

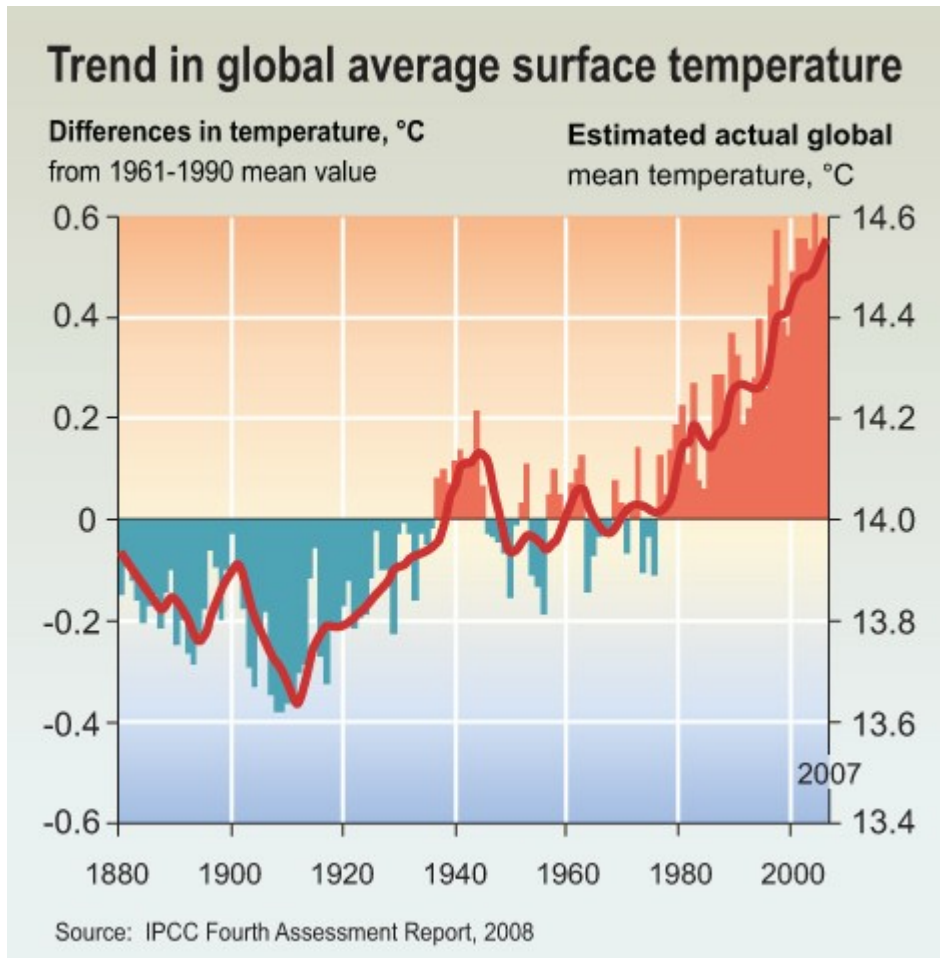


The Global Framework for Climate Services (GFCS)

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Director, Global Framework for Climate Services
(GFCS)

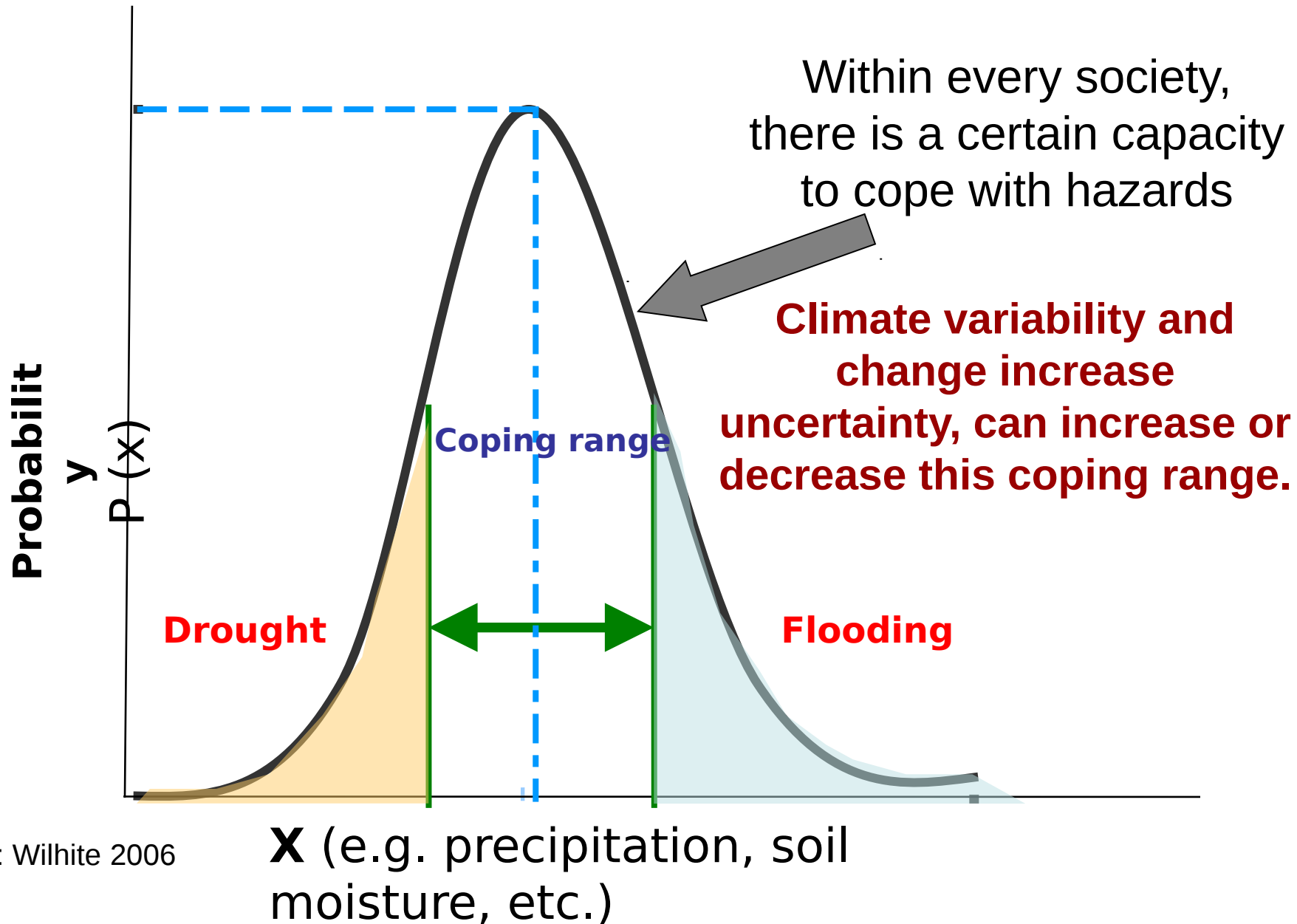
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The challenge of adaptation...

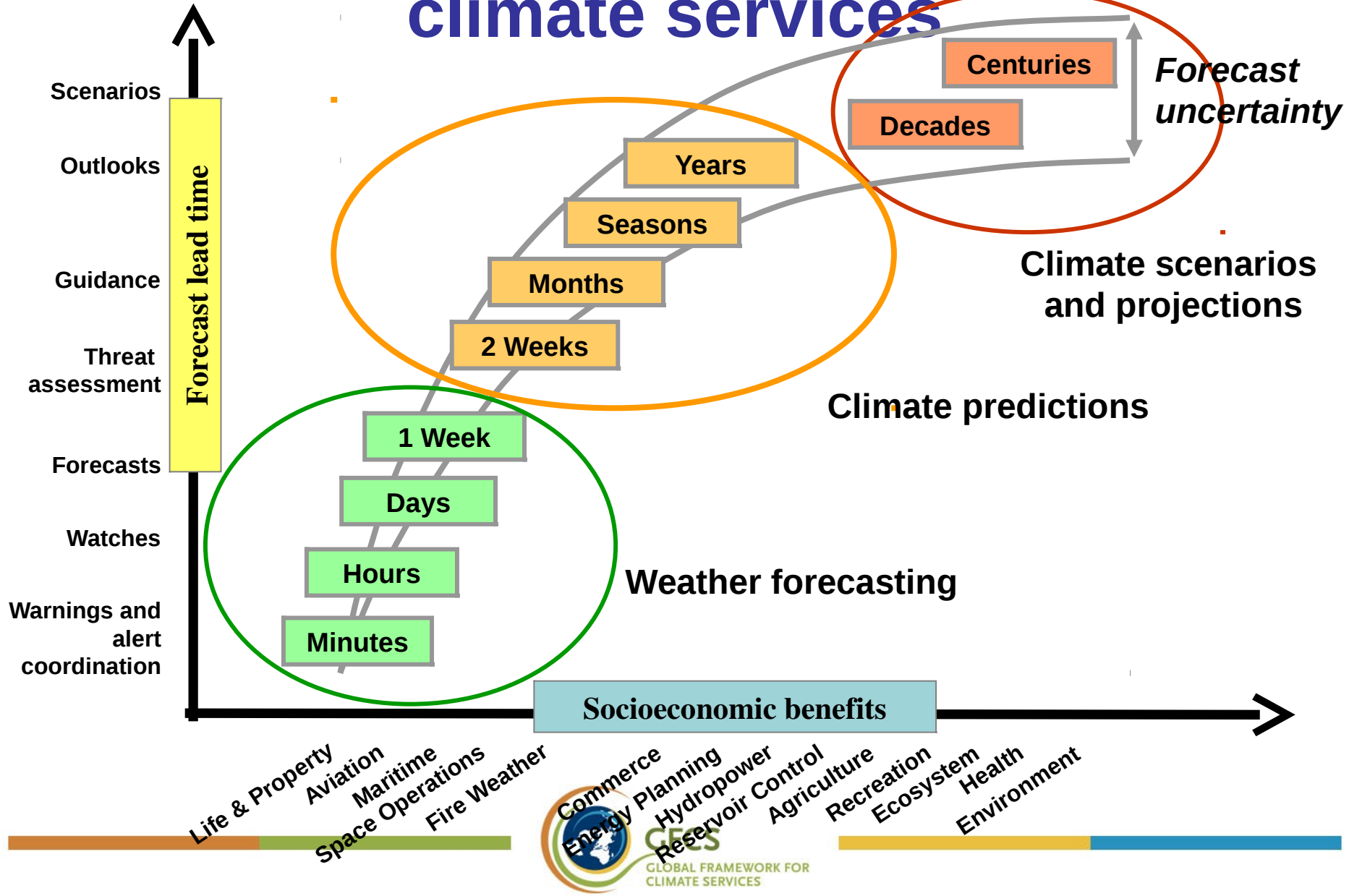


- Many socioeconomic sectors sensitive to climate variability and change
- Need for information for decision making
- The past is no longer a trustworthy indicator of the future
- New paradigms are required to support decision-making

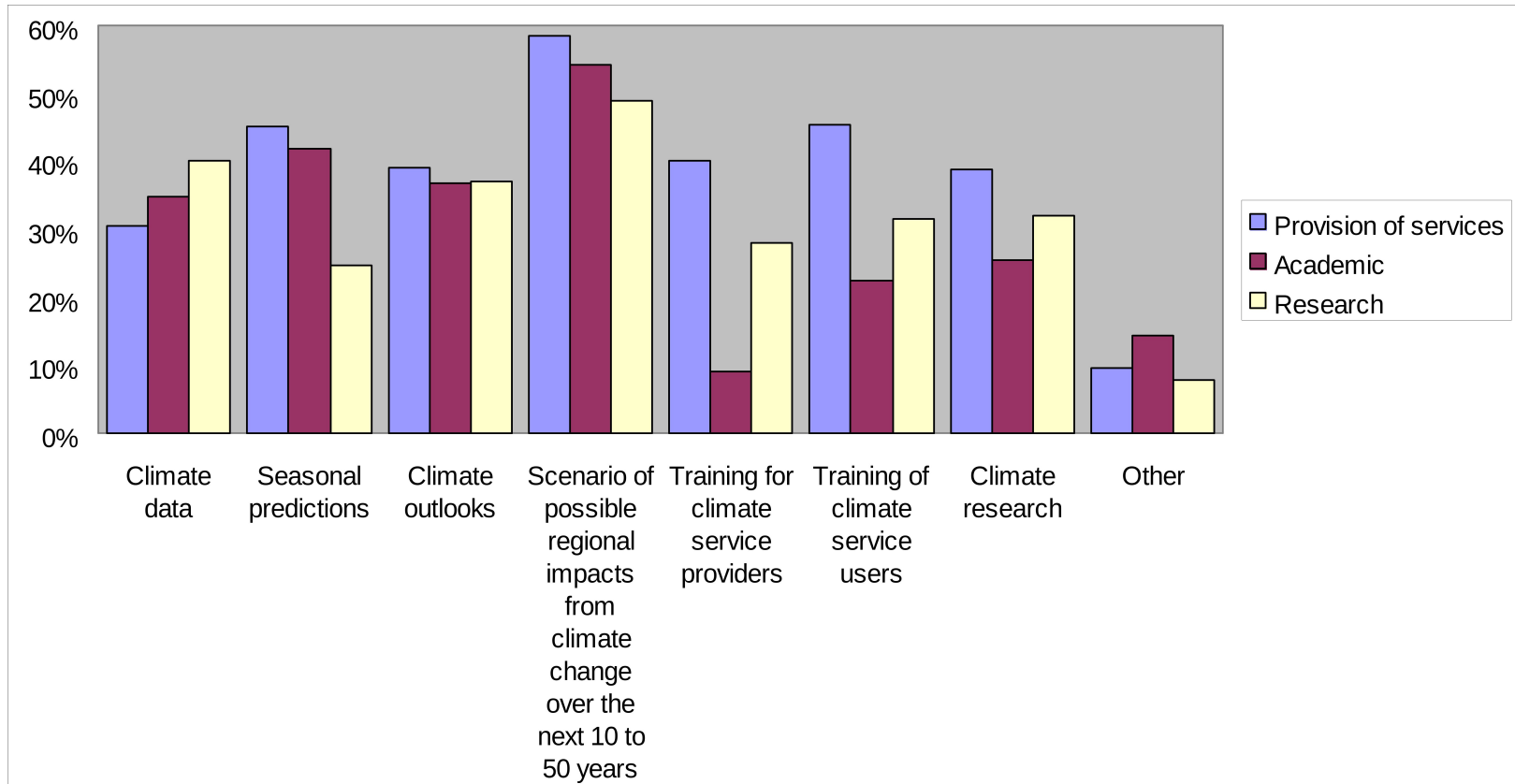
The challenge of adaptation...



Seamless hydrometeorological and climate services



The HLT survey

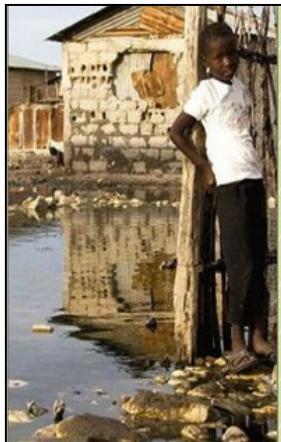


Vision

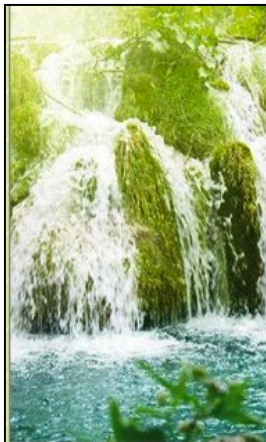
Enable better management of the risks of climate variability and change and adaptation to climate change, through the development and incorporation of science-based climate information and prediction into planning, policy and practice on the global, regional and national scale



**Agriculture and
food security**



**Disaster risk
reduction**



Water

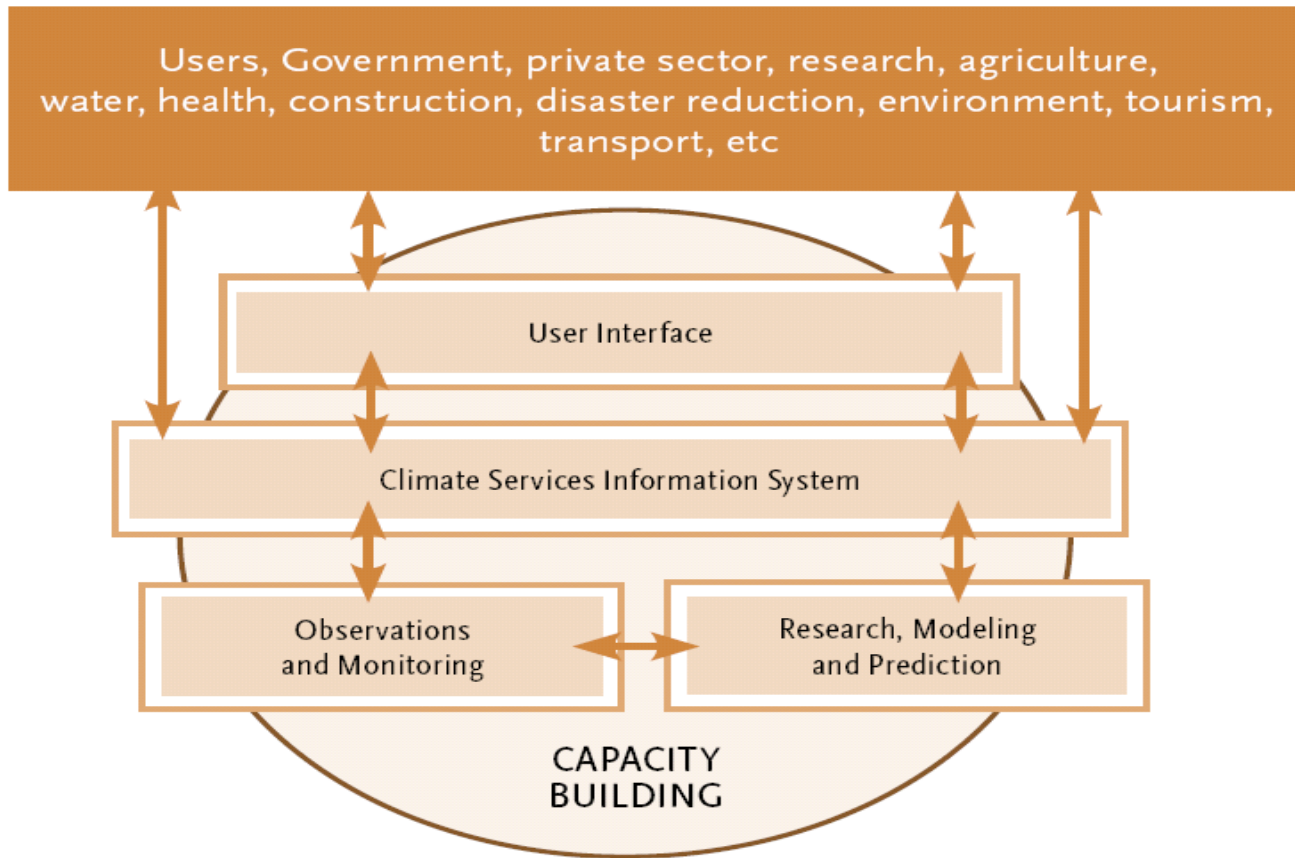


Health



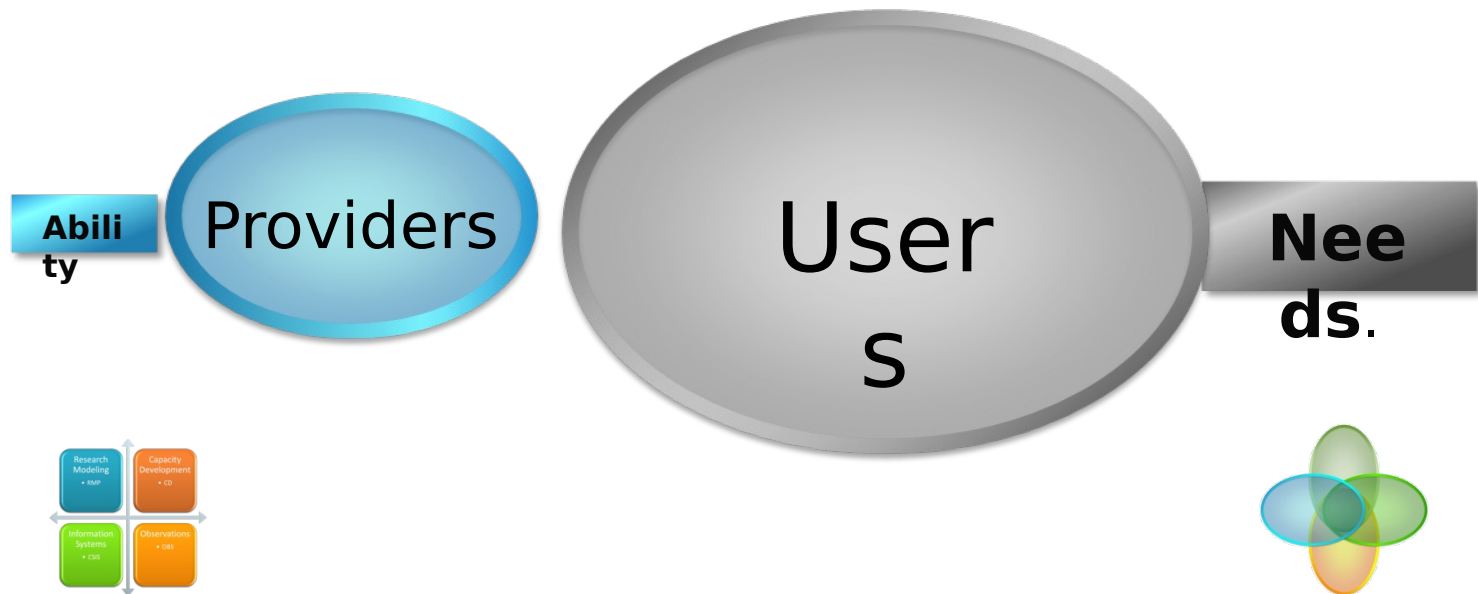
Energy

GFCS Pillars



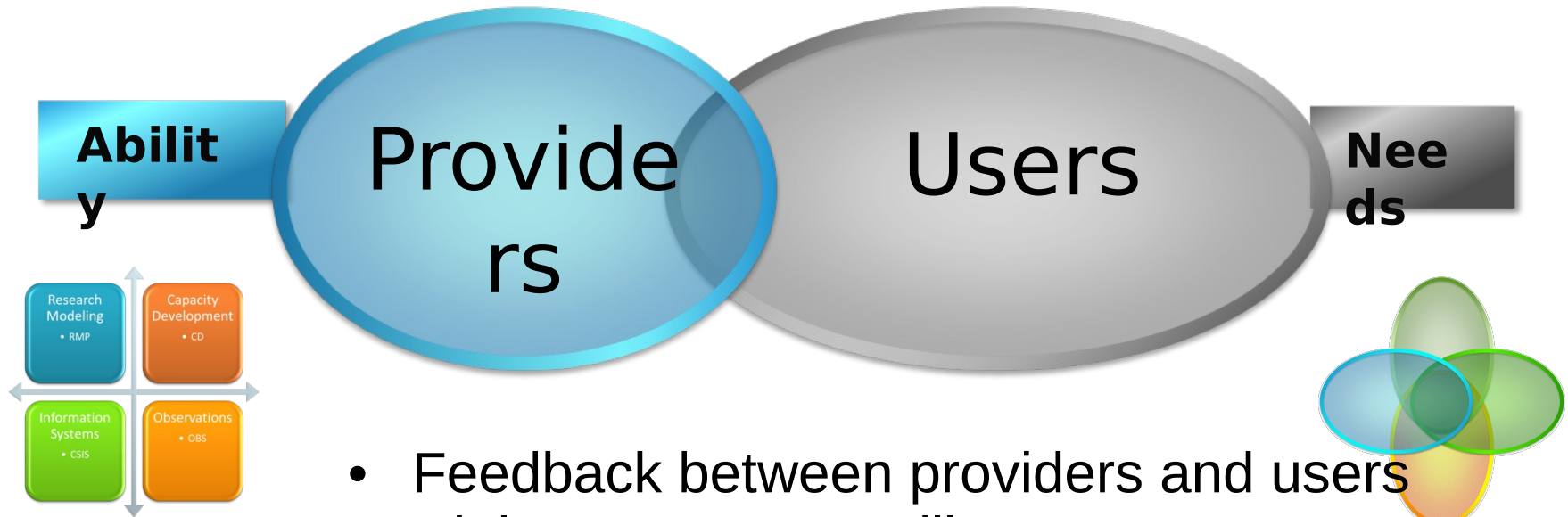
Gaps

UIP aims to fill



Requirement

Interface Providers & Users



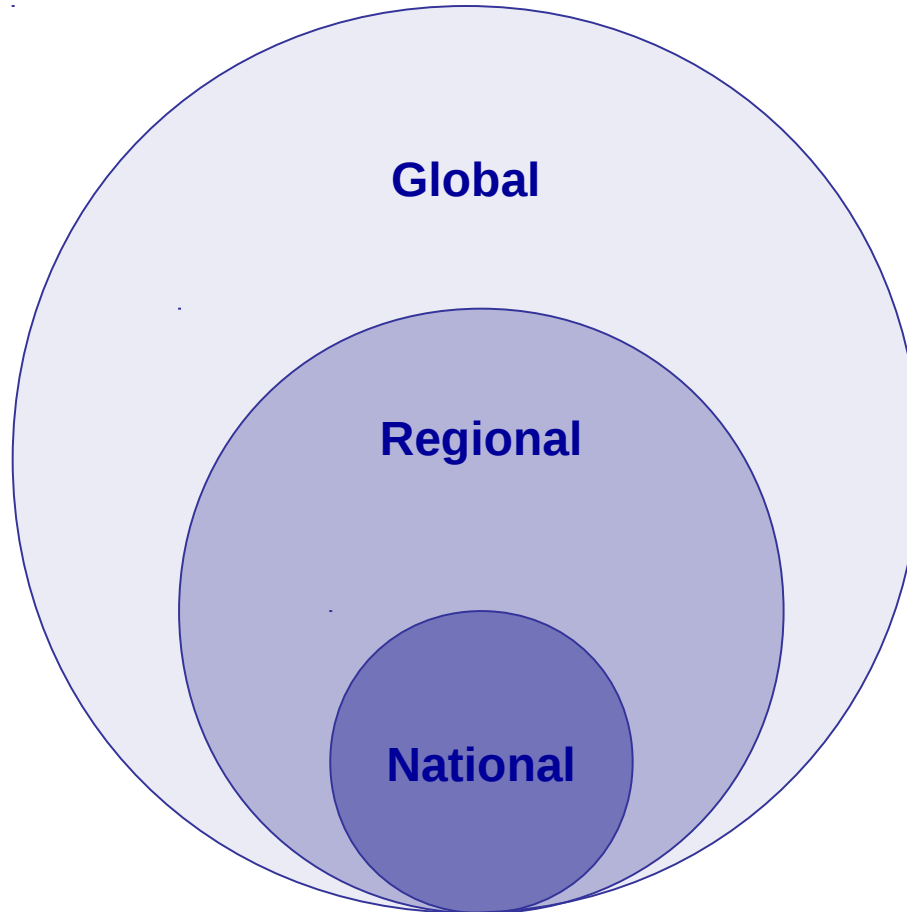
- Feedback between providers and users
- Dialogue amongst pillars
- Outreach
 - Using climate services to full potential
 - Moving data to decisions
- Capacity Development
 - Tune abilities to use driven focus

Various forms of UIP



- Questionnaires
- Extension Services
- Intermediaries, e.g., NGOs...

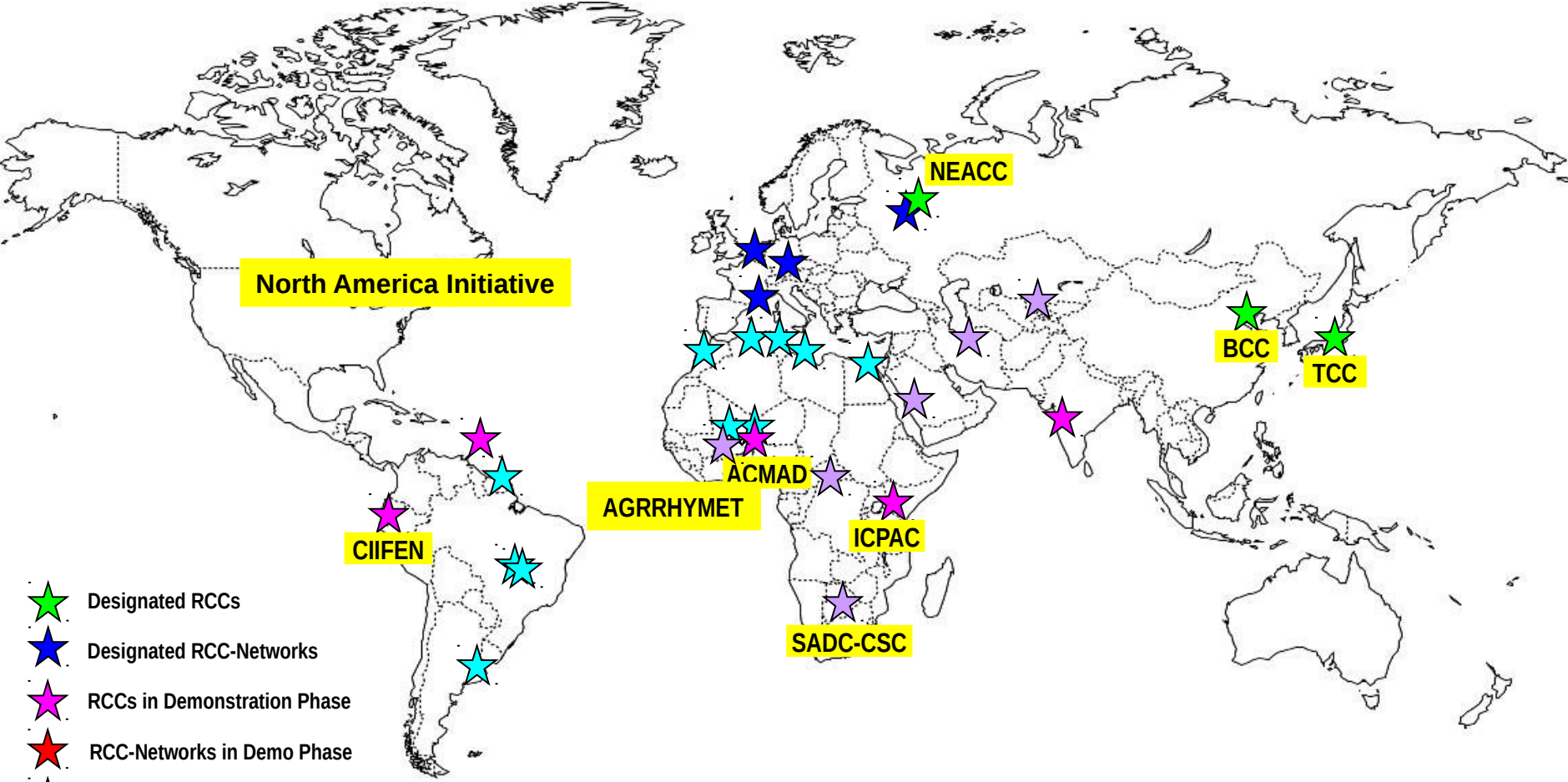
Domains of operation of GFCS









Domains of operation of GFCS



WMO RCC Status Worldwide



-  Designated RCCs
-  Designated RCC-Networks
-  RCCs in Demonstration Phase
-  RCC-Networks in Demo Phase
-  RCCs Proposed
-  RCC-Networks Proposed

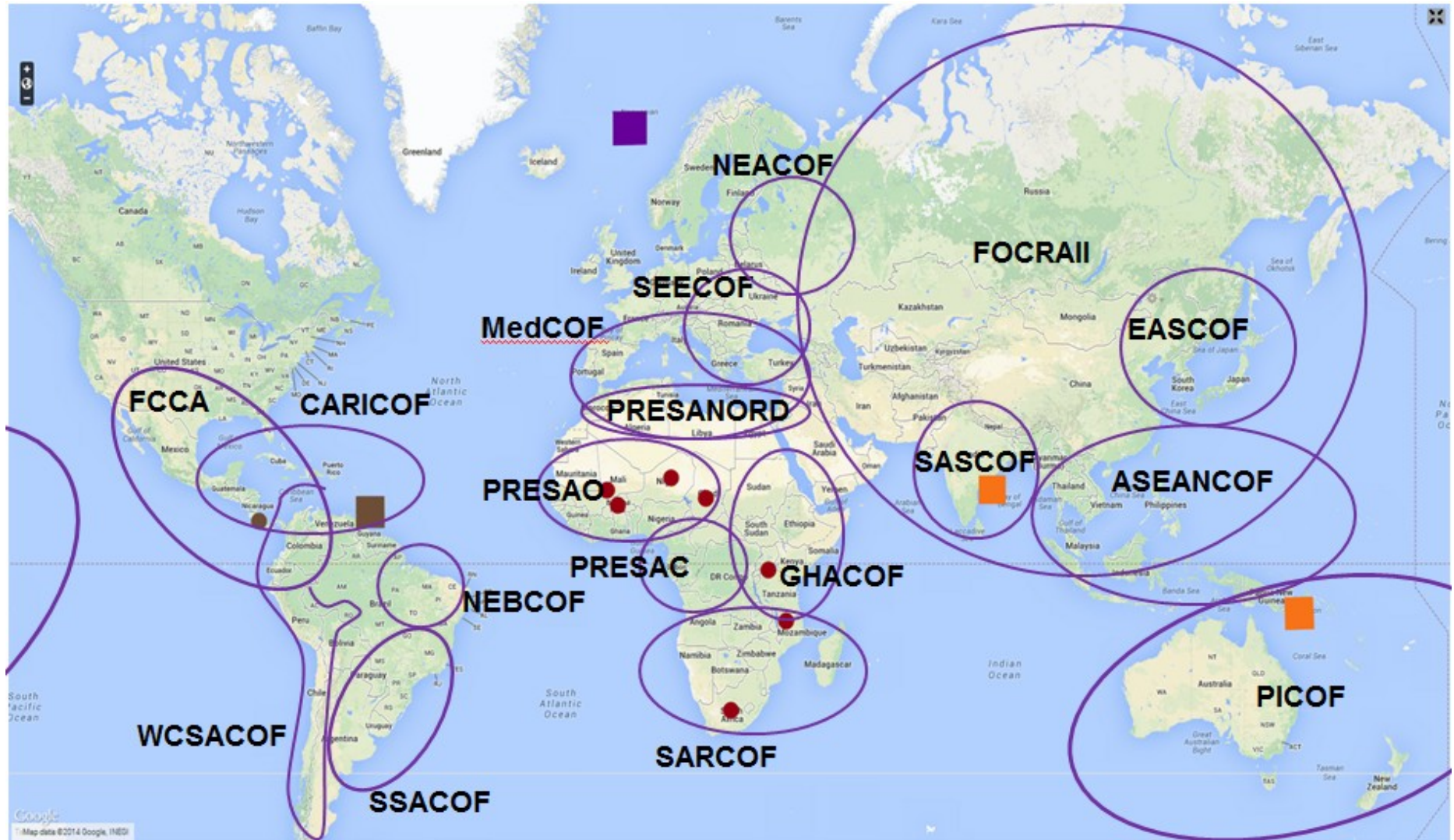
NMHSs: Underpinning the GFCS

- NMHSs **already provide climate services** based on the historical archives of observational data collected for weather services; several of them also provide operational climate prediction products, up to seasonal time scales
- NMHSs are **mandated** by the WMO Convention to observing and understanding of weather and climate and in providing meteorological (including climatological), hydrological and related services in support of relevant national needs, ensuring authenticity to their products and services
- NMHSs are structured and trained to provide **24/7 services**
- NMHSs through collaborative mechanism have established **standard practices** across the globe for weather services that can be easily extended for delivering climate services
- Users deal with weather and climate information in a seamless manner, and it greatly helps them to meet all their weather and climate information needs through a '**single window**'; NMHSs can effectively provide such a single window.
- NMHSs and their partners constitute a **large pool of technical experts** dealing with weather and climate

Potential National Mechanisms

- Frameworks for Climate Services at the national level
 - Similar to other levels of GFCS but involves practicalities and specifics for delivery of climate services at the national level through well-coordinated arrangements between the key national institutions responsible for observations, research, tailored products and expert advice as well as the user sectors.
 - 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)

GFCS activities



■ Regional Projects

● National Projects

GFCS
GLOB CLIM

○ Regional Climate Outlook Forums

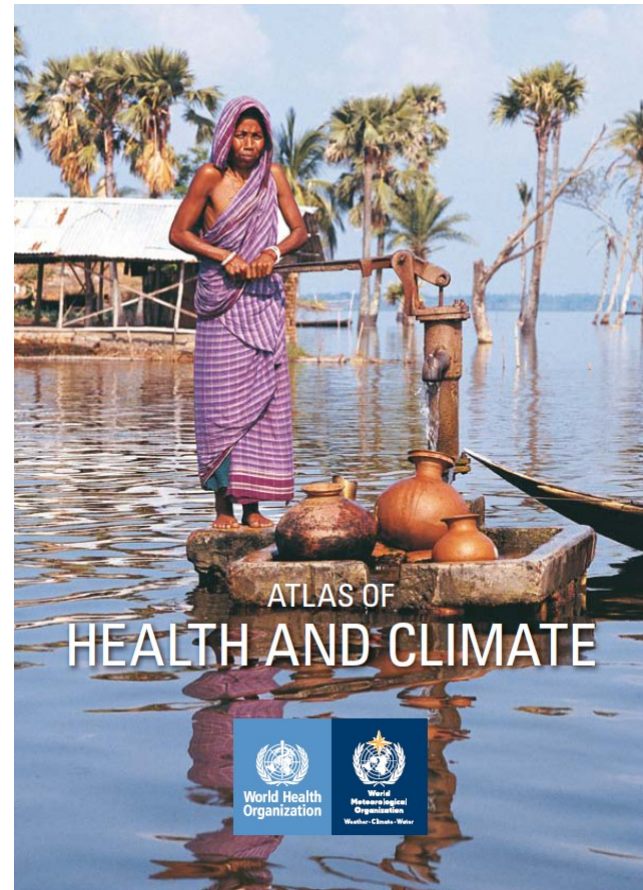
Partnerships

❖ PAC (Partners Advisory Committee):

EC, EUMETSAT, FAO, IFRC, IRENA,
IUGG, NRC, UNEP, WBCSD, WFP,
UNDP, UNITAR, WMO

❖ Joint Offices

WMO-GWP
WMO-WHO
WMO-WFP



**WHO-WMO Atlas of
Health and Climate
released in six languages**

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

- Institutionalized mechanisms for 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

Major needs

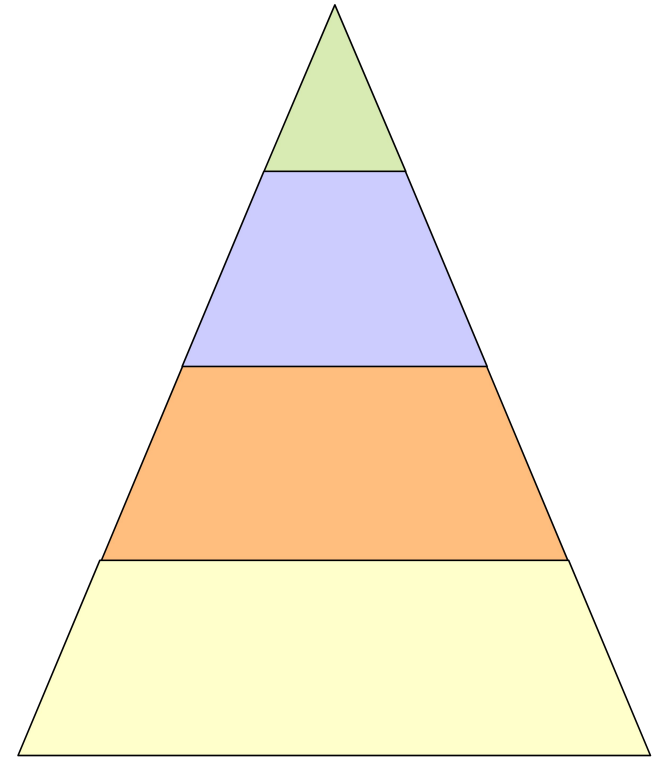
1. **Tailored** climate information products and advisory services (detailed and skilful forecasts + climate change projections + better prediction of extremes);
2. **Capacity development** of professionals and communities on production and effective application of climate services;
3. Improved, **standardized**, and quality controlled sector monitoring data that is compatible with environmental and climate information;
4. Monitoring and evaluation of the appropriate, **effective, and cost-effective use of climate information** for sector decisions;
5. **Research and prediction of sector impacts** associated with climate variability and climate change;
6. **Development and deployment of early warning systems** appropriate to the sector and user communities;
7. Sustainable **financial and technical** support;
8. **Better collaboration** with the climate community for interdisciplinary policy, practice and research.

10 Pre-requisites

- 1) Provide a **strong institutional anchorage** for the Framework for Climate Services
- 2) **Meet the demand for tailored climate service** provision in the priority climate-sensitive sectors in the country (Agriculture & Food security, Health, Disaster Risk Management, Construction/Infrastructure/ Transport sector, etc.)
- 3) **Build the capacity of the NHMS** and other technical services to jointly elaborate salient climate products and services, building on pluri-disciplinary knowledge and expertise from each sector
- 4) **Improve the Communication** / widespread distribution of Climate Services
- 5) **Diversify communication channels**, use innovative channels to broadcast (aside from TV)
- 6) Modernize and increase the **density of the national hydro-meteorological observing network**, improving capacity to meet end-user needs
- 7) Improve **collaborative climate research**, towards more salient end-user driven climate research outputs
- 8) Develop and strengthen the **capacity of end-users** to further appropriate and utilize climate services
- 9) **Sustain the newly defined Framework** for Climate Services at the national level
- 10) **Engage all national stakeholders** involved in the production, interpretation, communication and utilization of climate services in a national dialogue around climate service provision, to identify country needs and charter a course for the provision of user-tailored climate services at the national and sub-national levels.

Pre-requisites for climate services

- **Available:** at time and space scales that the user needs,
- **Dependable:** delivered regularly and on time,
- **Usable:** presented in user specific formats so that the client can fully understand,
- **Credible:** for the user to confidently apply to decision-making
- **Authentic:** entitled to be accepted by stakeholders in the given decision contexts
- **Responsive and flexible:** to the evolving user needs, and
- **Sustainable:** affordable and consistent over time.



Summing-up

✓ 3 closely-related issues:

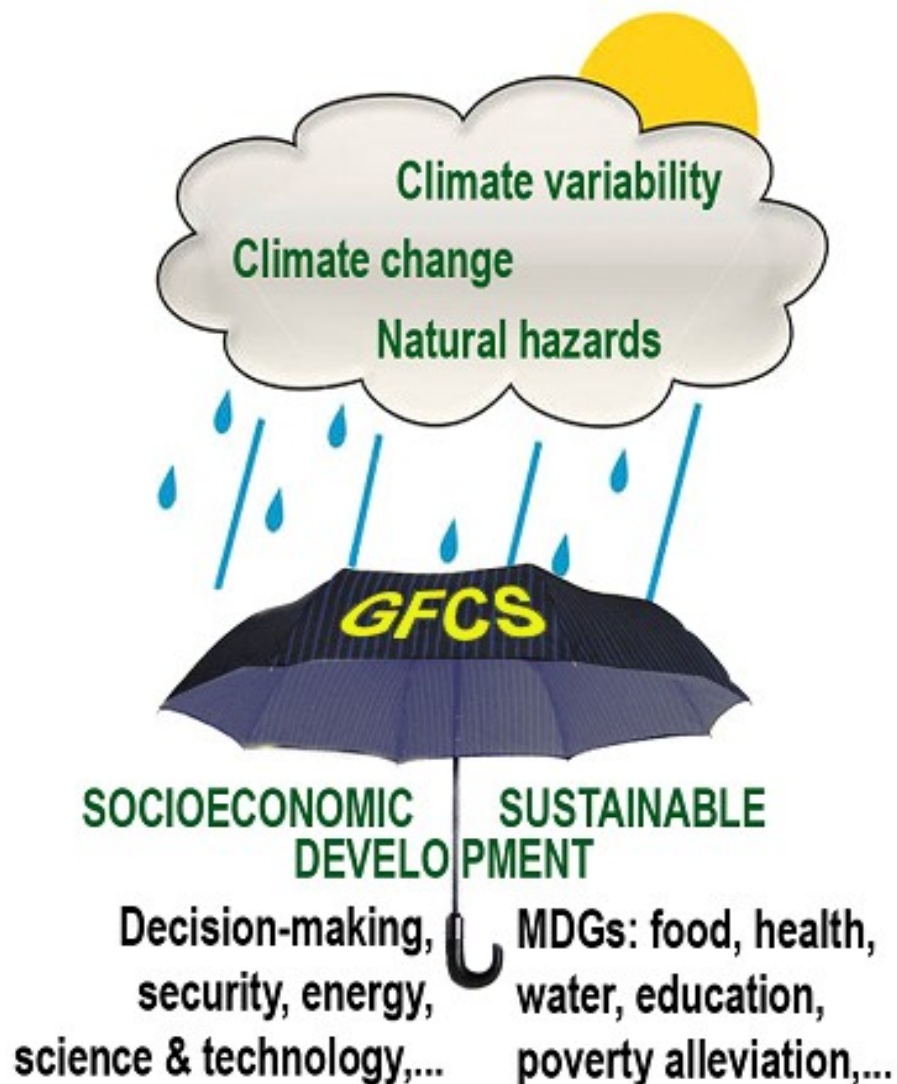
- *Adaptation to climate variability and change*
- *Disaster risk reduction*
- *Sustainable development & societal benefits*

✓ Requirements:

- *Reinforcing developing countries' adaptive capabilities*
- *Multidisciplinary partnerships across all sectors*
- *Capacity building to be seen as an investment, not an expenditure*

A key opportunity:

- **A Global Framework for Climate Services**





Thank you for your attention