WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

Current status of operations of SWIOCOF

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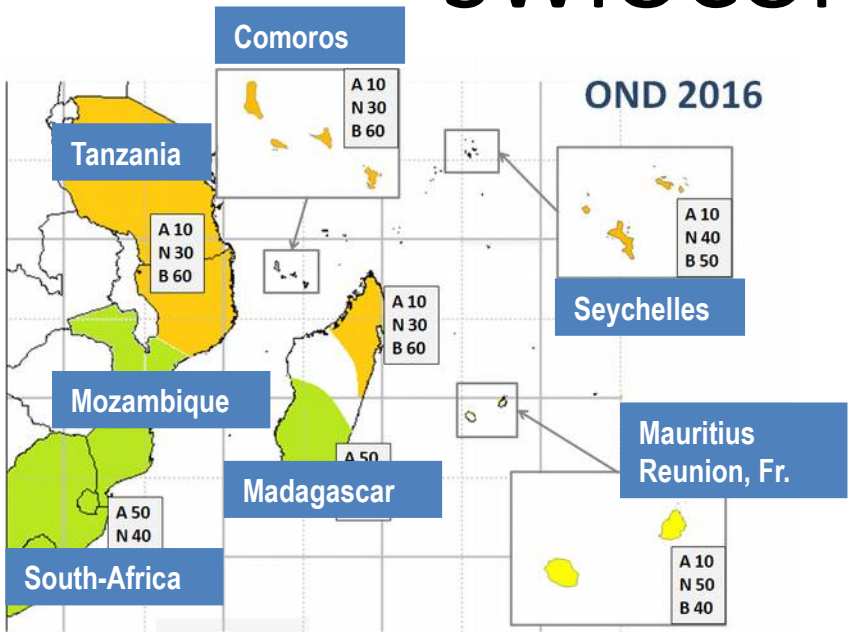
WMO OMM

World Meteorological Organization
Organisation météorologique mondiale

WMO International Workshop on Global Review of Regional Climate Outlook Forums, Ecuador, 5 – 7 September 2017

SWIOCOF background



IOC members (5 island countries + 3 African coastal countrie)

Held once a year in **september**

Target season :

- **oct-jan** for rainfall : end of dry season and onset of rainy season,
- Cyclonic activity **Nov-Apr**
- Major forcings **:** ENSO, IOD, SIOD

- First session in sept. 2012 (Saint-Denis La Réunion) in the framework of ACCLIMATE project (IOC)
- ACMAD coordinated 2013-2015 sessions
- Regional Consultation on Climate Services in the Indian Ocean (march 2016 – Mauritius) stressed the need to strengthen the process
- Météo-France (La Réunion) and ACMAD for technical coordination for 2016 and 2017 sessions
- Indian Ocean Comission brings logistical support
- No sustainable funding (WMO for SWIOCOF in 2016 and 2017)
- Possible applications within most climate sensitive sectors : water, agriculture, health, fishing industry, tourism…much to be done!

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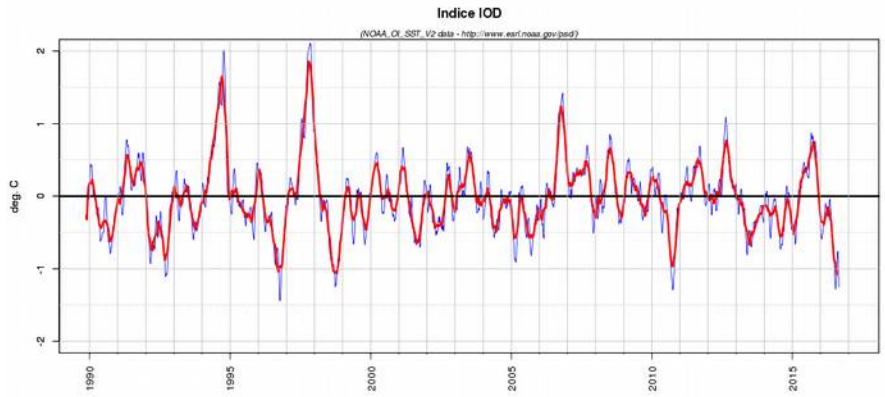
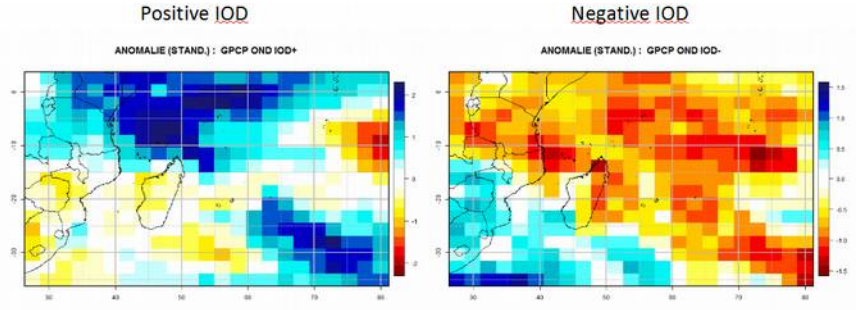
The SWIOCOF process (1/3)

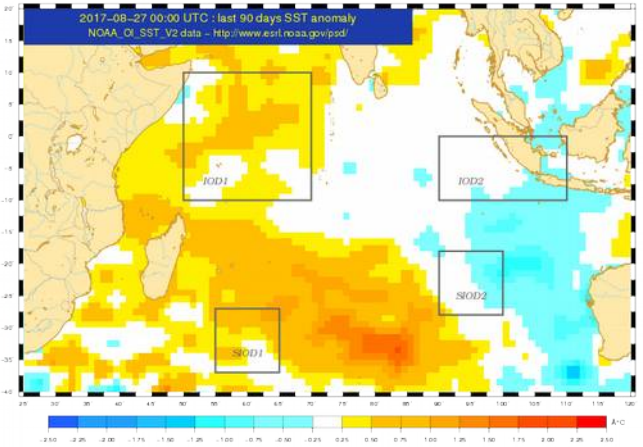
1. Analysis of climate variability, key climate features modulating regional climate, reminders on climatology





2. Verification of previous forecast
3. Assessment of past and current global and regional climate conditions, search for analog years : ENSO, Indian Ocean SST patterns, rainfall balance (drought)

Information source : IOSST (NOAA), OOPC, ERA-Interim (ECMWF), IRI maproom, BOM (ENSO Wrap up), local information (data provided by NMHS's participants during the pre-COF session)



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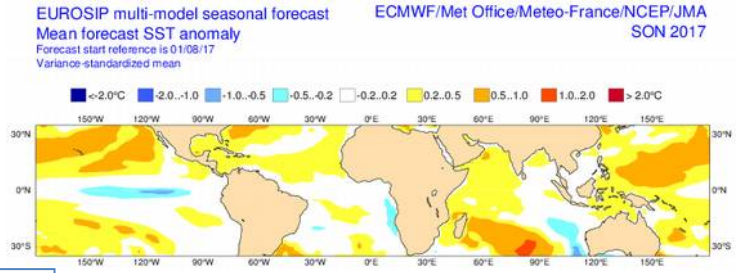
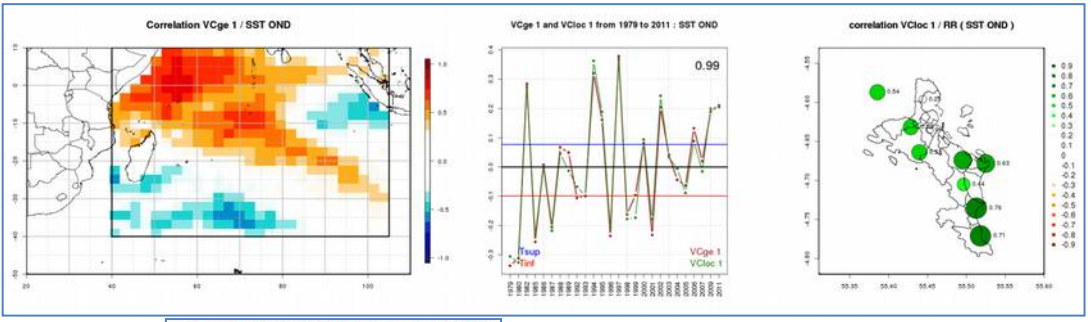
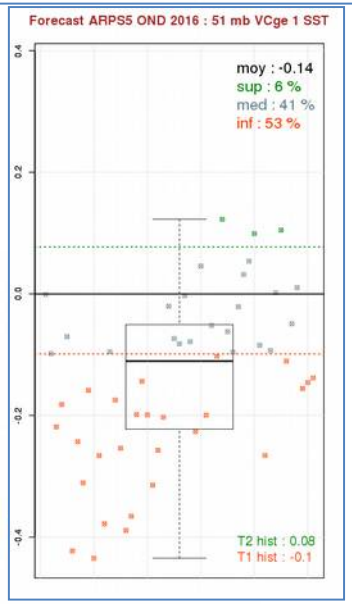
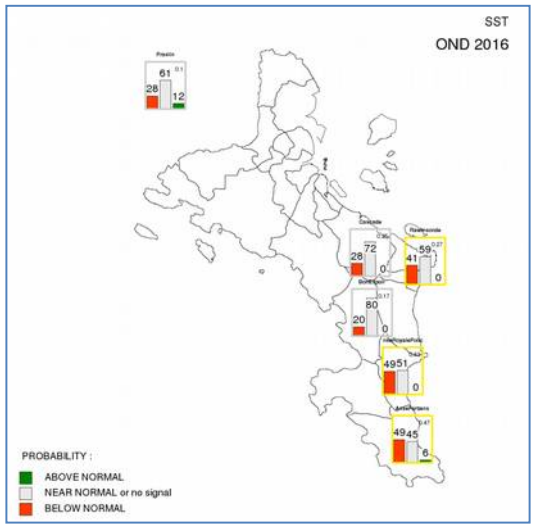
The SWIOCOF process (2/3)

4. Input from GPCLRFs : global scale seasonal outlook
   - EUROSIP multi-model system
   - Contributions from IMD and Environnement Canada in 2016
5. Regional input from ACMAD RCC and Météo-France La Réunion







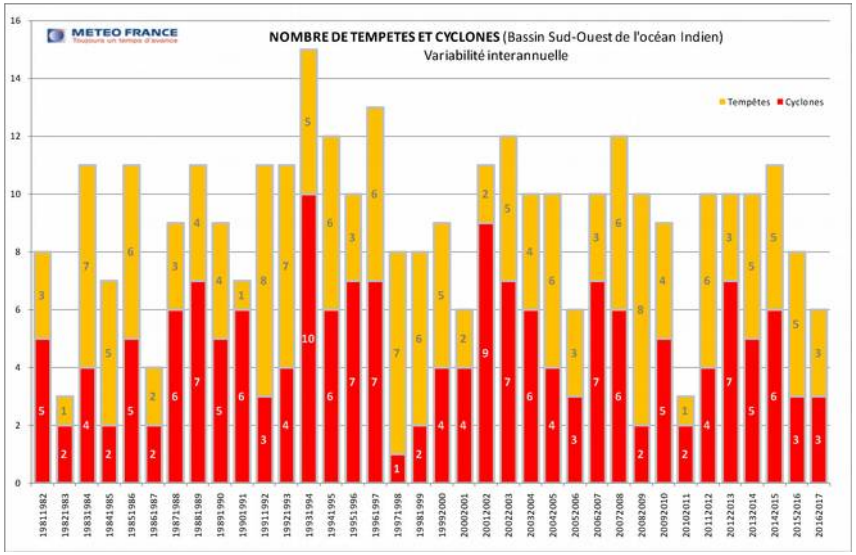


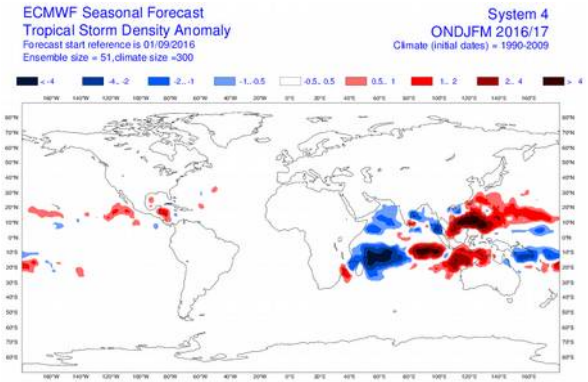
6. Downscaling of global/regional data

Statistical Tool developped in Météo-France Reunion in R (originaly inspired by CPT tool from IRI) with some adaptation mainly to maximize the use of Ensemble Prediction Systems like MF and ECMWF models and issue related probabilistic information. Method relies on canonical analysis approach.

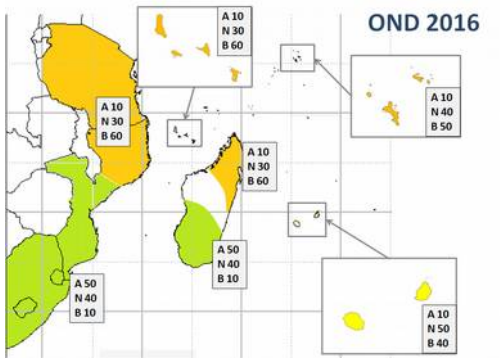
The SWIOCOF process (3/3)

7. Session dedicated to cyclonic activity outlook
   - Number of systems
   - Dominant track patterns
   - Preferred cyclogenesis location





8. End users products : consensus assessment

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STATEMENT OF THE FIFTH SESSION OF THE SOUTH-WEST INDIAN OCEAN CLIMATE OUTLOOK FORUM (SWIOCOF-5)

SEYCHELLES, 19-23 SEPTEMBER 2016

SUMMARY

From October to January :
- Below average rainfall is likely in the northern part of the region including Comoros, Seychelles and the northern part s of Mozambique and Madagascar.
- Near to above average rainfall is likely over the southern part of the region including southern Mozambique, southern Madagascar and South-Africa.
- Near to below average rainfall is likely over the islands of Mauritius and Reunion.

The dry signal on the northern part of the SWIO region is expected to weaken during the second half of the targeted period.
Near to below average cyclone activity is expected during the coming cyclonic season.

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Capacity Development activities

Capacity development is limited to one pre-COF session a year. Included training activities are

- basic understanding of global and regional climate variability
- Facilitating access to the essential inputs on large scale and regional scale drivers and jointly interpreting their potential influences
- Downscaling large scale data to derive local scale information

Main themes : rainfall outlook, drought, rainy season onset, cyclone activity

Lack of continuity in NMHSs representative, experts are different every year and frequently have very poor experience in seasonal forecast.

User Involvement

Identified regional users : PIROI (regional Red Cross Platform), IOC (Indian Ocean Commission). Users attending the forum are mainly national

Since SWIOCOF process is quite young, there is no sector focused session. Presently, the forum consists in :

- Communicating the seasonal consensus outlook
- Facilitate exanges between providers of climate products and users from climate-sensitive sectors
- Strengthen the understanding of user expectations, raise sectoral needs and capacity gaps
- Promote the usefulness of consensus-based seasonal forecasts in decision making

No tailored forecasts at this point

SWOT analysis

- From a technical point of view, SWIOCOF benefits from Meteo-France's presence in the region (through its implementation in Reunion Island as a cyclone RSMC): provision of regional, global data sets, downscaling tools and expertise crucial for small islands issues and cyclonic activity purpose.

- SWIOCOF also benefits from ACMAD technical support. ACMAD's experience in RCOF processes in Africa is very valuable for the process.

- One main weakness is the poor density of observed data. Quality of the data is also an important issue for the region.

- Another important weakness comes from the absence of regional governance. Process not yet financially sustained.

Way Forward

- The next session (sept. 2017) will be an opportunity to strengthen capacities from different NMHSs, strengthen links with national or regional stakeholders in order to identify key services that could be implemented for the region within the next months and years.
- One main scientific issue would be to define a regional homogeneous data set of observed precipitation and temperature (ground observation or remote sensing information…). These data set could be shared through a regional web platform that could be enhanced with regional forecast data and regional climate monitoring products.
- Onset of rainy season and sub-seasonal information seem to be important issues for main stakeholders of most socio-economic sectors.
- Development of tailored products for users (water ressource?). Possible partnership with RIMES.

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Thank you
Merci

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