



# The Global Framework for Climate Services

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# Global Framework for Climate Services

## Goal:

- Enable better management of the risks of climate variability and change and adaptation to climate change at all levels, through development and incorporation of science-based climate information and prediction into planning, policy and practice.



# Why a Framework for Climate Services?

- It will enable greater integration and coordination across disciplines and sectors in the climate services agenda for better use of existing infrastructure, technical capabilities (and resources...) for improved outcomes in climate-sensitive sectors.
- A Framework for Climate Services will build on existing capacities and leverage these through coordination to address shortcomings.
- Many countries lack the infrastructural, technical, human and institutional capacities to provide high-quality climate services.
- Climate services have not been able to reach the last mile to those who need them the most.

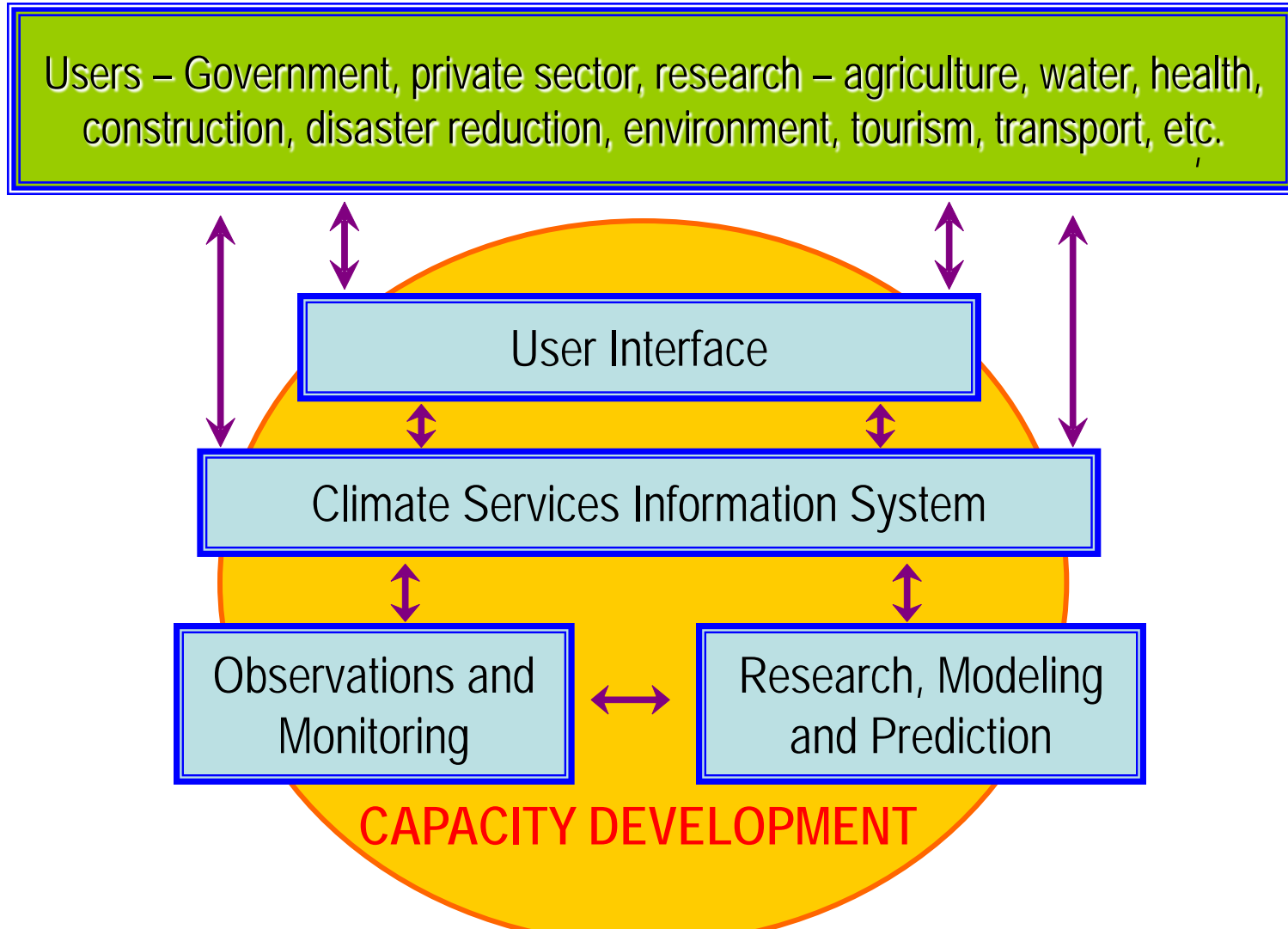
# What are Climate Services?

- Provide a source of accumulated knowledge about the past, present and future of the climate system;
- The development and delivery of a range of "products" and advice based on this knowledge about the past, present and future climate and its impacts on natural and human systems
  - Historical climate data sets
  - Climate monitoring
  - Climate watches
  - Monthly/Seasonal/Decadal climate predictions
  - Climate change projections
- The use and the effective application of these products to help achieve the desired results.



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# Components of GFCS



# GFCS Sectoral Priorities

All sectors to be tackled but in the first four years the GFCS is proposing giving priority to:

- Agriculture and Food Security
- Disaster risk reduction
- Water
- Human Health



# The principles of GFCS



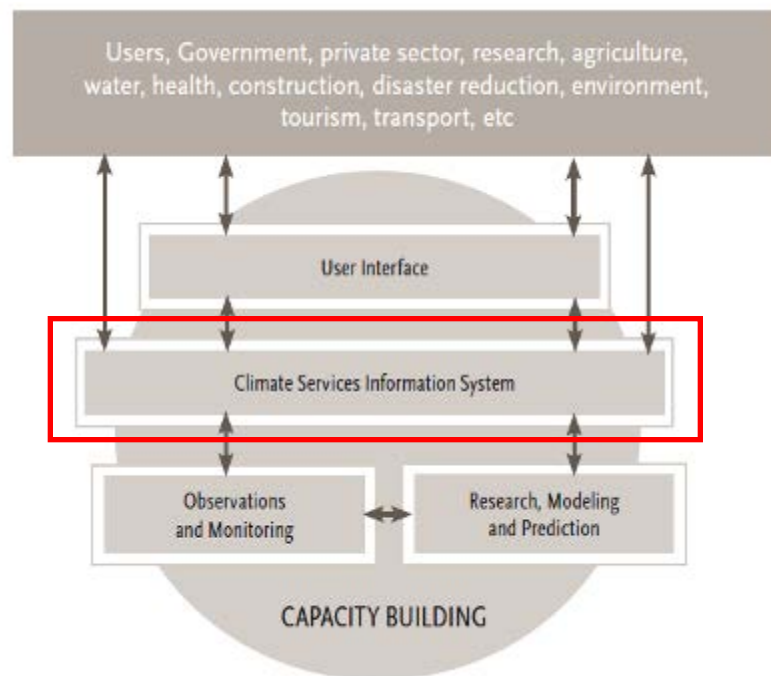
# Climate Service Information System (CSIS)

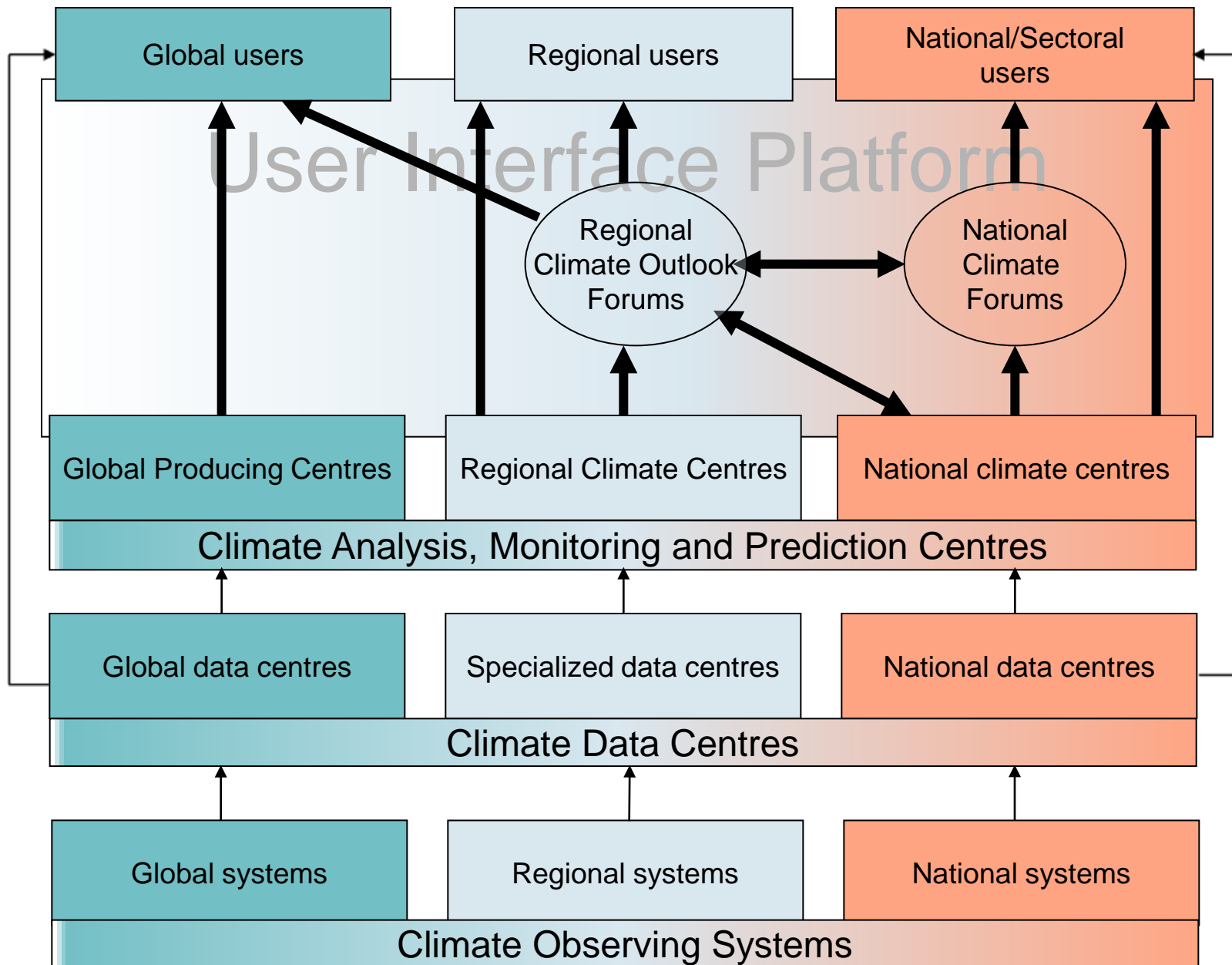
- The CSIS is the component of the GFCS most concerned with the generation and dissemination of climate information.
- It is the 'operational centre' of the GFCS. It will include climate data, monitoring, prediction (monthly, seasonal, decadal) and projection (centennial) activities.
- HLT report: 'The Climate Services Information System is the system needed to collect, process and distribute climate data and information according to the needs of users and according to the procedures agreed by governments and other data providers.'



# Role of CSIS within the GFCS

- The CSIS is the means of delivery of climate data and products.
- It comprises global, regional and national centres and entities that generate/process climate information (observations and predictions), and the exchange of data and products to agreed standards and protocols.
- It must be supported by observation and research programmes (e.g. GCOS, WCRP). With 'pull through' facilitated by strong links.
- Capacity building initiatives will increase 'conductivity' of data flow
- Part of the CSIS is in place, but new infrastructure is needed to fulfil the GFCS vision.







# GFCS implementation priorities

- Capacity development:
  - Linking climate service users and providers.
  - Developing national capacity in developing countries.
  - Strengthening regional climate capabilities.
- High-profile projects to address gaps across pillars and priority areas;
- Observations and data recovery in data sparse areas;
- Partnerships across sectors and disciplines for addressing gaps and priorities;
- Governance, leadership and management capacity to take the Framework forward.

# First Session of Intergovernmental Board on Climate Services\* (IBCS-1)

- 1-5 July 2013, Geneva; including “Operational Climate Services: A Dialogue on Practical Action” on 1 July
- Adopted the GFCS Implementation Plan
- Governance Structure
  - Chair: Dr Anton Eliassen (Norway)
  - Co-Vice-Chairs: Dr Laxman Singh Rathore (India) and Dr Linda Makuleni (South Africa)
  - 28-Member Management Committee
- Partnership Advisory Committee
- GFCS Trust Fund (Contributions/pledges so far: CHF 30 million)
- GFCS Office (as part of WMO Secretariat)
- IBCS-2 in November 2014 in Geneva

*\*Established by World Meteorological Congress in 2012*

# Deliverables and Targets over 2 years

- Implement the agreed governance structure of GFCS
- Initiate a reporting structure for national, regional and global entities to report on their activities
- Implement a set of projects to demonstrate the value and build the foundation for additional achievements to be made
- Develop national and regional capacities to enable the implementation of new projects and the scaling-up of initial activities
- Engage the user community globally and demonstrate the value of climate services at regional and national levels.

# CSIS Projects

- Establish and coordinate operational support for Frameworks for Climate Services at the national level in developing countries
- Define, build and make available a Climate Services Toolkit to all countries
- Establish modern Climate System Monitoring based on improved operational monitoring products
- Implementation of Climate Watch System
- Standardize the operational CSIS products
- Promote effective CSIS-wide use of WMO Information System (WIS)
- Facilitate the effective use of GPC and other global climate products by regional and national providers (e.g. RCCs and NMHSs), including the operational provision of Global Seasonal Climate Update
- Strengthening regional systems for providing climate services



# Early Implementation of GFCS

- Pilot Projects on frameworks for climate services at national level
  - Burkina Faso, Chad, Mali, Niger, Senegal, [South Africa](#), [Nepal](#), [Belize](#), [Dominica](#), [Spain](#)
- Regional Consultations
  - For LDCs in Asia, Bangkok, October 2012
  - For the Caribbean, Port of Spain, May 2013
  - [SIDS in the Pacific, Cook Islands, 31 March-4 April 2014](#)
  - [Latin America, 28 July – 1 August 2014](#)
- Establishment of joint project offices
  - WHO/WMO
  - GWP/WMO
  - [WFP/WMO](#)
- Establishment of an Interagency Coordination Group with UN partners

# GFCS Adaptation Programme in Africa



## Focus Countries

- Tanzania and Malawi
- Programme runs for 3 years
- Total budget of USD 10m

## Partners



RESEARCH PROGRAM ON  
Climate Change,  
Agriculture and  
Food Security



International Federation  
of Red Cross and Red Crescent Societies



World Food Programme



World Health Organization





# Programme for Implementing GFCS at Regional and National Scales



## Focus Regions

- **Small Island Developing States**
  - Pacific Island Countries
  - Caribbean
- **South Asia**
  - Including Third Pole region
- **Polar Region (Arctic)**

## Also supporting

- Global Action on Integrated Drought Management
- Capacity Development for Climate Sciences

**Total budget - 6.2m USD**



# Lessons learned from regional workshops and national consultations

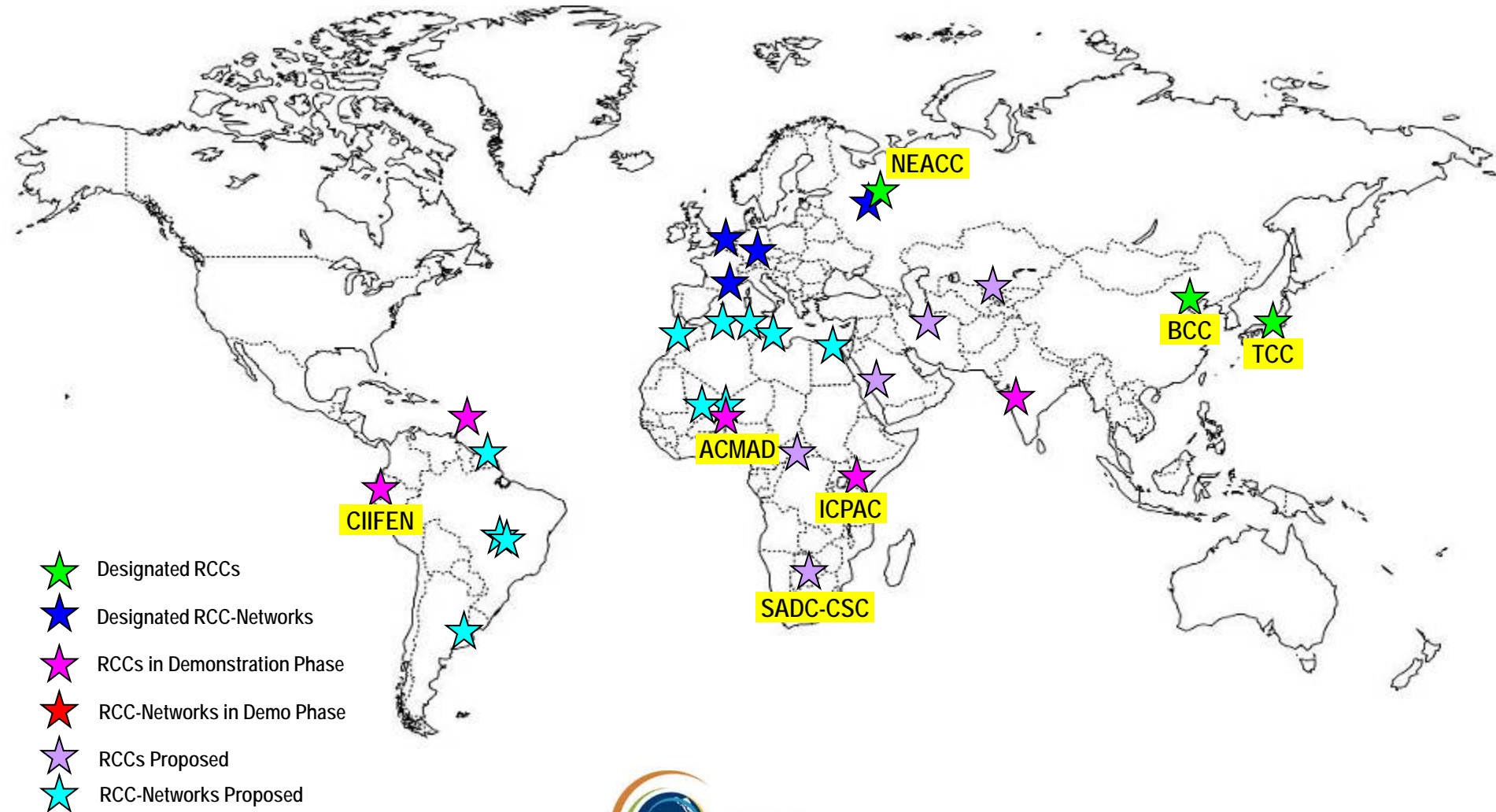
## Regional

- Importance of research and science
- Role of Regional Climate Outlook Forums
- Maximization of limited resources through regional approach
- Exploring gaps, capacity development, and strategies for engaging stakeholders

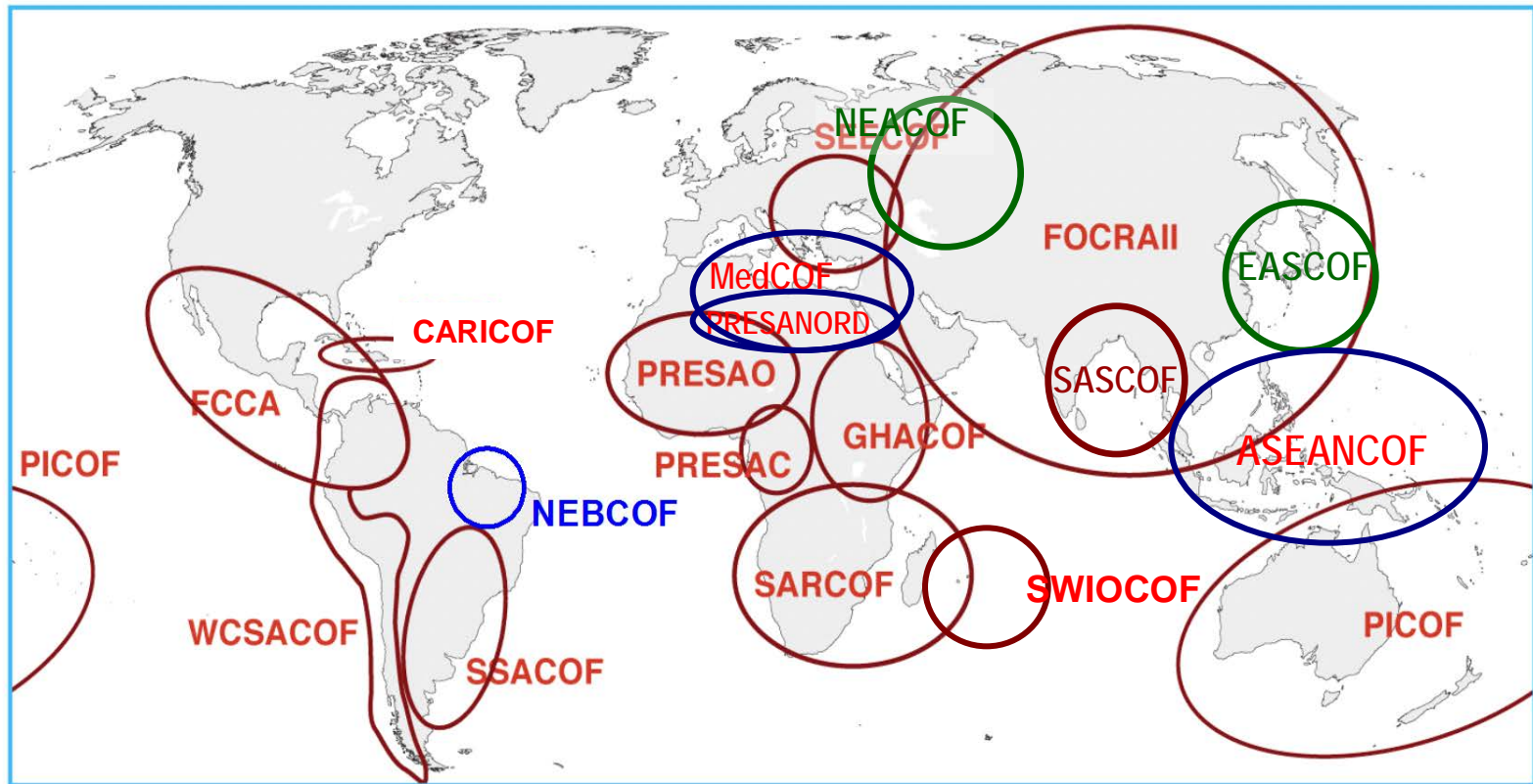
## National

- Systematic dialogue with users
- Understanding in-country capabilities
- Identification of data and observation requirements
- Identification of priority research questions
- Building sector-specific capacities
- Leveraging enabling factors

# WMO RCC Status Worldwide



# Regional Climate Outlook Forums worldwide



# Project Compendium



## Priorities

- Reducing vulnerability to climate hazards
- Advancing development goals
- Mainstreaming climate information for decision-making
- Engagement of providers and users
- Maximizing utility of climate service infrastructure

- Definition of **principles** allowing designation of **activities implemented by various stakeholders** as contributing to GFCS
- 40 project proposals for a total of CHF 140 million
  - From 1 to 10 years
  - From CHF 0.1 to 40 million
- UN: FAO, UNDP, UNESCO, UNESCO/IOC, UNISDR, UNITAR, WB, WFP, WHO, WMO
- Others: GWP, IFRC

# Operational infrastructure required

- Technical infrastructure
  - Requirements for the different components of the GFCS
  - Interoperability of databases (e.g., WIS compliance)
  - Climate Services Toolkit (including downscaling/tailoring tools)
  - Web platform for dissemination
- Global-Regional-National interaction
  - Networking capabilities (national access to as well as contribution to global and regional products)
- Best practices and standardized approaches
  - Quality management, best practices on methods, tools, etc.
  - Standardized approaches for regional/sub-regional synergy
- Linking operational products with the applications
  - Access to application models and decision support tools
  - User-accessible climate knowledgebase
  - Operational linkages with applications infrastructure

# Potential National Mechanisms

- Framework for Climate Services at the national level
  - Similar to GFCS structure but involves practicalities and specifics for delivery of climate services at the national level.
  - Some countries may establish coordination mechanisms appropriate to their national context, largely as integral components of the NMHSs, to support/facilitate GFCS implementation at the national level
- National Climate Outlook Forums (NCOFs)
  - Adapting the Large and Regional scale forecasts to the national context
  - Tailoring products and translating key messages for users (Multidisciplinary Working Groups)
  - Evaluating the impact of expected conditions (with existing vulnerabilities)
- Coordination mechanisms at National level
  - Depend a lot on specific National context
  - Depend a lot on the positioning of NMHS within the Framework at the national level
  - Needs a strong and sustained users liaison
  - Needs coordination of Research (including climate change aspects)
  - Needs coordination of climate data and knowledge base



Thank you for your attention