast products for agriculture and food security
- Institutional strengthening
- Monitoring and Evaluation

Training workshop – June 2018 – Ouagadougou



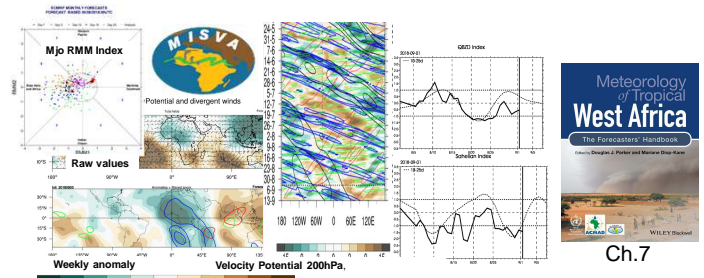
First training workshop meeting of the project
⇒ confront the needs with current knowledge

Develop an operational methodology (1)



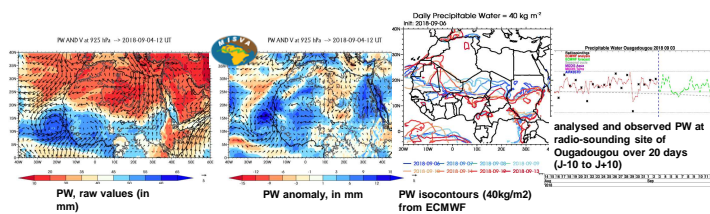
Try to follow a multi-ensemble approach for confidence assessment

Develop an operational methodology (2)



Monitoring the MJO, Equatorial waves, regional modes of variability (QBZD, Sahelian) using RMM indices and wave filtering methods

Develop an operational methodology (3)



D.E.Poan thesis, 2013: *Documentation and physical interpretation of the African monsoon intra-seasonal variability for improved weather forecasts*

Precipitable water is key to track intraseasonal variability

Build a human expertise

A synthetic table summarizes the ingredients, numerical prediction and human expertise of weekly precipitation anomaly

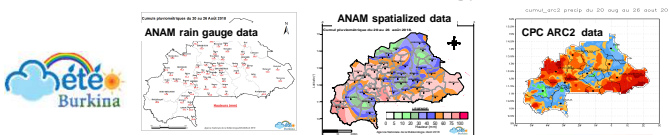
	Ingredients	Physical variables	Physical variables	Physical variables	Physical variables	Physical variables	Physical variables	Physical variables
	VP200	PW	Dynamical AEW	CEP	GEFS	Services	Area /	Area /
	du 28/08						regional	regional
S1	++	+	++	++	++	++	++	++
S2	++	+	++	++	++	++	++	++
S3	++	+	++	++	++	++	++	++
S4	++	+	++	++	++	++	++	++

Prévision mensuelle pour le Burkina Faso

Launch a procedure of immediate subjective verification

Verification des prévisions passées pour le Burkina Faso

Need for robust climatology



Stronger spatial variability in rain gauge network data than in satellite-based estimates

Key points

- CREWS-Burkina Faso has started this year with weekly briefing and a workshop held in Ouagadougou
- Meteo France and the ANAM collaborate for the improvement / development of monthly and seasonal forecast over Burkina Faso with products that will benefit the entire Sahelian region