



World Meteorological Organization

Working together in weather, climate and water

Southeast Asian Climate Outlook Forum (SEACOF)

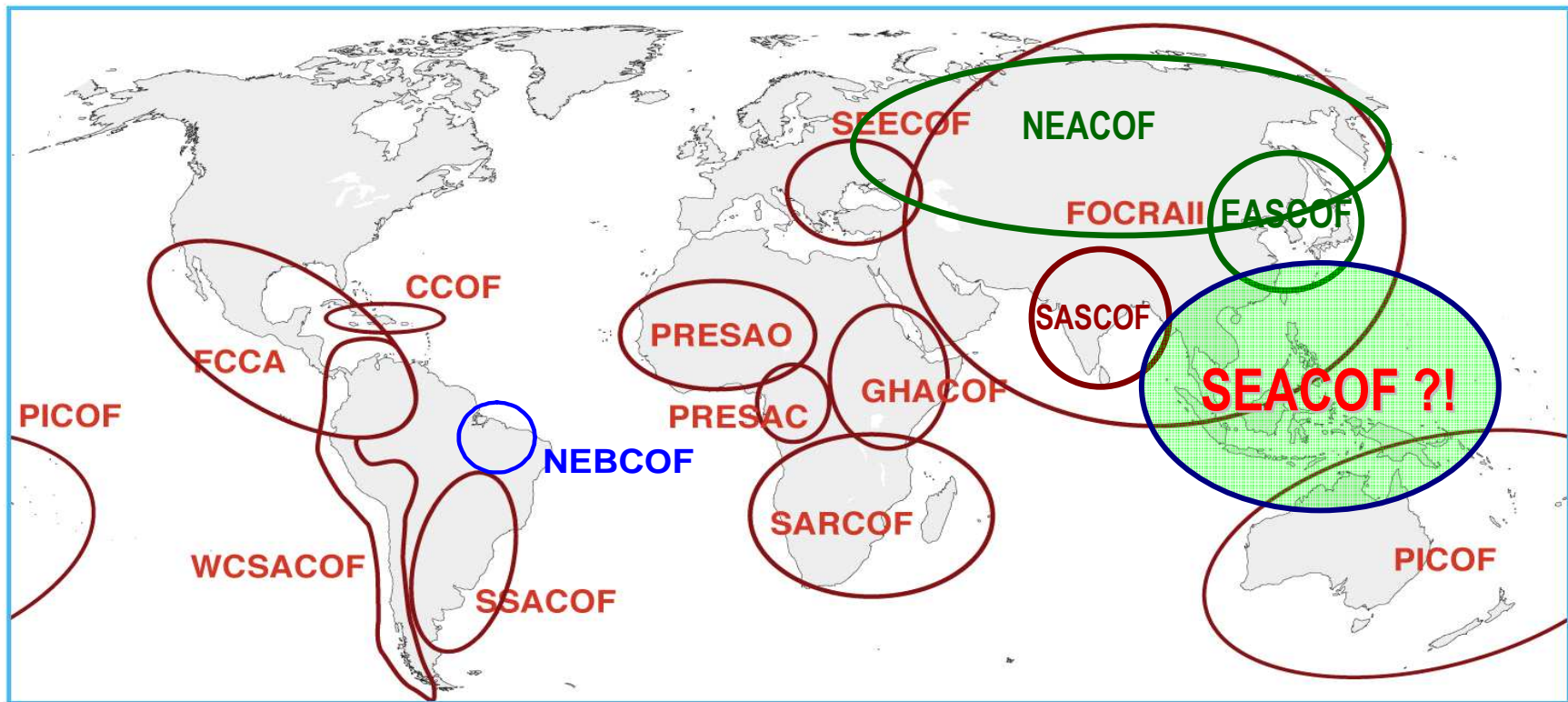
A Proposal



Regional Climate Outlook Forums (RCOFs)

- A **key component** of WMO Climate Information and Prediction Services (CLIPS) project activities.
- **First established** in October 1996 at the Workshop on Reducing Climate-Related Vulnerability in Southern Africa (Victoria Falls, Zimbabwe).
- **Gained momentum** as a regional response to the major 1997–1998 El Niño event.
- RCOF Concept was **pioneered in Africa and spread worldwide**.
- WMO and a number of national, regional and international organizations (e.g., NOAA, IRI, Meteo France, World Bank, etc.) have **supported their growth and expansion**.

Regional Climate Outlook Forums worldwide





RCOF Concept

- RCOFs have the responsibility **to produce and disseminate a regional assessment** (using a consensus-based approach) of regional climate for the upcoming season.
- Built into the RCOF process is a **regional networking** of the climate service providers and user-sector representatives.
- RCOFs **bring together** national, regional and international climate experts, on an operational basis, to produce regional climate outlooks based on **input from NMHSs, regional institutions, Regional Climate Centres (RCCs) and Global Producing Centres of long range forecasts (GPCs) and other climate prediction centres.**
- Through **interaction with sectoral users**, extension agencies and policy makers, RCOFs assess the likely implications of the outlooks on the core socio-economic sectors in the region and explore potential applications of these outlooks.
- RCOF sessions are expected **to feed into national forums** to develop detailed national-scale climate outlooks and risk information including warnings for communication to decision-makers and the public.



RCOF Process (1/3)

- Meetings of the regional and international climate experts to **develop a consensus** for the regional climate outlook, typically in a probabilistic form;
- The **Forum proper**, that involves both climate scientists and representatives from the user sectors, for identification of impacts and implications, and the formulation of response strategies;
- **Training** programmes on seasonal climate prediction to strengthen the **capacity of the national and regional climate scientists**;
- **Outreach** sessions involving sector specialists as well as media experts to develop effective **communications strategies**.

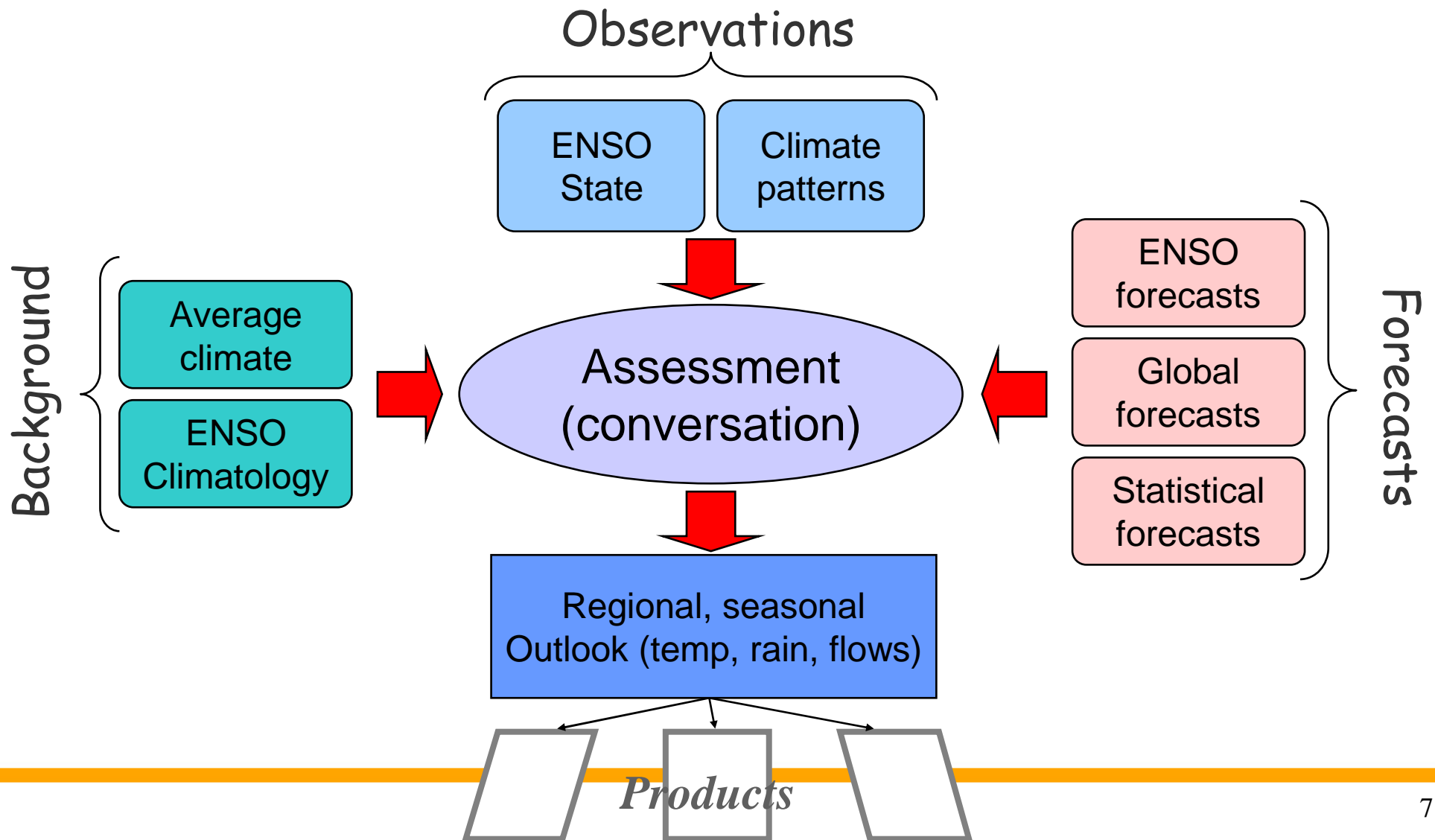


RCOF Process (2/3)

- Determine the **critical time for development of climate prediction** for the region in question;
- Assemble **a group of experts**:
 - Large scale prediction specialists,
 - regional and local climate applications and prediction/downscaling specialists,
 - stakeholders representative of climate-sensitive sectors;
- Review current **large scale (global and regional) climate anomalies and the most recent predictions** for their evolution;
- Review current **climate conditions and their impacts at local, national and regional levels**, and national-scale predictions;



Consensus Process in RCOFs: Mostly Subjective



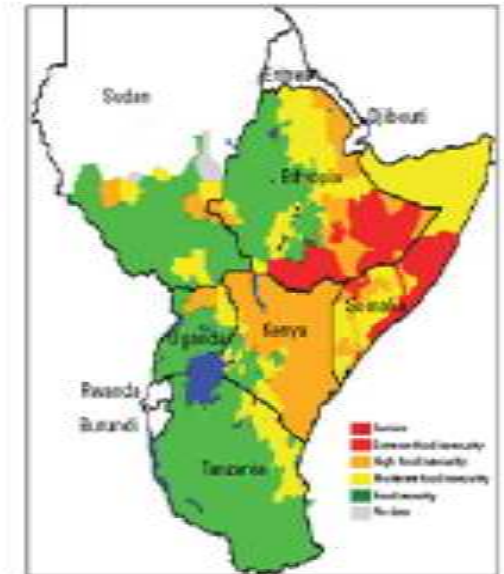
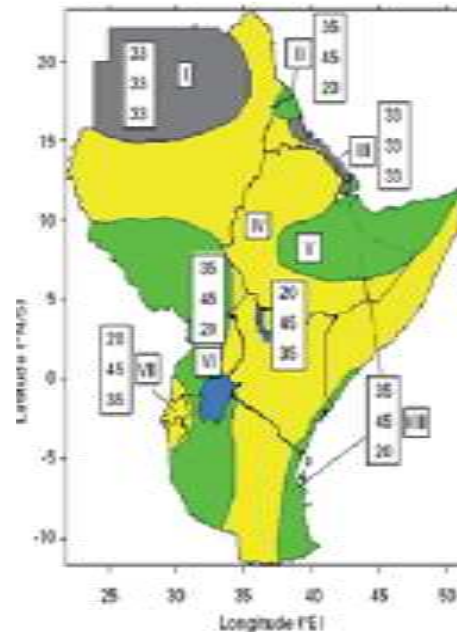


RCOF Process (3/3)

- Considering all factors, **produce a climate outlook** with related output (e.g. maps of temperature and precipitation anomalies) that will be applied and fine-tuned by NMHSs in the region to meet national needs;
- **Discuss applications** of the outlook and related climate information to climate-sensitive sectors in the region; consider practical products for development by NMHSs;
- Develop strategies to **effectively communicate** the information to decision-makers in all affected sectors;
- **Critique** the session and its results:
 - document achieved improvements to the process and any challenges encountered,
 - Establish steps required to further improve the process for subsequent sessions.

RCOFs and Food Security Outlooks

- **Regional agriculture and food security outlooks** are now regularly produced based on the climate outlooks after the RCOFs in some regions.
- For example, the climate outlook in the Greater Horn of Africa in the form of precipitation for March to May 2008 has been used by Famine Early Warning Systems Network (FEWS-NET), to prepare the Food Security Outlook for March to July 2008.





RCOFs and Public Health

- Many diseases are indirectly or directly associated with climate. **Vector-borne diseases are sensitive to changes in meteorological parameters** such as rainfall, temperature, wind and humidity. These include malaria, dengue and Rift Valley Fever (RVF). **Extreme climate events can trigger rampant outbreaks of waterborne diseases** such as cholera and typhoid in areas where they are not common.
- Some efforts are now being made to provide **warning of changes in epidemic risk** by integrating rainfall, temperature and other non-climate information.
- For example, **Malaria Outlook Forums** (MALOFs) are now regularly held in association with RCOFs in southern Africa and the Greater Horn of Africa.
- The **information developed jointly by climate and health experts** in these sessions, together with information on population vulnerability, food security, immuno-suppression and adequacy of control coverage, gives the health community a longer lead-time over which to optimize the allocation of the resources available to combat malaria.



WMO and RCOFs

- WMO assists developing countries hold and benefit from these forums through CLIPS:
 - **facilitating** training workshops,
 - **coordinating** the collection and dissemination of training materials,
 - capacity building initiatives including **some initial (limited) financial support**, and
 - coordination of special applications to sectors (e.g. health and agriculture)
- **WMO RCCs and other regional institutions play leading roles** in the organization and overall implementation of these forums
- **WMO GPCs provide key inputs** and strong technical support to RCOFs
- NMHSs, the regions and the users of the products must contribute to the **sustainability of COFs** in the regions: demonstrate utility of the forums and value of the products to those who need the information
- **Research capacities** at the regional level need to be enhanced, to assess the forecast skills as well as to work towards their improvement
- WMO promotes **strong sub-regional ownership and sustainability** of the RCOF process



SEACOF Initiative (1/2)

- The **potential for the development of a Southeast Asian Climate Outlook Forum (SEACOF)** has been discussed recently on several platforms and its importance recognized.
 - President of RA V highlighted its need at the recent WMO Congress
 - WMO CLIPS Training Workshop on Operational Climate Prediction, Citeko, Indonesia (27 September – 7 October 2011)
- There is a **general agreement** that such a process will greatly enhance regional cooperation as well as more effective engagement of the user community.
- SEACOF will help **consolidate the existing capacities in the region**, and facilitate sustained and consistent approaches to operational climate prediction.
- This will need **active participation of all the NMHSs in the sub-region** including the associated multi-lateral entities (e.g., ASEAN, RIMES, etc.).



SEACOF Initiative (2/2)

- **RA V Regional Seminar on Climate Services is requested to endorse the SEACOF concept, and facilitate broadbased support.**
- RA V Working Group on Climate Services meeting on 4 November will consider the implementation strategy for SEACOF, along with the RCC and RCOF implementation in RA V.
- **Collaboration with RA II** will also be required, to ensure the participation of RA II members of SEA.
- Subject to endorsement by all participating countries, we may work towards the **first session of SEACOF in 2012.**
- **WMO Secretariat is requested to assist** in the coordination of SEACOF preparatory phase, in close consultation with all the relevant stakeholders.
- SEACOF may initially have **exclusive focus on the most important season common to most countries**, and the needs for covering other aspects of the sub-regional climate can be addressed in due course.



Concluding Remarks

- Climate-related risk management requires **regional and multi-disciplinary collaborations** and exchange of information.
- It is important to find ways for all countries to cope with climate variability through **improved access to climate information and prediction products**.
- **RCOFs** have fostered interactions and exchange of information between the climate scientists and users of climate information.
- Southeast Asia has a **great potential to benefit** from the RCOF process, with most of the countries sharing a common climatic setting dominated by the monsoons and links with ENSO and very encouraging predictability.
- **Capacity building at the national level**, in operational climate prediction, is a major challenge to be addressed in the SEACOF process
- SEACOF needs to bring **greater attention to user aspects**.



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Thank You