

# State of the art of seasonal forecast in Madagascar National Meteorological Service

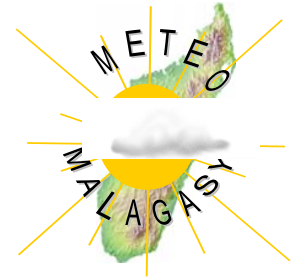
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Chef du Service des Recherches Hydrométéorologiques

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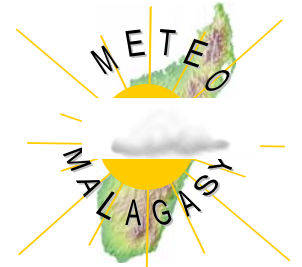
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# OUTLINE



- Introduction
- Progress in the National Framework for Climate Services (NFCS)
- Madagascar seasonal forecasting history
- Products developed at/within seasonal timescale
- Forecasts product recipients
- Means of products dissemination
- Problems & challenges
- Expectations from this forum

# Introduction



- Meteo Madagascar is concerned about providing climate product in terms of impact due to the challenge in decision making even when information is available
- Madagascar is now in the process of implementing the WMO's [Global Framework on Climate Services](#) or [GFCS](#) at [National level](#)
- NFCS is integrated in the strategic plan which mainly involves climate-related domain including agriculture, disaster risk management and health

# Progress in the National Framework for Climate Services (NFCS)

“Obj: Enhance the risk management related to the climate variability and promote adaptation to the climate change”

2015-2016:

- Implementation structure of the framework established at national level
- Update of the strategic plan
- Draft of the action Plan
- Progress report addressing recommendations linked with climate disasters in different sectors
- Working group in the domain of agriculture, DRM and Health established

# Madagascar seasonal forecasting history

- 1991-1992: The southern region of Madagascar was experiencing persistent severe drought enhancing famine and enormous loss of life
- 1992: Research cooperation and training established with the University of Cap Town in South Africa
- 1997: Creation of the Research Service within Meteo Madagascar and dissemination of the first bulletin on seasonal forecasting based on research results and global centers numerical model outputs
- From 2005: Madagascar became member of SADC, strengthening its capacity on statistical (SYSTAT) and downscaled (CPT) seasonal forecasting during SARCOF
- 2010-2013: Exclusion of Madagascar from SADC due to political crisis
- From 2014: Application of new predictability tool GEOCOF promoted by SARCOF

# Products developed at/within seasonal timescale

## ➤ Seasonal and sub-seasonal forecasting:

- Parameters: Temperature, precipitation
- Method: Teleconnection
- Timescale: 3-month, 6-month (outlook validated by SARCOF)
  - Updated every month

# Products developed at/within seasonal timescale

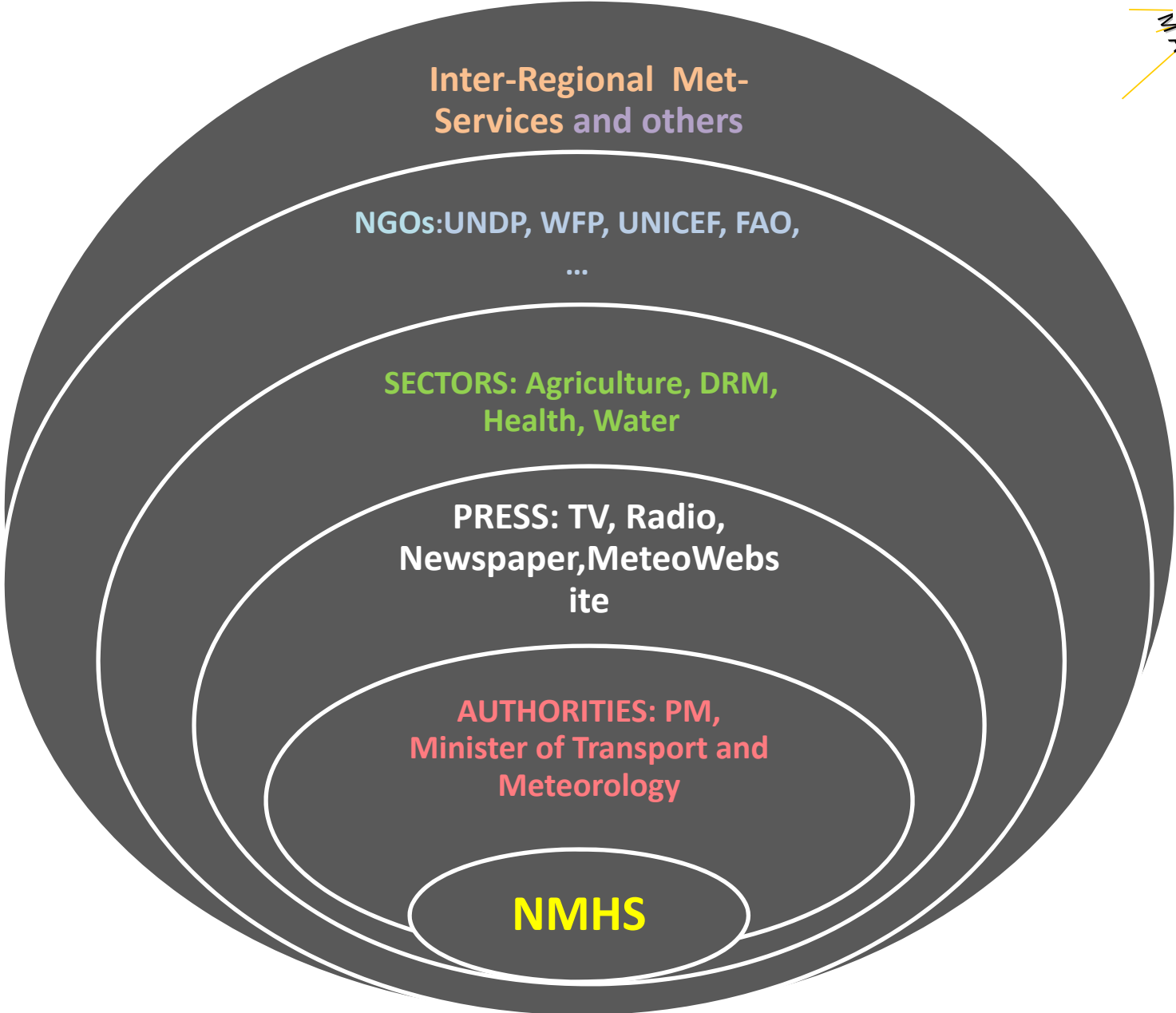
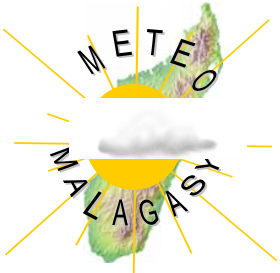
## ➤ Seasonal forecasting of the cyclonic activity:

- Predictands: NTC, PTAC, CTAC, CTIAC, JPT, JCT, JCTI
- Method: teleconnection
- Timescale: 6 months
  - updated during the summer season (November-April)

## ➤ Intra-seasonal forecasting:

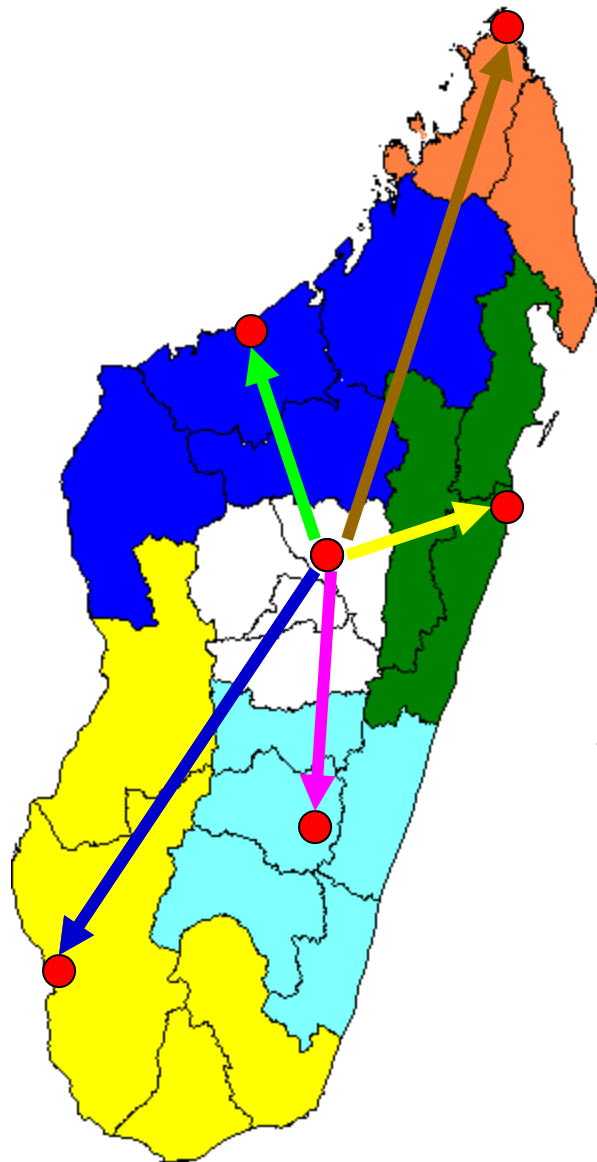
- Parameter: precipitation
- Predictors: MJO indexes, U200
- Timescale: every 15 days during the summer season (November-April)

# Forecasts product recipients





# Forecasts product recipients



● INTER-REGIONAL  
MET-  
SERVICES



- LOCAL AUTHORITIES  
**(Regions, Districts...)**

- LOCAL RADIO, TV  
(National/Private)

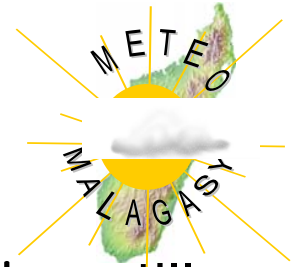
- Other users

# Means of products dissemination

- To the authority : e-mail, hard copy
- To the public : Radio, TV (National/Private), news paper, meteo website
- To the users from various economic sectors : e-mail, personal contact

Note: The bulletin for the public is in local language **MALAGASY** and in French

# Problems & challenges



- People living in the remote area/without electrification still has difficulty to access and use the climate information
- There's a need to sensitize the importance of climate information in the decision making
- Quality and reliability of climate data collection, data management and climate products
- The lack of added value to the national economy from the climate information

# Expectations from this forum

- Available knowledge and understanding of regional climate variability reviewed;
- Enhanced core scientific and technical capabilities for RCOF in the region ;
- Easy access to the essential inputs on large-scale and regional-scale drivers and jointly interpreting their potential influences on the climate over the South-West Indian Ocean sub-region;
- Improved seasonal forecast over the sub-region and promoting the usefulness of consensus-based seasonal forecasts in decision making processes within climate-sensitive socio-economic sectors.

Thank you for listening!

