



Joint WCRP/WWRP WEBINAR SERIES

GLOBAL MONSOON

Wednesday, 13th Sept.
7:00-8:30 AM UTC
9:00-10:30 AM CEST

About Us

WCRP and WWRP have long led various research activities on both global and regional monsoons. The webinar series will be a platform to exchange knowledge, to discuss past and ongoing activities within the [CLIVAR/GEWEX Monsoons Panel](#), and to explore methods that the scientific community and other stakeholders can engage with.

Speakers

Prof. Bin Wang
Global Monsoon Response to External Forcing and Internal Feedbacks.

Dr. Annalisa Cherchi
Future of Monsoons in a Changing Climate - a Global Perspective

Chair

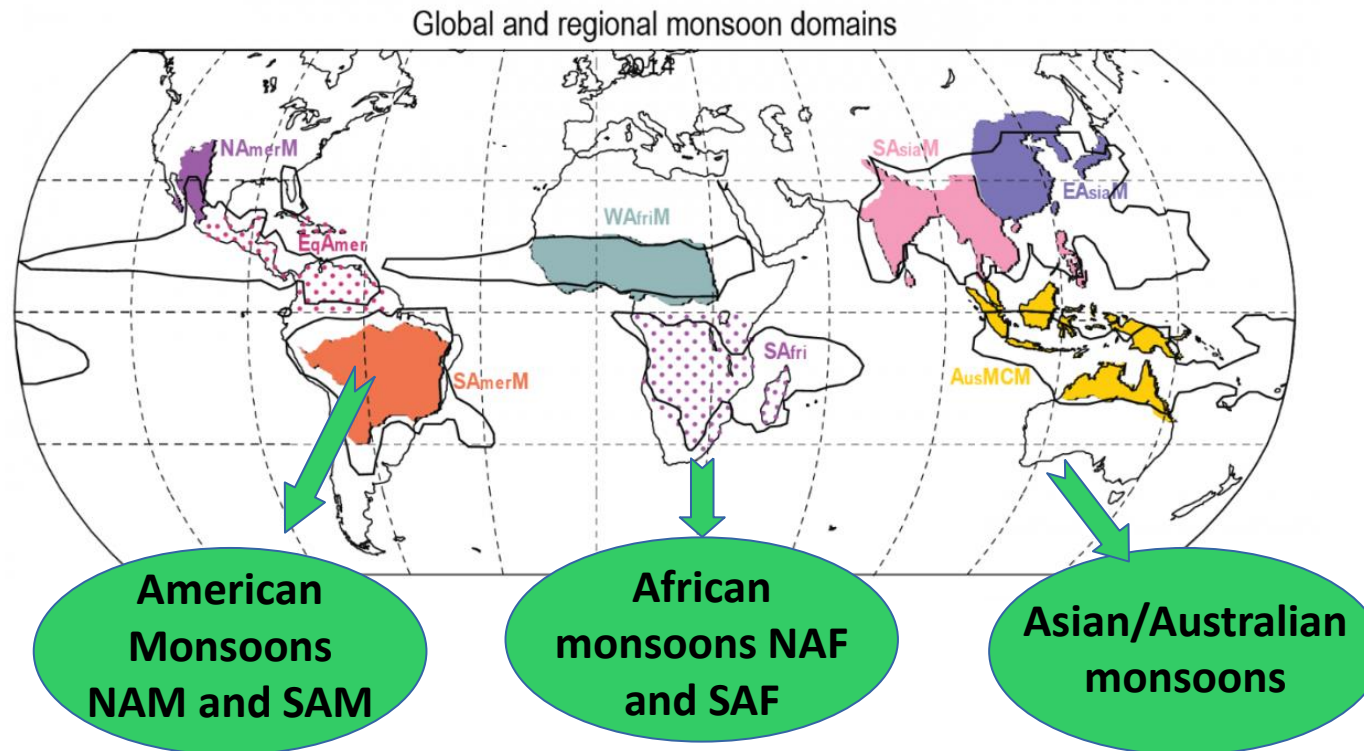
**Dr. Suryachandra
Rao Anguluri**

JOIN US!

Contact Person:
Wushan YING (wying@wmo.int)
More Information:
www.wcrp-climate.org/monsoons-webinars

CLIVAR/GEWEX Monsoons Panel

Co-Chairs: **Dr Leila Carvalho (USA)** & **Dr Suryachandra A. Rao (India)**



A joint panel spanning both CLIVAR & GEWEX with membership from both communities

Established in its current form after June 2014 GEWEX Conference

<http://www.clivar.org/clivar-panels/monsoons>

<https://impo.tropmet.res.in/wcrp-monsoon>

Panel's Goals

Overarching Goal: Advancing understanding of monsoon variability and improving its prediction with observations and modelling as cornerstones of research activities

- Enhanced emphasis on **linkages across scales** and **physical processes**
- Seek for **new methods** to enhance monitoring, advance diagnostics and improve models
- Development of more elaborated **process studies** coordinated with modelling activities
- Empowering the **next generation of scientists** around the world to advance our knowledge of monsoon systems, in particular in key regions of interest

Panel structure: Monsoon Panel (MP) & 3 regional Working Groups (WG)

- Regional WGs tasked with identifying priority areas for targeting advances
- Regional WGs relatively flexible to organize themselves under the guidance of MP

MP Co-chairs
 - Leila Carvalho
 - Suryachandra Rao A.

WG on Asian-Australian Monsoons (WG-AAM)
 17 members

WG-AAM Co-chairs
 - Gill Martin (MP)
 - Tieh Yong Koh

CLIVAR/GEWEX Monsoons Panel (MP)
 14 Members

WG on AMERICAN Monsoons (WG-AMM)
 15 Members

WG-AMM Co-chairs
 - Alice Grimm
 - Ruth Cerezo-Mota (MP)

WG on African Monsoons (WG-AFM)
 21 Members

WG-AFM Co-chairs
 - Rondrotiana Barimalala (MP)
 - Akintomide Akinsanola

Around 60 members are actively involved

Panel's Current Focus

Identify bottlenecks to achieve improved skills in representing all monsoons in dynamical models, from synoptic (weather) to large-scale (climatological scale), with great emphasis on extremes. These activities include:

- **Assess the skill of dynamical models in simulating rainfall in regional monsoons** and identify bottlenecks for further improvement.
- **Improve understanding of dynamical and physical processes** associated with **extreme events** in monsoon regions and identify deficiencies and gaps in capturing these extremes in present-day models.
- **Support Research to Operations (R2O)** activities to help the Regional Climate Outlook Forums (RCOFs) and operational meteorological services.
- **Communicate existing products and provide guidance** on their (adequate) application and limitations focusing on the operational and (relevant) impacts communities and participate in relevant training activities.
- **Build Capacity** through working groups by promoting **Early Career Scientist (ECS)** representation in the working groups and subgroups.



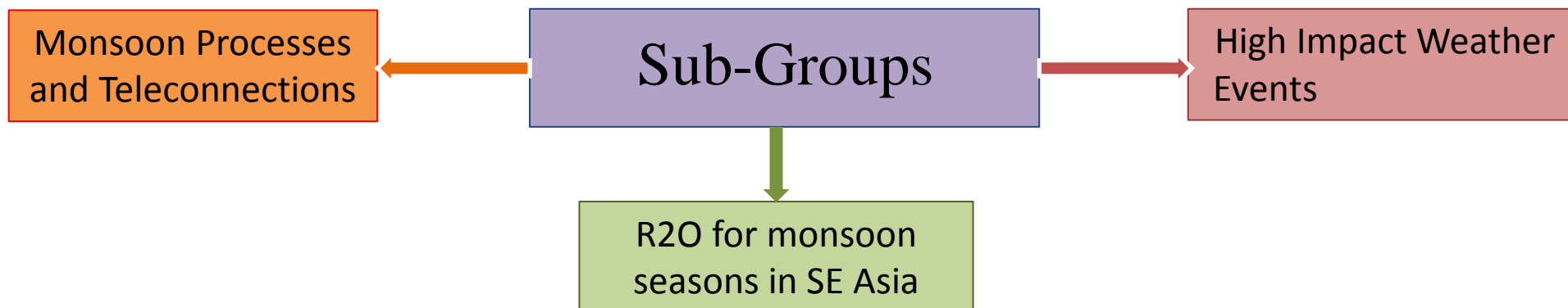
Monsoons Panel

Recent Activities of Monsoons Panel and its Regional WGs

WG on Asian-Australian Monsoons

Co-chairs

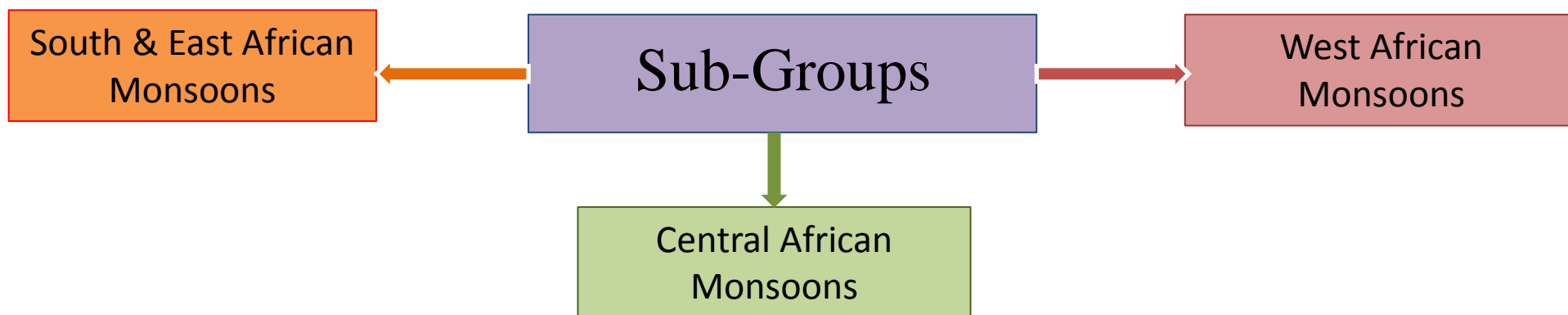
- Gill Martin (MP)
- Tieh Yong Koh



WG on African Monsoons

WG-AFM Co-chairs

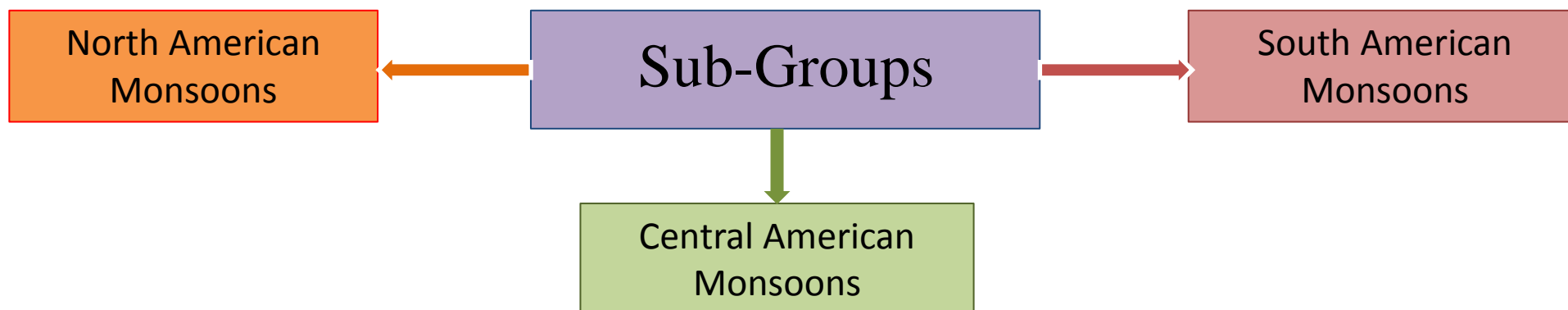
- Rondrotiana Barimalala (MP)
- Akintomide Akinsanola



WG on American Monsoons

WG-AMM Co-chairs

- Alice Grimm
- Ruth Cerezo-Mota (MP)

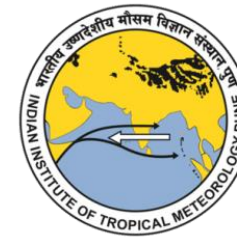


OSC-2023 Major Activities

- ❖ Two Poster Clusters (PC) proposed by members of WG-AFM & WG-AMM and WG-AAM have been accepted by **WCRP OSC-2023**. The poster clusters are:
 - PC07: Advances in monsoon science & prediction: Theory, observations, modelling & climate services - **Neil Hart, Akintomide Afolayan Akinsanola, Ross Dixon, Izidine Pinto & Rondrotiana Barimalala of WG-AFM and Drs. Moetasim Ashfaq, Ruth Cerezo-Mota & Tereza Cavazos of WG-AMM, as Convenors**
 - PC08: Extreme rainfall and temperatures over India: Forecasting challenge and role of ensemble prediction system - **Raghavendra Ashrit and Partha Mukhopadhyay of WG-AAM as Convenors.**
- ❖ **Benjamin Lamptey (WG-AFM), Tereza Cavazos (WG-AMM)** are **Members** of the **Scientific Organizing Committee** of WCRP OSC-2023.
- ❖ **Izidine Pinto (WG-AFM)** is a **Theme Lead** for “**Theme 2: Human Interactions with Climate**” and is also a **Convenor** of the session “**S24: Attribution of changes.**” in WCRP OSC-2023 .
- ❖ **Suryachandra Rao A. (MP) and Tereza Cavazos (WG-AMM)** are **Convenors** of the session “**S03: Global and regional monsoons**” in WCRP OSC-2023
- ❖ An In-person/hybrid meeting of **MP & WG-AFM** members is scheduled on 27th October at OSC-2023 at Kigali

Plans for 2023 and beyond

- MP will be spearheading the **WCRP/OSC Concept Paper on Global & Regional Monsoons**
- MP will be actively involved in the upcoming **Joint WCRP/WWRP Webinar Series on Regional Monsoon** (Asian-Australian, African and American Monsoon respectively)
- MP will be collaborating with **WCRP/CliC** to *understand the connections between the Himalayan cryosphere and Asian monsoons & Impacts of reduced Arctic sea-ice on Asian monsoons*
- MP will be collaborating with **WCRP/SPARC** in the **ACAM** (Atmospheric Composition and the Asian Monsoon) project.
- MP and WG-AMM will be actively involved in the Monsoon Sessions of the **9th GEWEX Open Science Conference** during 7-12 July 2024 at Sapporo, Japan
- An In-person/hybrid meeting of MP & WG-AAM members is proposed during the 9th GEWEX Open Science Conference during 7-12 July 2024 at Sapporo, Japan



International Monsoons Project Office (IMPO)

Indian Institute of Tropical Meteorology (IITM)

Ministry of Earth Sciences (MoES), Government of India

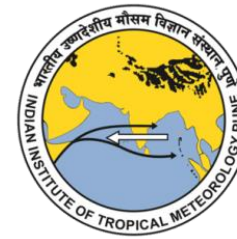
Pune, Maharashtra, India

<https://impo.tropmet.res.in/>

Executive Head: Dr. E.N. Rajagopal

Thank you for your attention

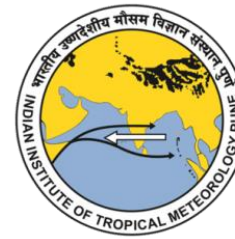




The International Monsoons Project Office ([IMPO](#)), hosted by the Indian Institute of Tropical Meteorology ([IITM](#)), an autonomous institute under the Ministry of Earth Sciences, Government of India, is *India's contribution to global monsoon research coordination.*

The IMPO functions as an [International Project Office \(IPO\)](#) of the World Meteorological Organization's ([WMO's](#)) World Weather Research Programme ([WWRP](#)) and the WMO/[IOC-UNESCO/ISC](#) Sponsored World Climate Research Programme ([WCRP](#)).

IMPO is built on the experience gained with the International CLIVAR Monsoon Project Office (ICMPO), hosted by IITM during 2015-2021, with the recognition that its mandate needs to be expanded to cover all monsoon research related matters in all **WMO programmes.**



Establishment of International Monsoons Project Office

- IMPO Hosting Agreement was signed between IITM and WMO in July 2021
- IMPO was formally launched in February 2022 at IITM, Pune, India
- Current Staff
 - Dr. E. N. Rajagopal, Executive Head
 - Dr. Susmitha Joseph, Senior Scientist
 - Mr. Somnath Mahapatra, Senior Scientist
 - Dr. Rupa Kumar Kolli, Hon. Scientist



IMPO Launched Formally on 28 February 2022



WMO, WCRP, WWRP, MoES and IITM jointly organized an online event celebrating the launch of IMPO, to commemorate the launch and to highlight the consolidation of monsoon research under WCRP and WWRP with IITM's continuous support.

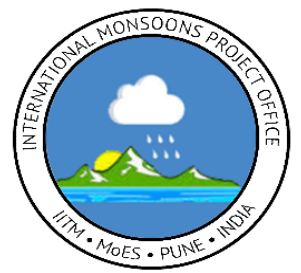
The event featured remarks by WCRP and WWRP Chairs, Video Message from Hon'ble Minister of MoES, Secretary of MoES and Director of IITM.

It also included a key scientific talk by international monsoons expert Prof C.P. Chang, on the current highlights of global monsoons research.





Scope and Responsibilities of IMPO



One of the core responsibilities of IMPO is to support the activities of the [Monsoons Panel](#), jointly established by [CLIVAR](#) and [GEWEX](#) core projects of the [WCRP](#).

IMPO also supports the monsoon relevant activities of the World Weather Research Programme (WWRP)'s Working Group on Tropical Meteorology Research ([WGTMR](#)).

IMPO promotes cross-panel linkages within the working structures of the WWRP as well as WCRP, on monsoon-related matters.

IMPO will facilitate the international community to work together towards improving understanding of the monsoons.

IMPO, along with the World Climate Research Programme (WCRP), will work towards coordinating with global monsoon experts and undertake collaborative research on monsoon affecting the Asian, African, American and Oceania countries.



IMPO Supports



- CLIVAR/GEWEX Monsoons Panel
- 3 Regional Working Groups
 - Asian Australian Monsoons
 - African Monsoons
 - American Monsoons
- WWRP/WGTMR Monsoons Team

IMPO Supports & Coordinates the scheduling/organization of online/offline meetings of the Panel, Working Groups & Teams. IMPO also participates in all the meetings.

IMPO supports in selecting/replacing/inviting members to Panel, WGs & Team

IMPO informs about International research/meeting/funding opportunities

IMPO supports in generating proposals for submission to WCRP/WWRP for approvals

IMPO also participates in IPOs & WCRP Secretariat meetings – **Administrative level**

IMPO also supports WCRP & WWRP in organizing Monsoon related workshops/meetings