



**WORLD BANK GROUP**

# **E-learning Platform on Weather and Climate Services: A Value Chain Approach to Project Design**

**PPCR Technical Workshop: Enhancing User Uptake of Climate Services**

**December 9, 2014**

**The Fourth International Conference on Climate Services  
Uruguay**

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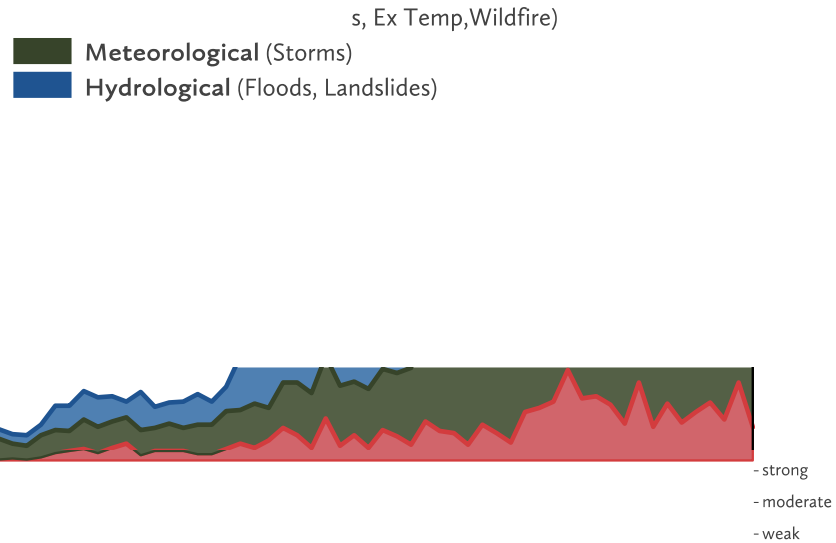
*Nathan Engle, Climate Change Specialist*

*Ana Bucher, Climate Change Specialist*

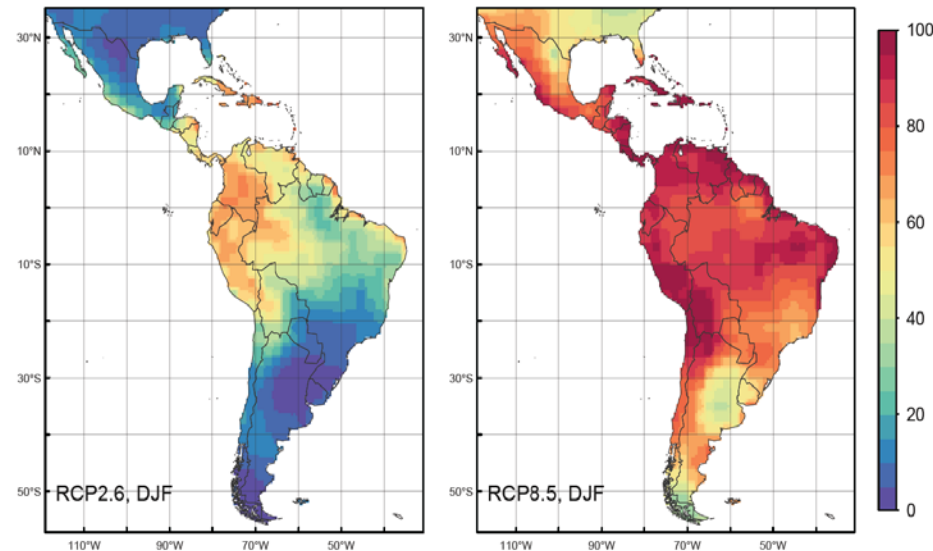
# Overview

- ❑ Climate challenge
- ❑ E-learning Platform: Weather and Climate Services
  - more than NMHS alone
  - linkages with GFCS
- ❑ Value Chain - Module preview
- ❑ Next steps
- ❑ Contribution of CS to PPCR

# Increase in climate-related disasters



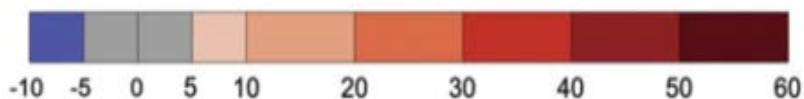
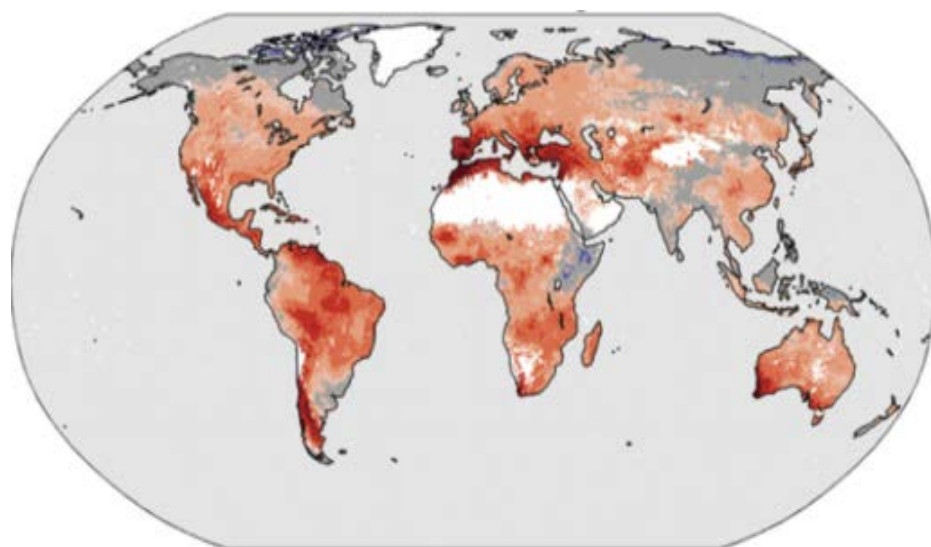
# Highly Unusual Heat Extremes in LAC



Upper panel: Number of climate-related disasters from 1960-2013 (based on the EM-DAT database). A robust increase in all types of climate-related disasters is observed. Lower panel: El Niño and La Niña events identified on the basis of the Niño 3.4 sea-surface temperature index.

Percentage of Austral summer months during which highly unusual heat waves occur in 2071-2090 for 2°C (left) and 4°C (right) warming

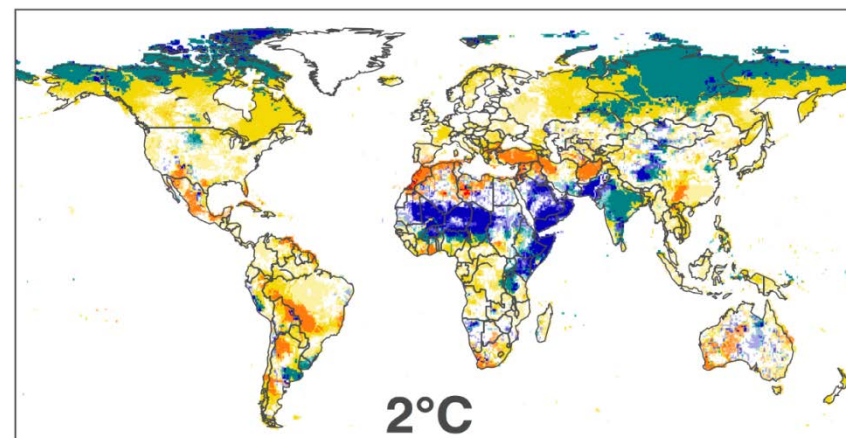
# Changes in a 4°C World



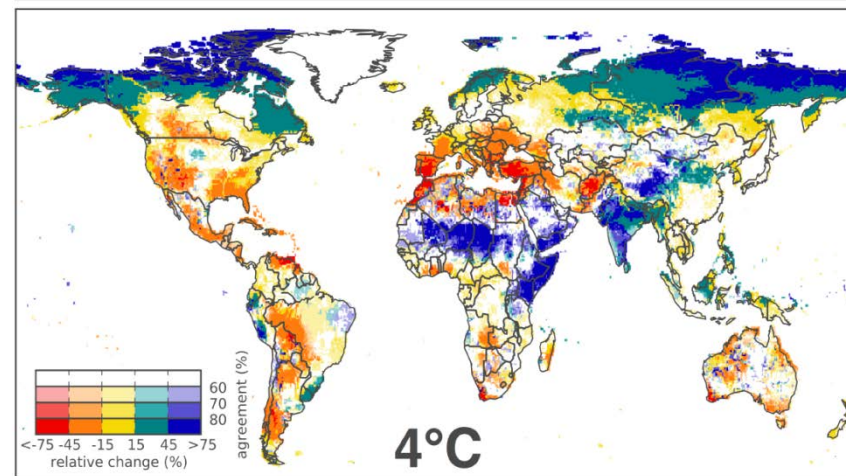
Percentile change in the occurrence of days under drought conditions by the end of the 21<sup>st</sup> century (2070–2099) in a 4°C world relative to 1976–2005.

White areas indicate hyper-arid areas.

Source: Prudhomme et al., 2013



2°C



4°C

Relative change in annual discharge for a 2°C and a 4°C world in the 2080s relative to 1986–2005

# World Bank Programs

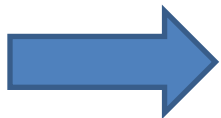
- **Under IDA:**
  - **All IDA Country Partnership Frameworks incorporate climate and disaster risk considerations** into the analysis of the country's development challenges and priorities and, when agreed with the country, incorporate such considerations in the content of the programs and the results framework.
  - **Screen all new IDA operations for short- and long term climate change and disaster risks** and, where risks exist, integrate appropriate resilience measures.
  - **Scale up support to IDA countries to develop and implement country-led, multi-sectoral plans and investments** for managing climate and disaster risk in development in **at least 25 additional IDA countries.**
- **Priority programs**
  - Build Low Carbon Resilient Cities
  - Implement Climate Smart Agriculture
  - Accelerate Energy Efficiency and Renewable Energy Programs



Success depends on effective design and delivery of climate services

# E-learning Platform Concept

- Weather and Climate Services are necessary for planning **climate resilient development**
  - Need improved understanding of how to respond to a changing climate
  - Helps reduce disaster losses on account of extreme events
- Move beyond piecemeal investments: retail to scale
- Contains 4 modules comprised of 1-3 lessons each
- Planned for launch in parallel with World Bank's Open Learning Campus User Platform



- Motivation from PPCR portfolio: 20 investments
- \$170m resources (PPCR and co-financing)

# E-learning Platform Concept

**Module 1: The Climate Services Value Chain**

*- An Introduction*

**Module 2: The Climate Services Value Chain**

*- Key Components and Inter-linkages*

**Module 3: Integrating Climate Services into  
Project Investments through the Project Cycle**

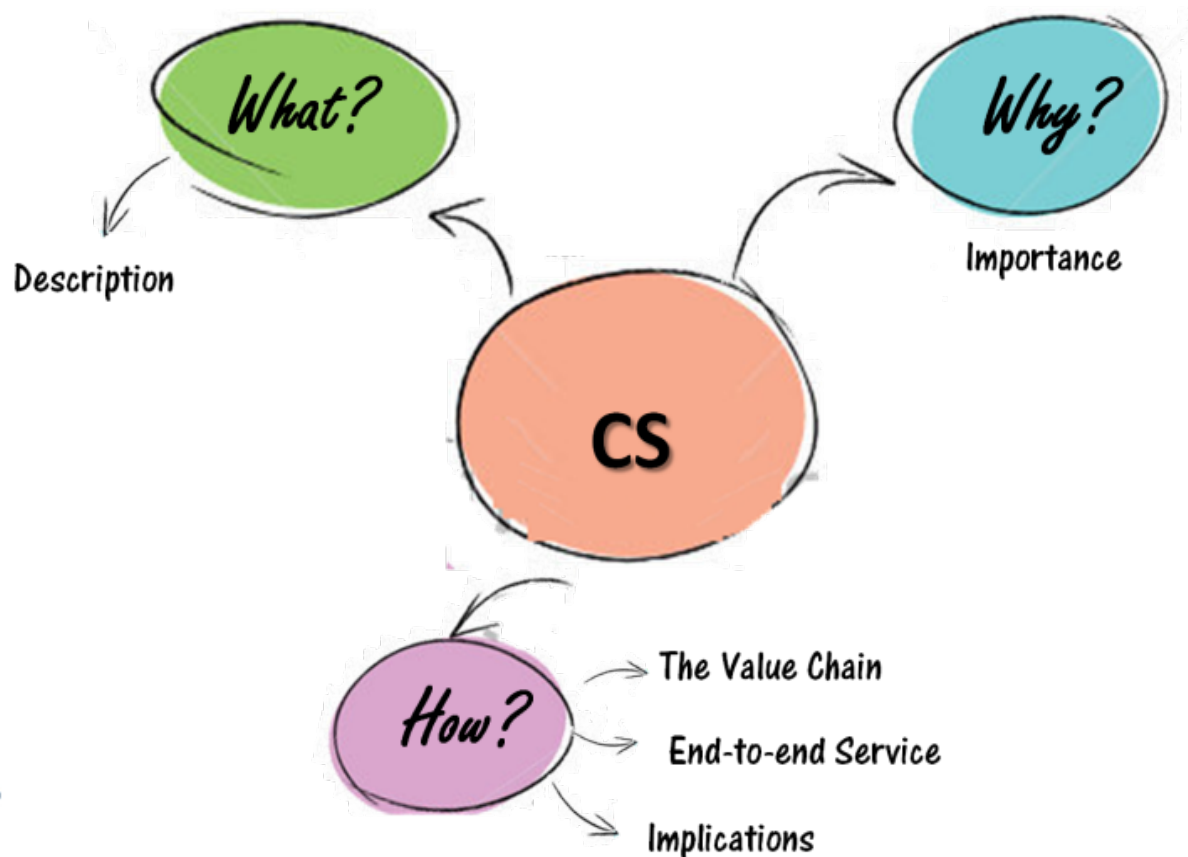
**Module 4: Practical Examples and Resources**

*- Good Practices and Interactive Exercises*

# E-learning Platform on Climate Services Value Chain Approach to Project Design

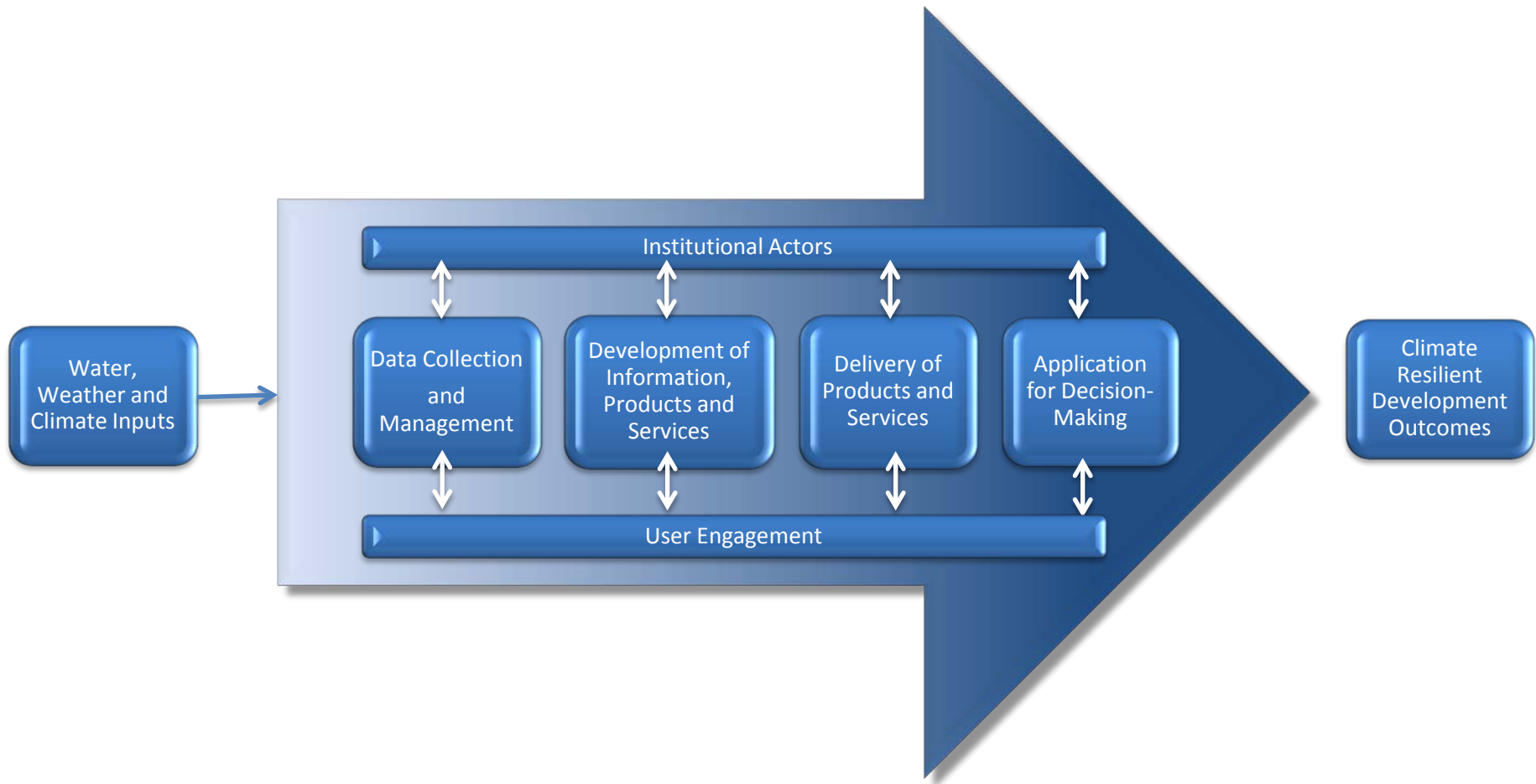
## Module 1: Introduction to Weather and Climate Services

- Understanding Weather and Climate Services and its importance is the goal of module 1.
- Answers three questions in order to grasp the complexity of climate services.

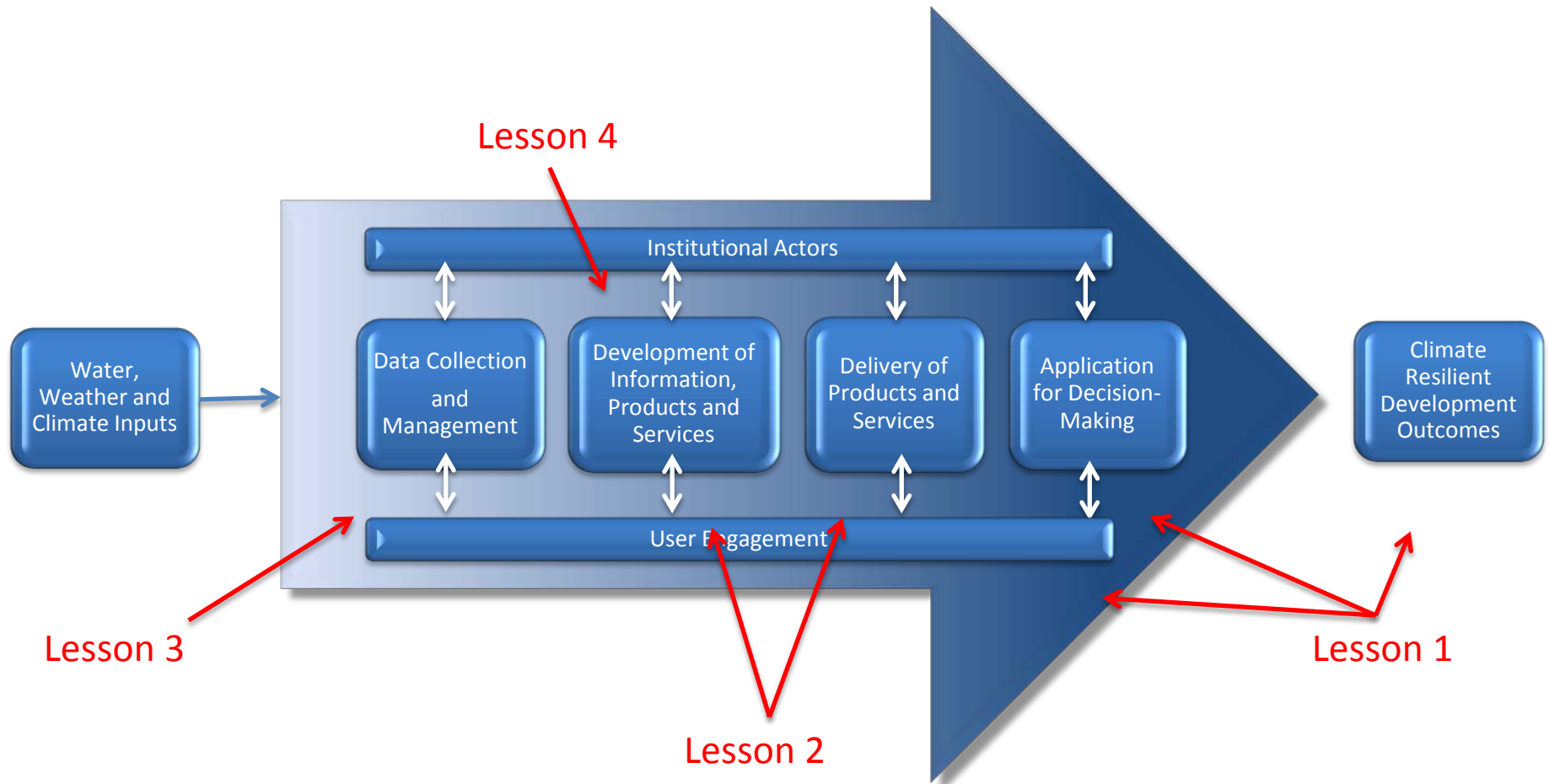




# Module 2: The Weather and Climate Services Value Chain



# Module 2: The Weather and Climate Services Value Chain

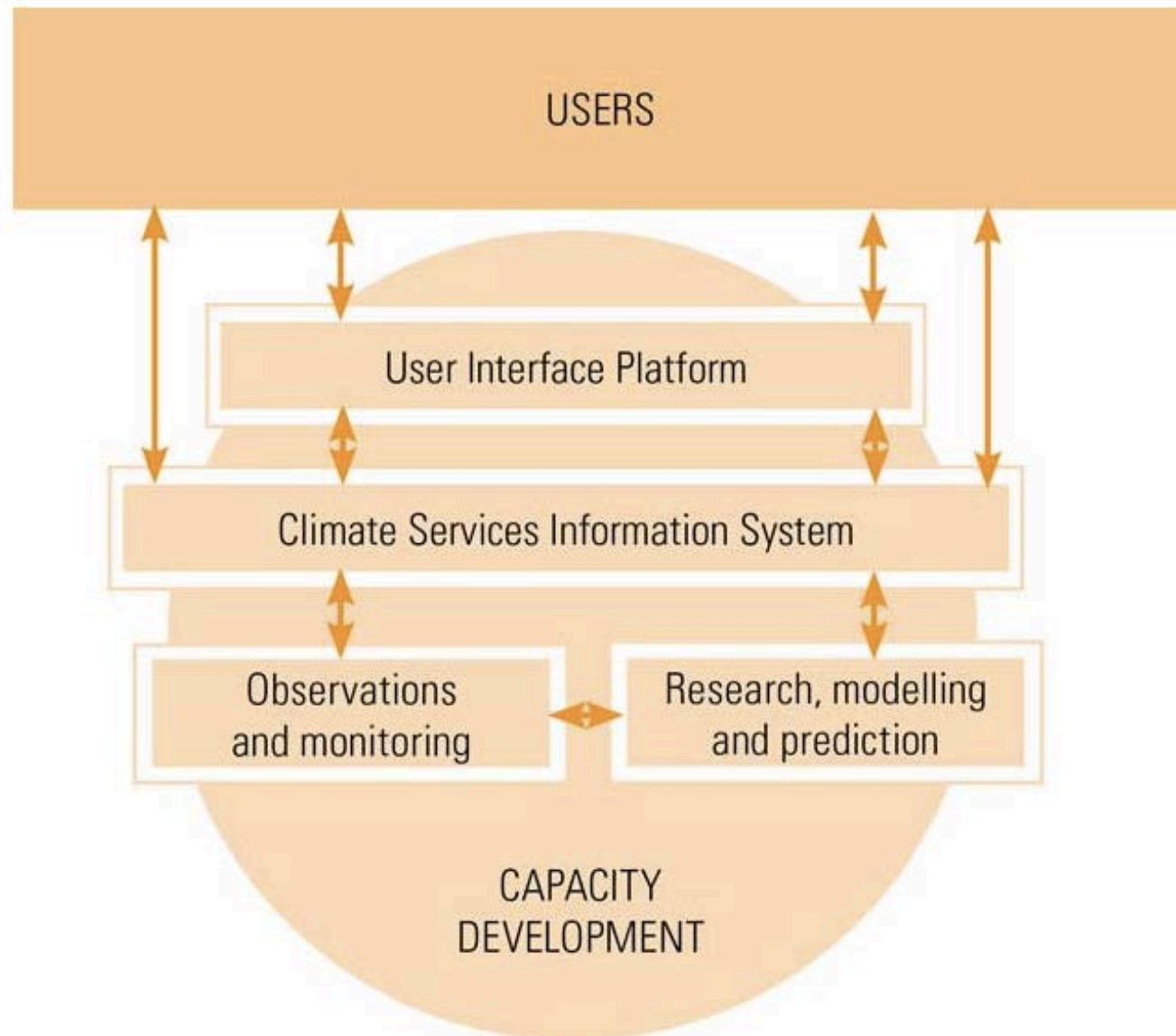


# Value Chain Approach

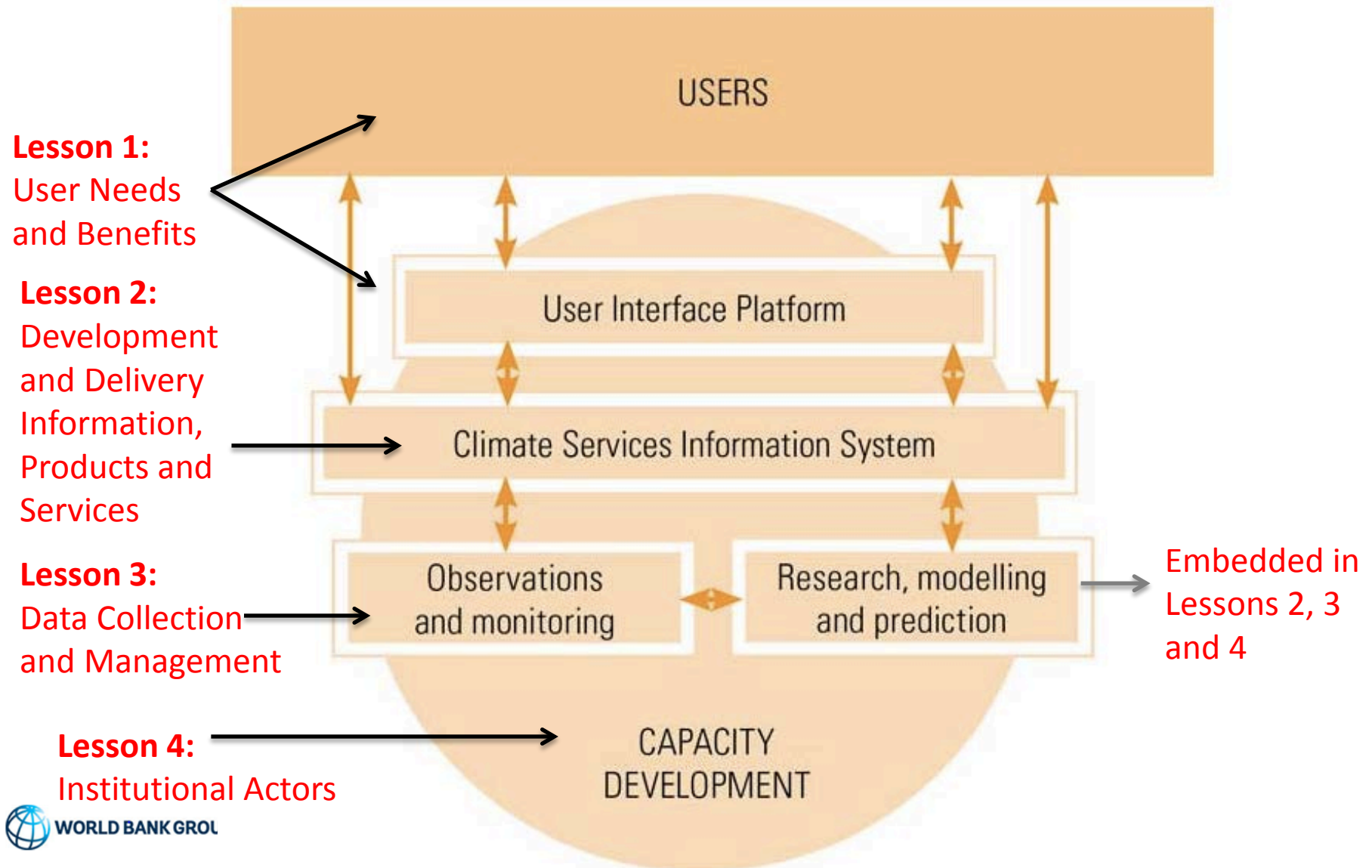
## Why weather and climate services must be seen as a value chain?

- A weakness in one aspect of this chain will have consequences with respect to the usefulness of the information, products, and services provided
- It helps to reinforce the idea that inputs in the form of water, weather and climate events must be translated into user specific products that aid climate resilient decision-making
- In the past, much investment in weather and climate services has been piecemeal, resulting in inefficiencies and a lack of sustainability in the ability of the system to perform in the medium and longer term

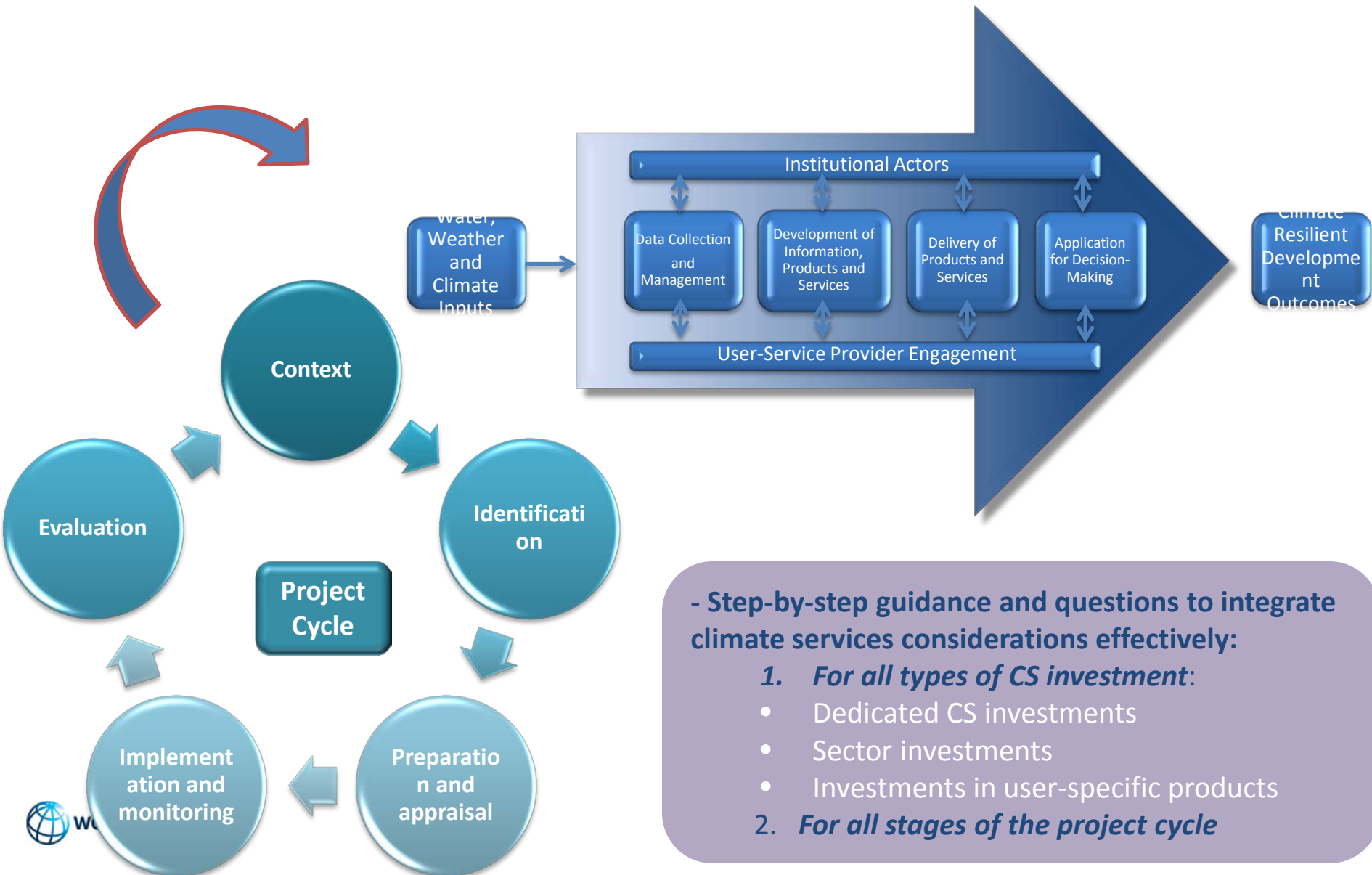
# Linkages with GFCS



# Linkages with GFCS



# Module 3: Integrating Climate Services into the Project Cycle



- Step-by-step guidance and questions to integrate climate services considerations effectively:

**1. For all types of CS investment:**

- Dedicated CS investments
- Sector investments
- Investments in user-specific products

**2. For all stages of the project cycle**

Lesson 1 - User Needs and Benefits

Putting all the pieces together: paradigmatic examples.

Click on each sector or theme to see real examples of climate services that can help decision makers, and the benefits that this provides.

User Communities	Weather & Climate Impact	Weather & Climate Service Examples of Benefits to users
<b>Northeast Brazil Drought Monitor</b>		

*Food Agriculture security*

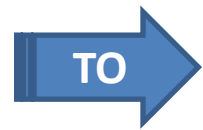


Short Term

Medium and Long Term

The role and benefits of weather and climate services with respect to drought in northeast Brazil can be clearly seen in the process of shifting from:

**A culture of reactive crisis management**



**Proactive drought risk management**

*Water resource management*



Short Term



Supported by the **development of a "Drought Monitor"**:

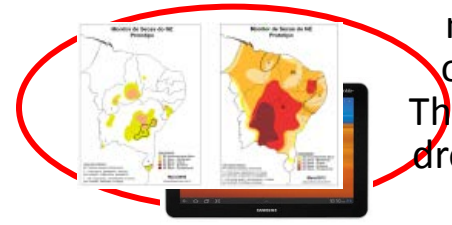
Mechanisms to better anticipate drought events and guide relief measures more efficiently, objectively, and effectively, though the implementation of drought preparedness measures

*Disaster risk management*



Short term

Med/long term



# Next steps

- Interactive online version
- Validation by Partners
- Validation with clients through prototype
- Content (case study enhancement)