



World Meteorological Organization

Weather • Climate • Water

Global Framework for Climate Services (GFCS)

Key Messages for COP 21

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Climate Prediction and Adaptation

WMO key messages for COP 21

- Mitigation
 - Monitoring of atmospheric concentrations of greenhouse gases must be sustained and strengthened
 - Climate services that support the energy sector can play a vital role in reaching a climate-neutral economy
- Adaptation
 - Climate services provide essential information for adaptation at the national and local levels and should receive commensurate support (GFCS)
- Loss and Damage
 - Monitoring and cataloging extreme events and climate trends is crucial for tracking climate-related loss and damage



Global Framework for Climate Services

- Established during the third World Climate Conference in 2009
 - Endorsed by 13 heads state or government, 81 ministers and 2,500 scientists
- Seeks to guide the development and application of science-based climate information and services in support of decision-making in climate sensitive sectors

Overview of the GFCS

- Member state governance structure
 - Inter-governmental Board on Climate Services
- Partners Advisory Committee of international organizations
- 10-year initial implementation plan designed over four years by dozens of experts, backed by initial financing

Priority areas

- ✓ **Water**
- ✓ **Disaster risk reduction**
- ✓ **Health**
- ✓ **Agriculture/food security**
- ✓ **Energy**



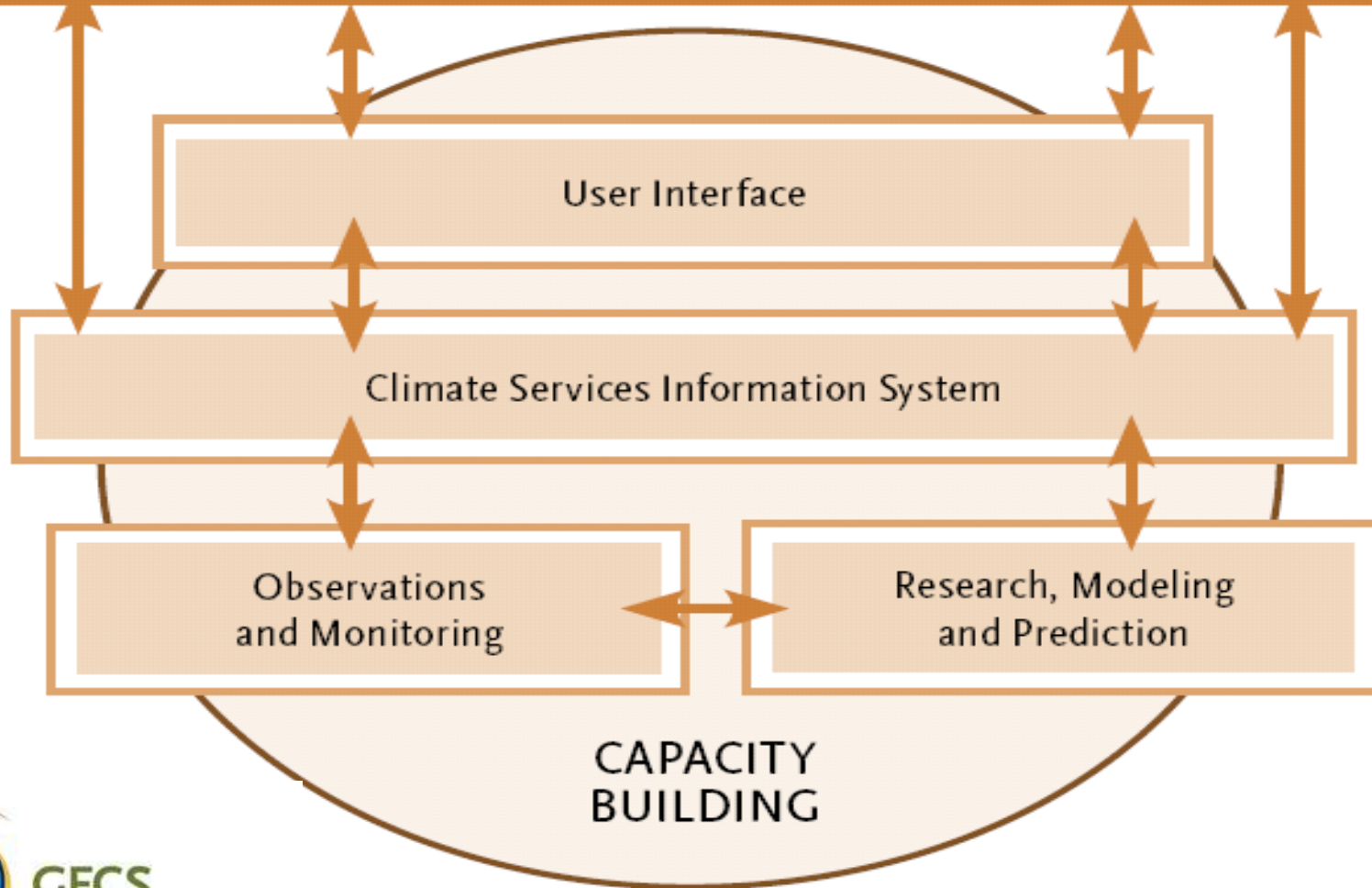
What are Climate Services?

- Information on past, present and future climate, and on its impacts on natural and human systems
 - Historical climate data sets
 - Climate monitoring
 - Climate watches
 - Monthly/Seasonal/Decadal climate predictions
 - Climate change projections
- Improved climate related outcomes
 - Access to the right products for decision making, and
 - Use them appropriately, including aspects of uncertainty



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Tailored information for decision-support to achieve higher yields, improved food security and water resource management, sustainable energy for all, reduced disaster losses, better health



GFCS Energy Priority: Focus areas

- Identification and resource assessment
- Impact assessments (including on infrastructure and the environment)
- Site selection and financing
- Operations and maintenance
- Energy integration
 - Market trading (including supply and demand forecasts) and insurance
 - Energy efficiency

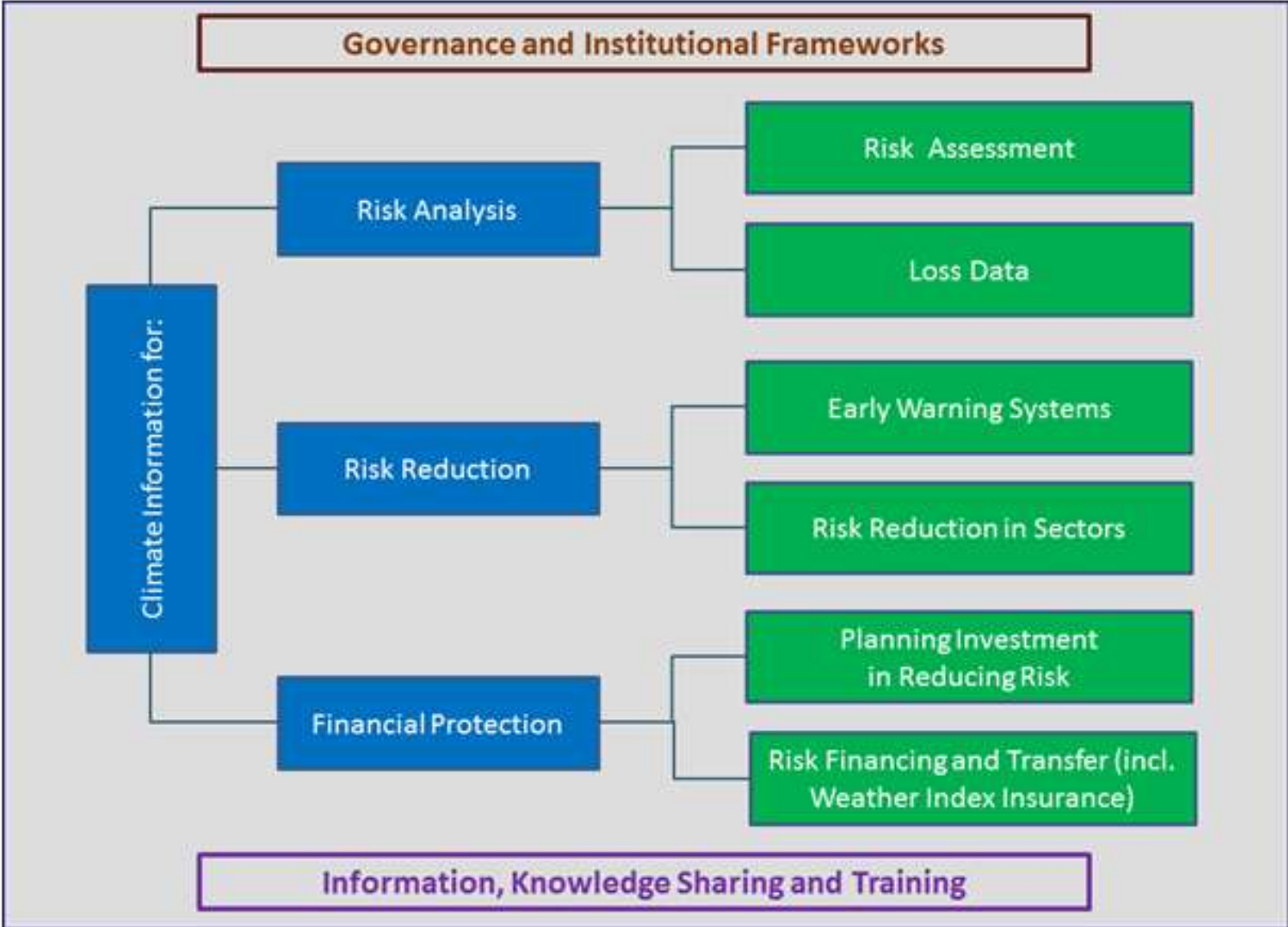
Requirements: Energy

	User Interface Platform	Climate Services Information System	Observations and Monitoring	Research Modelling and Prediction
Identification & Resource Assessment	<ul style="list-style-type: none"> • Provide information about appropriate repositories of data and products for resource and climate risk estimation 	<ul style="list-style-type: none"> • Historical datasets of relevant meteorological data (in situ, satellite-derived and model-based) and related metadata 	<ul style="list-style-type: none"> • In situ, and satellite-derived meteorological data for assessment of resources and risks 	<ul style="list-style-type: none"> • Improvement of observation instrumentation • Improvement of satellite retrieval and conversion algorithms
Impact assessments	<ul style="list-style-type: none"> • Identify relevant meteorological and climate phenomena for specific infrastructure 	<ul style="list-style-type: none"> • Historical datasets and climate analyses of extreme events 	<ul style="list-style-type: none"> • High-grade in situ data • Air quality and gas emission database 	<ul style="list-style-type: none"> • Characterization of extreme events and probabilities, return periods, probabilities of occurrence, exceedance

Generic activities: Energy

Identification & Resource Assessment	
Description	Activities in this categories aim to collect, share and assess information regarding possible siting of new energy sources. ...
Objective	To provide energy site developers with data and tools to assist with initial estimates of potentially viable energy extraction and/or production sites.
Benefits	<ul style="list-style-type: none">• Project cost reduction• Duration of project planning phase reduced• ...
Outputs	<ul style="list-style-type: none">• Historical datasets of relevant meteorological data (in situ, ...• Tailored data-sets to specific energy sectors ...• ...
Activities	<ul style="list-style-type: none">• Collect information about appropriate repository of data for resource ...• Provide understanding of quality of datasets for resource and climate ...• ...
Inputs	<ul style="list-style-type: none">• In situ, and satellite-derived meteorological data for assessment of ...• Model-based high-resolution historical meteorological data• ...
Partners	<ul style="list-style-type: none">• Energy companies• Energy development and investment companies• ...

Disaster Reduction Priority: Focus areas



Requirements: Disaster reduction

	UIP	CSIS	Obs/Mon	RMP	
Risk assessment					Capacity development
Loss data					
Early warning					
Risk reduction in sectors					
Planning investment					
Risk finance and transfer					
Capacity development					

Requirements

Implementation overview

- Strengthening of institutional infrastructure
 - Global, regional and national
- Coordination, technical advisory and planning services
 - All pillars and priority areas
- Country-level implementation
 - Uncoordinated implementation in ? countries (USD 700M in GFCS-like projects in 16)
 - Coordinated implementation with support from GFCS Partners



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Thank you for your attention

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