WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

Digital Advisory Services for Agriculture: Perspectives from WMO

WMO OMM

World Meteorological Organization
Organisation météorologique mondiale

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World Meteorological Organization

- United Nations agency for weather, climate, hydrology and water resources and related environmental issues.

- 193 Members from National Meteorological and Hydrological Services (NMHS) – Newest Member Nauru (May 2019)

- 10 major scientific & technical programmes (Secretariat)
- 2 Technical Commissions advise & guide activities of programmes (Experts)
- 6 Regional Associations involved in implementation

WMO Technical Areas

- Aeronautical Meteorology
- Agricultural Meteorology
- Atmospheric Research
- Basic Systems / Infrastructure / Measurements
- Climatology
- Hydrology
- Oceanography and Marine Meteorology
- Energy and Health Applications

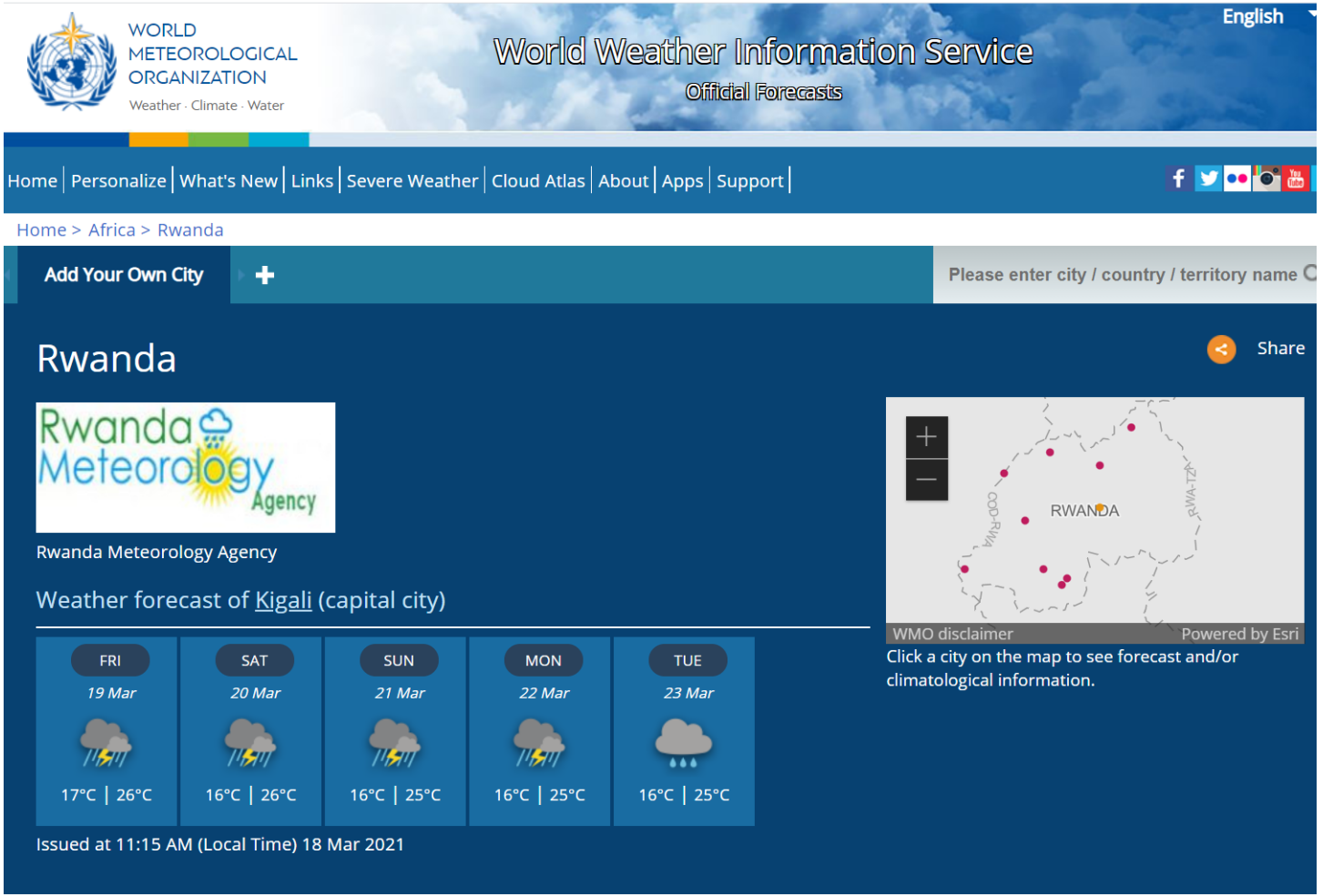
WMO Digital Advisory Services for Agriculture

Draft Guiding principles

- **Secure data and information flow**
- **Leverage digital technological innovations**
- **Need bottom-up approach involving target communities**
- **Ensure equitable access to digital services for women and youth**
- **Build on WMO projects and activities (previous and current)**

Draft Concept – Data and Information I

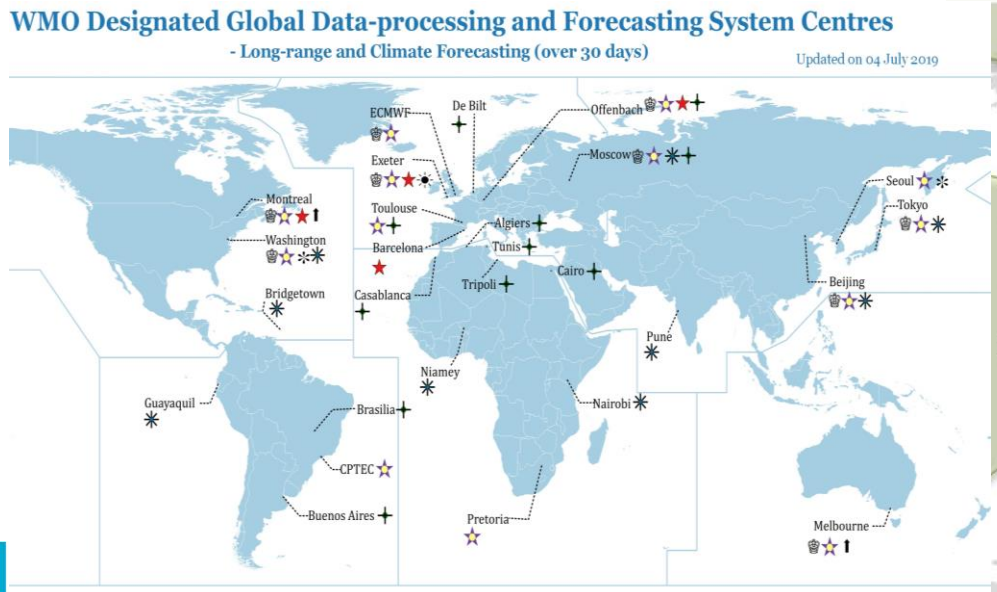
- Using the existing WMO World Weather Information Service (WWIS - https://worldweather.wmo.int) for basic weather and climate information. This can be used global and was tested (used) in FAO-WMO project in Senegal and Rwanda. The data in the WWIS server can be accessed globally.



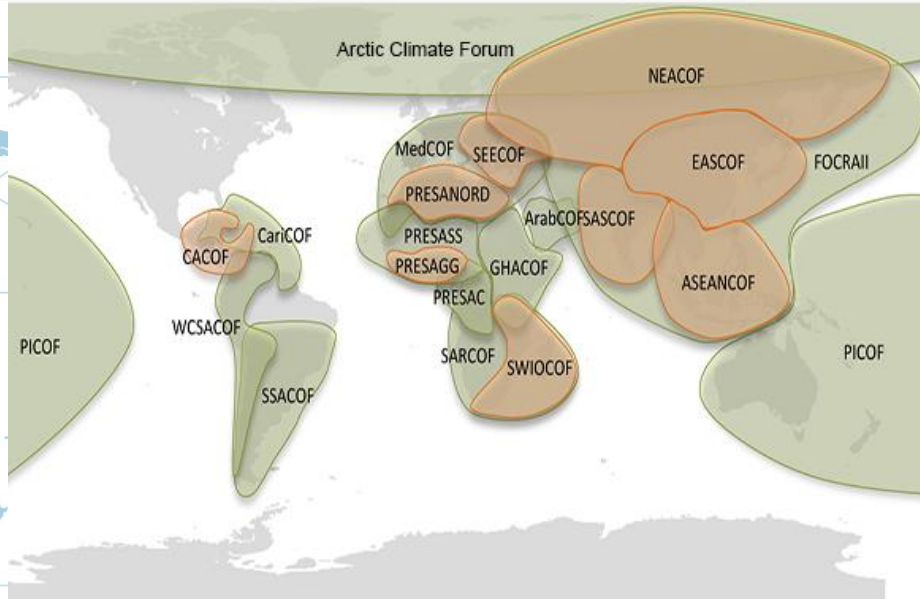
Draft Concept – Data and Information II

- WMO has a network of Global and Regional Centers that provide seasonal forecasts (1 to 3 months)

These are Certified by WMO and are mostly National Weather Services. Examples products from these Centers are on the following slide.



WMO Certified Regional Climate Outlook Forums Provision of monthly and seasonal climate forecasts



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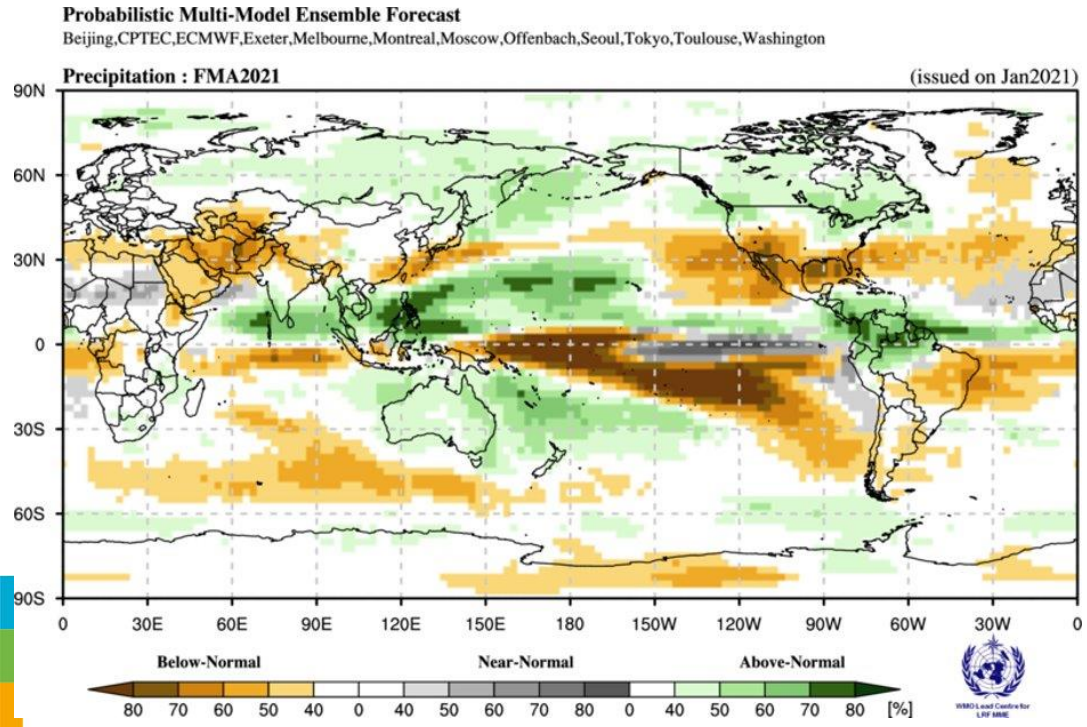
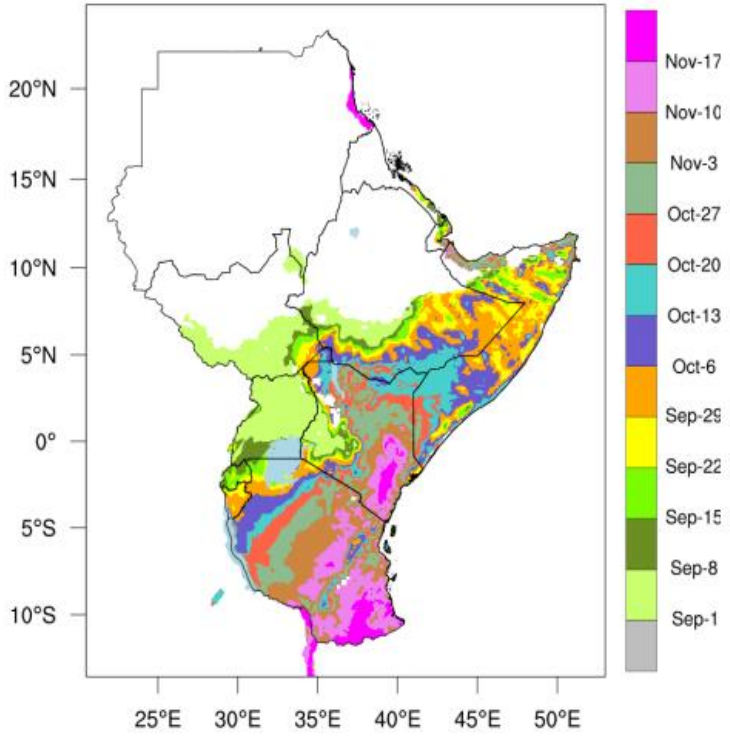
Draft Concept – Data and Information II

- Examples of global and regional climate products

Three month Seasonal Climate Forecasts for rainfall averaged across 12 WMO centers for Feb, Mar and Apr 2021



Forecast Onset of Rainy Season (Oct 2019) based on sub-seasonal forecast information



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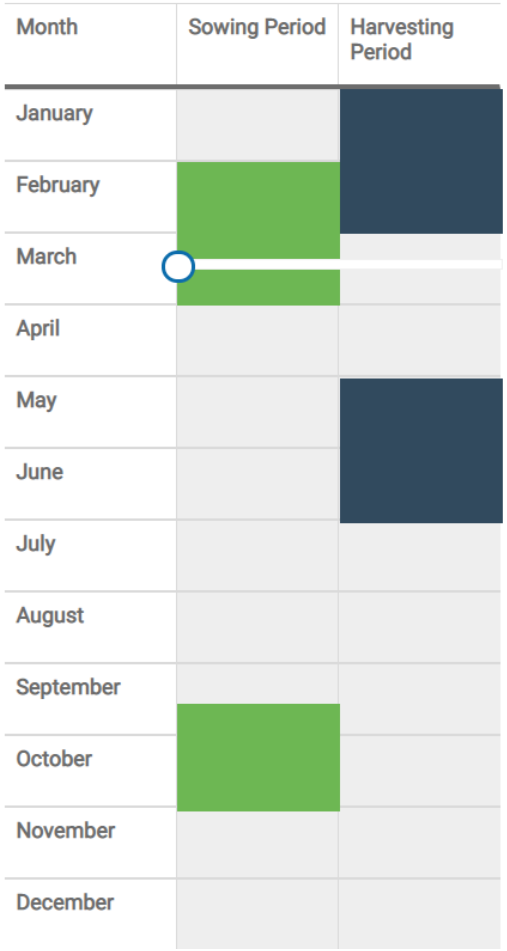
Draft Concept – Information Communciation Technologies

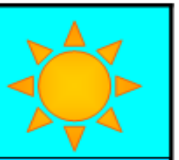
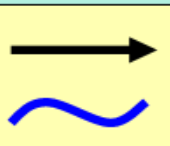
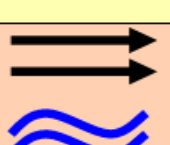
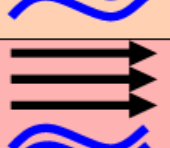
- Link data and forecast to mobile phones applications. Examples from WMO Lake Victoria and WMO-FAO projects.

WMO-World Bank Lake Victoria Project (Uganda)

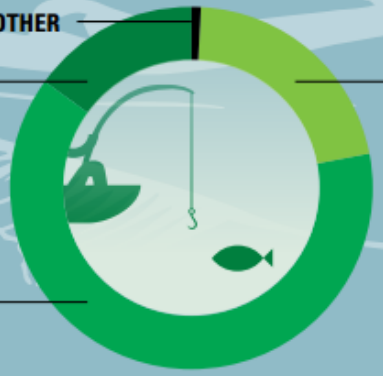
KYENVU Kulabula
Atusa Uganda Met Kalangala
02:19 AM 17:02:12
Ekisera: 6am – 6pm
Okulabula: BEERA NGOMANYI
Omuyaga: GW'AMAANYI ENNYO
Embera y?obudde
ENKUBA N'OKUBWATUKA
KW'EGULU WANO
N'AWALI
Wokoma kulaba: WAKIGERO

Crop calendar – Dry beans in Rwanda (FAO)

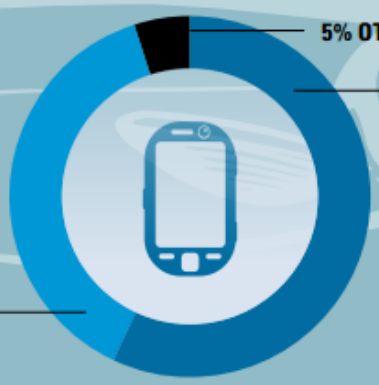


Green alert	**No alert:** No hazardous weather expected. Take normal precautions.		
Yellow alert	**Be aware:** There might be changes in the weather. Be watchful and look out for signs of storm such as clouds, wind gusts, higher waves.		
Orange alert	**Be prepared:** The weather is likely to change. Consider moving to safer areas and be prepared to take necessary actions.		
Red alert	**Take action:** The weather will change soon. Take the necessary actions to get to a safe area.		

FISHERMEN TRUSTING WEATHER INFORMATION



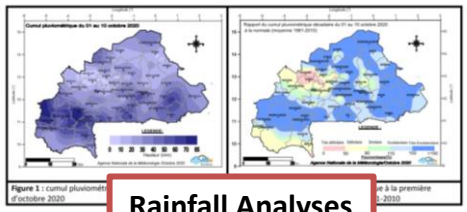
USEFULNESS OF WEATHER FORECASTS



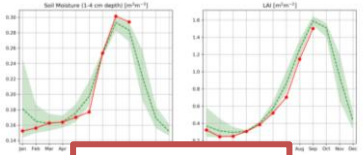
Draft Concept – Information Communciation Technologies II

- Many WMO members have agrometeological bulletins. Proposal to make XML compatiable content from existing products for use in mobile applications

Products from Agromet Bulletins (PDF)



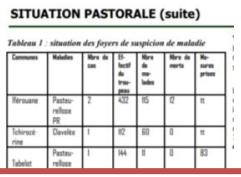
Rainfall Analyses



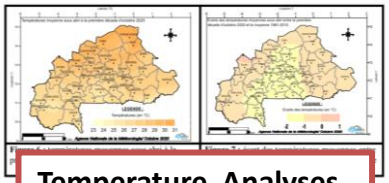
Soil Moisture

Situation des culture
s Situation phénologique Le mil est à dominance épiaison (27%) au plan national, Quant à la maturité, elle a atteint un taux de 9% et ce stade est observé dans les régions de Dosso, Maradi, Tahoua, Tillabéri et Zinder. Le

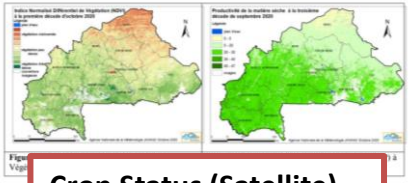
Crop Situation / Status / Stage



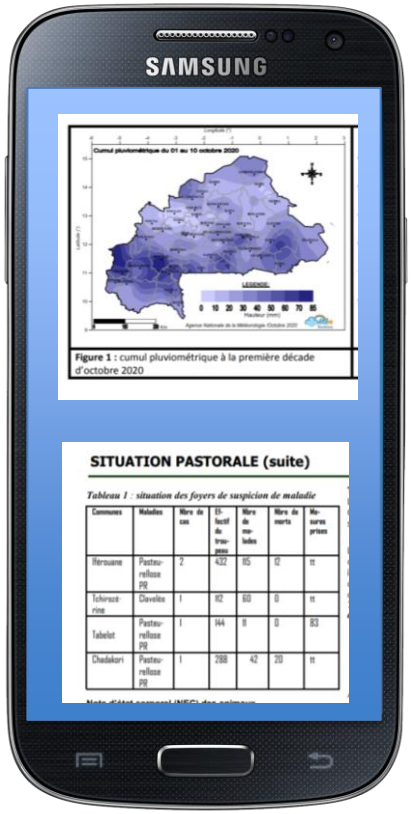
Pastoral / Livestock Status



Temperature Analyses



Crop Status (Satellite)



Products can be grouped by region, country or products

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Thank you

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