



World Meteorological Organization  
Working together in weather, climate and water

# THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES: Communicating climate change science

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# New Developmental Needs and Associated Climate Service Needs

- Climate can be viewed as a risk and also as a resource;
- Assessment of Climate Change and Variability with a regional focus;
- Identification of key vulnerabilities (impact databases, current and future frequency of extremes, ...);
- Seasonal to Interannual Prediction (SIP) and regional climate outlooks;
- Future climate scenarios;
- Downscaling of SIP and climate scenarios;
- Climate-related risk management:
  - Applications of climate products in decision-making;
  - Interpretation and use of probabilistic products;
  - Climate derivative products.
- A high level of interdisciplinary knowledge is required for the development of climate products including assessment of uncertainties



# Communication of Climate Information to Users: the Basis

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- Climate services are vital for improved decision making, from the most vulnerable individuals to the largest of governments.
- Users of climate information live and work in a complex climate-environment-society system in which climate is one of the many factors to be considered.



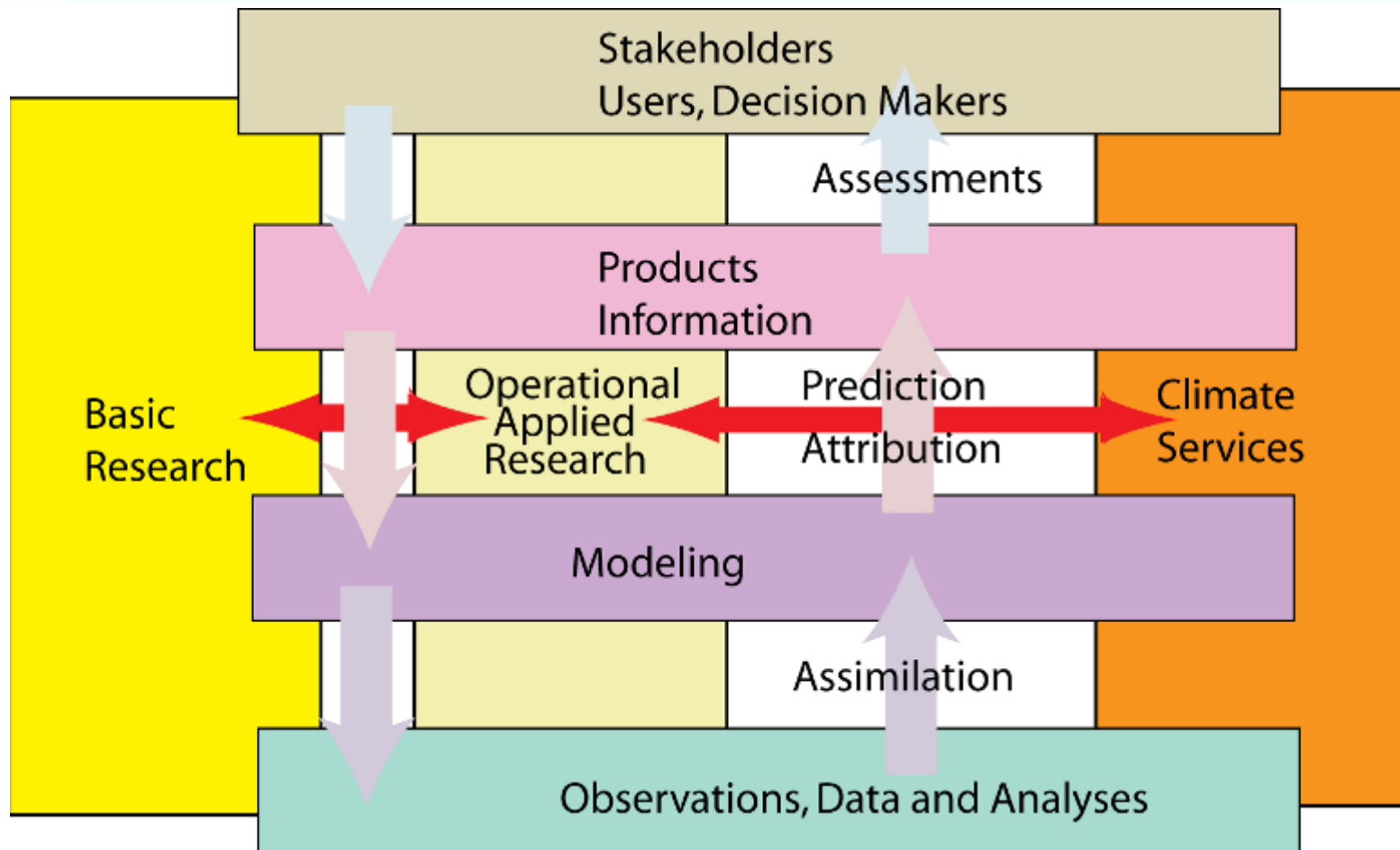
# Communication of Climate Information to Users: the Basis

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- Tailoring/provision of user-focused climate products and services should:
  - reflect understanding of the user's decision process and priorities,
  - help users address problems,
  - optimize opportunities, and reduce risks.
- A lot of information is available, but may not be getting to the 'last mile' where it is needed, in all regions.
- Even if users have information, they may not use it, or use it as effectively as they should.



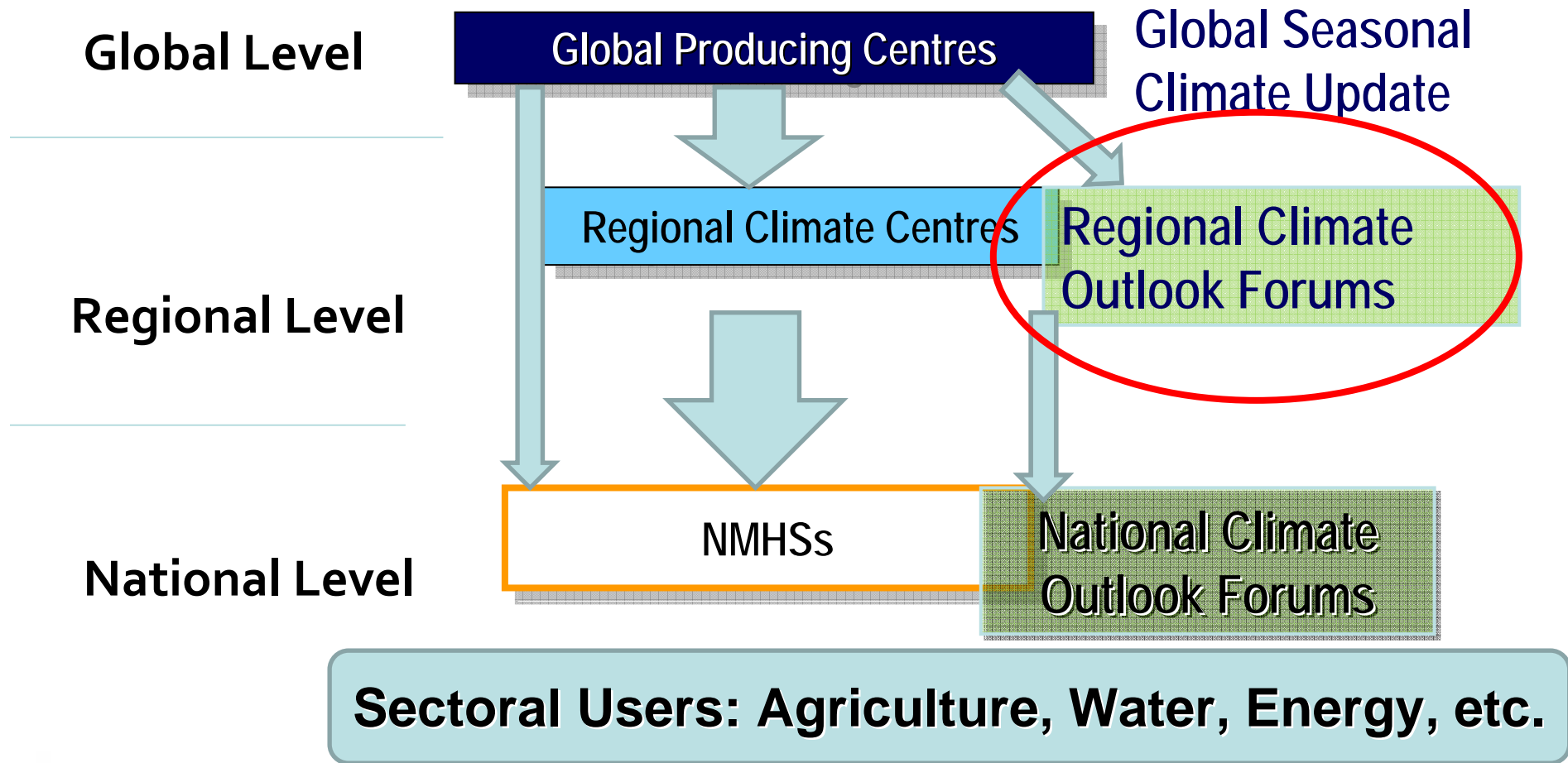
# Climate Information Generation System



Source: K. Trenberth

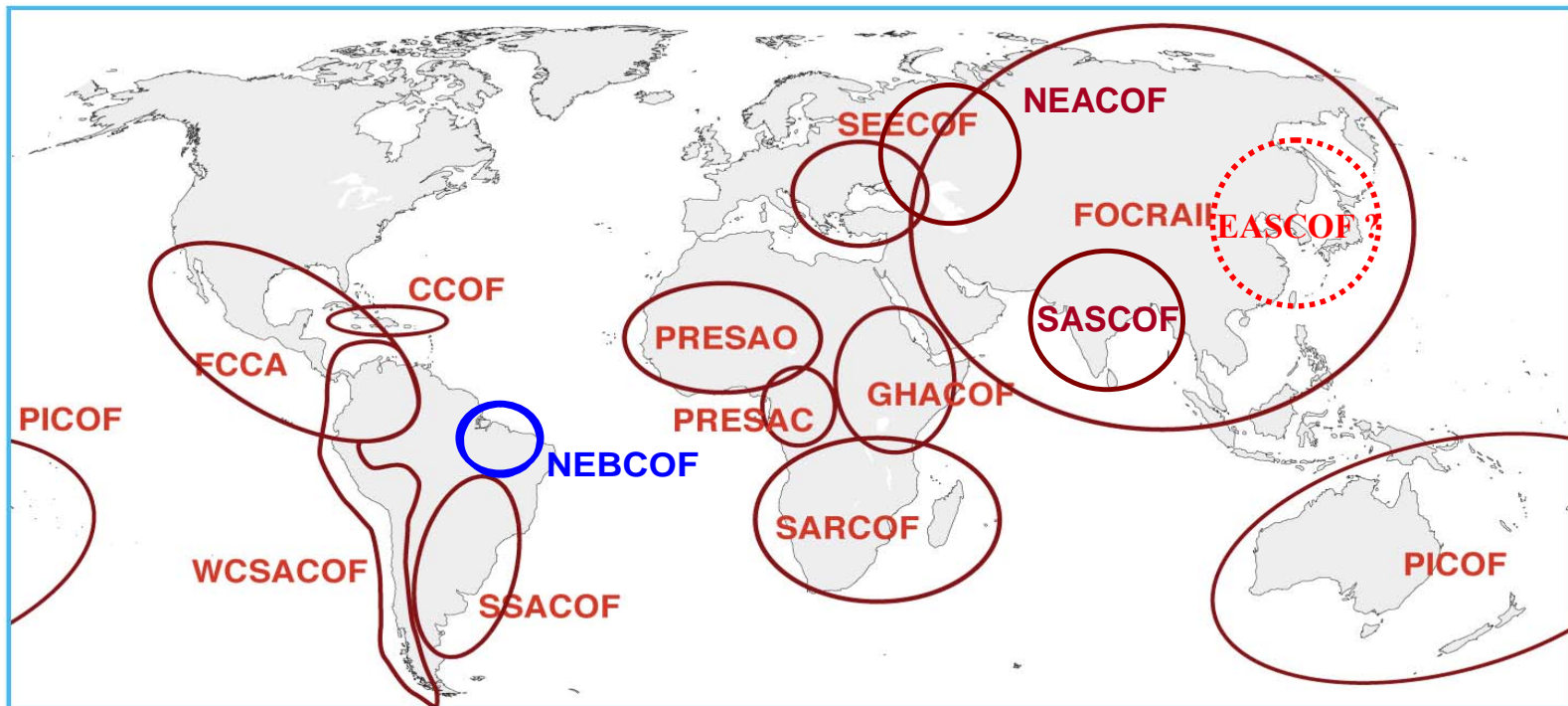


# Regional Climate Outlook Forums in the Climate Services Information System





# Regional Climate Outlook Forums worldwide





# User Interface Platform of Global Framework for Climate Services



The needs of the user community are diverse and complex.





# Heat Waves and Health Warning Systems



- Reduce mortality and morbidity associated with life-threatening heatwaves
- Strengthen WMO/NMHS partnerships with health and social services (global, regional, national) for effective service delivery – Met forecasts alone are insufficient
- Develop Guidance on and tools for:
  - early warning and detection of health effects of extreme weather/ heat-waves;
  - national/local preparedness planning for extreme heat events;
  - public/media outreach;
  - interventions to save lives.



# Towards Improved Societal Response and Sustainable Development

- Relevant climate information is expected to improve policy and decision-making
  - Climate data
  - Climate analysis and monitoring capabilities
  - User-targeted climate prediction/information products
  - Climate risk modelling tools – Critical for decision making
- There is significant diversity in demand and supply of climate information at national level
  - Needs and requirements of the users related to policy and decision-making
  - Needs, requirements and capabilities of providers



Thank you

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