

# WMO Projects Opportunities for CSF Developments

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WMO OMM

World Meteorological Organization  
Organisation météorologique mondiale

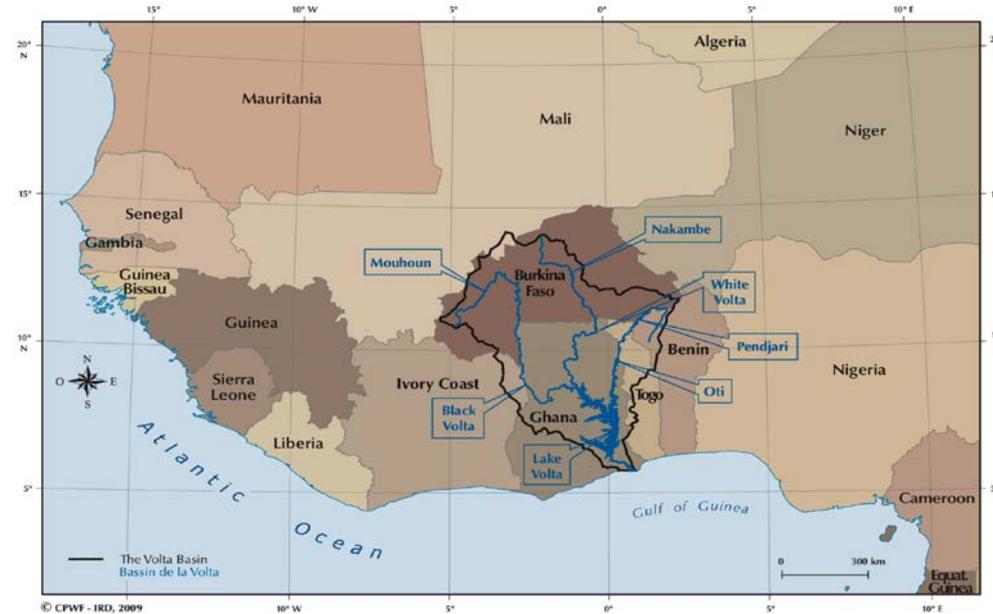
# Adaptation Fund Projects

- Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin – 7 Western Africa countries - 7.9 M USD. 2019-2022. Full project proposal in development
- Agricultural Climate Resilience Enhancement Initiative (ACREI) – On going – 6.8 M USD. Kenya, Uganda and Ethiopia. ICPAC involved. Official start in August 2018
- Enabling Adaptive Capacity of Andean Communities through improved Climate Services (ENANDES) – Chile, Colombia, Peru plus CIIFEN - 7,4 M USD – Concept note proposal in development



# Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin

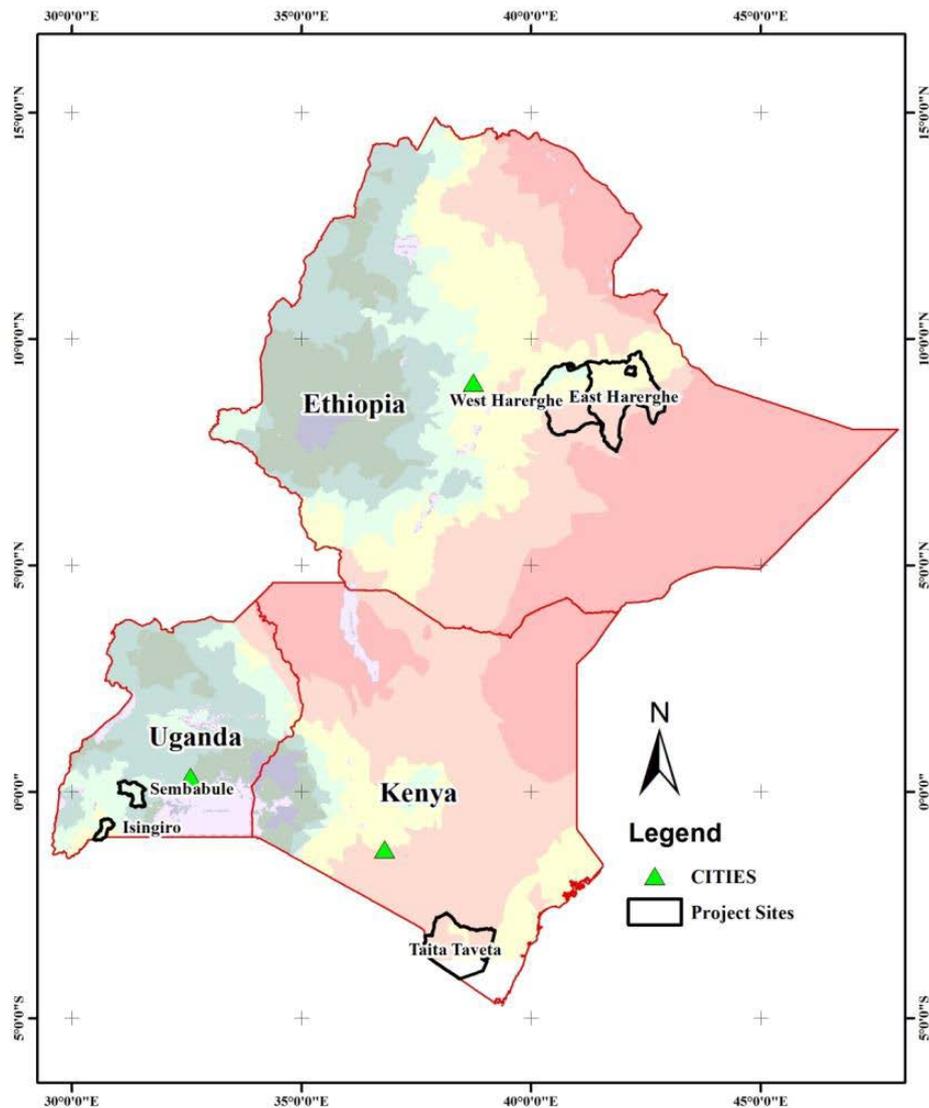
- Regional programme: Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali and Togo
- Focal Area: Disaster risk reduction and early warning systems
- Implementing Entity: WMO
- Executing Entities:
  - World Meteorological Organization
  - Global Water Partnership West Africa (GWP-WAF)
  - Volta Basin Authority (VBA)
- Amount of Financing Requested: 7 920 000 USD



- 24 millions people
- 400 000 km<sup>2</sup>
- Semi-arid to sub-humid areas
- 2 millions of people affected by floods over the last 20 years
- 9.7 millions people affected by drought in Burkina Faso over the last 30 years
- Key affected people in agricultural sector and urban areas

# Agricultural Climate Resilience Enhancement Initiative (ACREI)

- Regional programme: Ethiopia, Kenya and Uganda
- Focal Area: Food Security
- Implementing Entity: WMO
- Executing Entities:
  - Food and Agricultural Organization (FAO)
  - Inter-Governmental Authority on Development (IGAD)
- 75% of Kenya, 50% of Ethiopia and 30% of Uganda are classed as either arid or semi arid lands and the total dryland area in the Horn of Africa covers over 5 million km<sup>2</sup>
- Predominant livelihood is pastoralism and agro-pastoralism



# Agricultural Climate Resilience Enhancement Initiative (ACREI) - Components

- 1 – Community Adaptation Practice – FAO (supported by NMHS)**
- 2 – Climate proofing of extension system – FAO supported by WMO and NMHS**
- 3 – Climate informed decision making – ICPAC- WMO**
  - 3.1 Downscaled, location-specific seasonal climate forecasts and future projections regularly generated by ICPAC and participating NMHSs
  - 3.2 An efficient agro-climatic advisory and feedback mechanism strengthened
  - 3.3 Agro-climatic advisories appropriately packaged and timely disseminated
  - 3.4 Evidence based climate information feeds into policy dialogues in the region

# Enabling Adaptive Capacity of Andean Communities through improved Climate Services – ENANDES

**Regional programme: Chile, Colombia, Peru plus CIIFEN**

**Focal Area: Disaster risk reduction and early warning systems**

**Implementing Entity: WMO**

**Executing Entities:**

- NMHS Colombia (IDEAM)
- NMHS Chile (DMC)
- NMHS Peru (SENAMHI)
- CIIFEN

**Reducing vulnerability and strengthen resilience of Andean communities to climate variability and change**

**Increasing the ability of the countries to better manage water for more efficient cropping, irrigation and power generation, including improved adaptation to weather and climate extremes.**



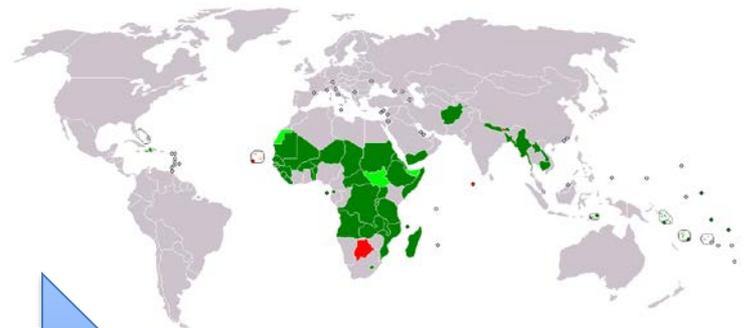
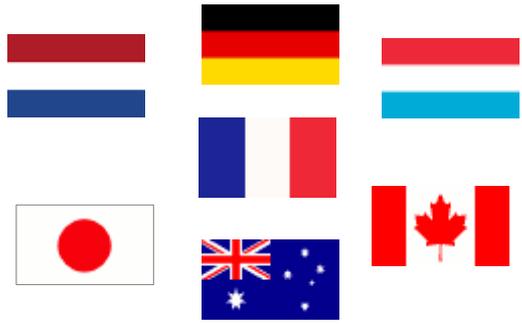
Source: SENAMHI-Peru  
official web  
Project CLIMANDES

# CREWS Climate Risk Early Warning Systems

Multi-donor trust fund



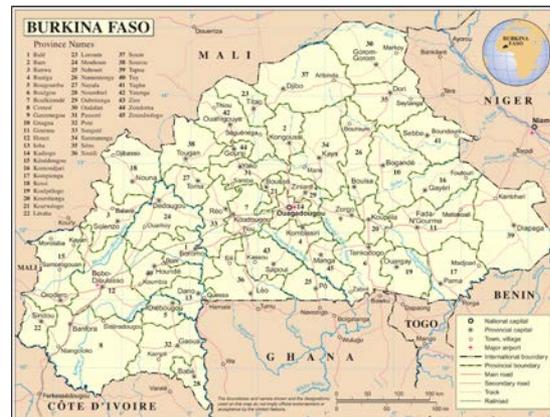
**CREWS**  
COALITION  
GROUP



**LDCs & SIDS**



The goal is to mobilize and invest more than US\$30 million by July 2017 and US\$100 million by 2020.



# Burkina Faso

Météo France

**Component A: Basic systems.**  
observations, databases,  
numerical forecasts,  
monitoring and analysis

- i) **Assessment of observation network processes and needs**
- ii) **Data base improvement**
- iii) **Short term forecast capabilities** for severe weather and flood early warning
- iv) **Seasonal to sub-seasonal forecasts** for early warning to farmers and the agriculture sector
- v) **Analysis and nowcasting tools**

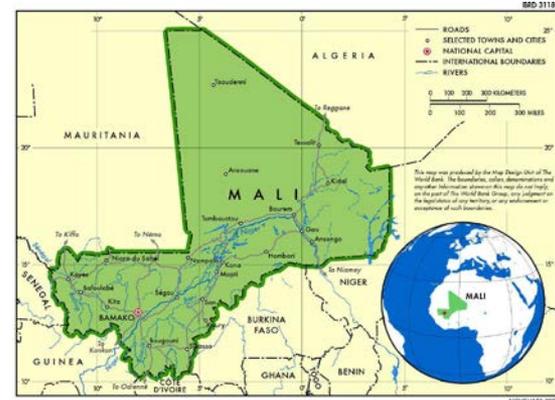
**Component B: Early warning system development.** Weather and climate information translated into EW alerts and agriculture advisories in an understandable format co-produced with the user stakeholders

- (i) **Risk information and forecast products for severe weather and flood early warning**
- (ii) **Risk information and forecast products for agriculture and food security**

**Component D: Management.**

**Component C: Institutional strengthening.**

- (i) **Long term development plan for DGM**



# MALI

**Component A. Strengthening institutional, partnerships and regulatory frameworks and technical capacity building**

**i) Strengthening the institutional and regulatory framework for hydrometeorological and warning services:**

**a) Operational procedures for rapid warning and response,**

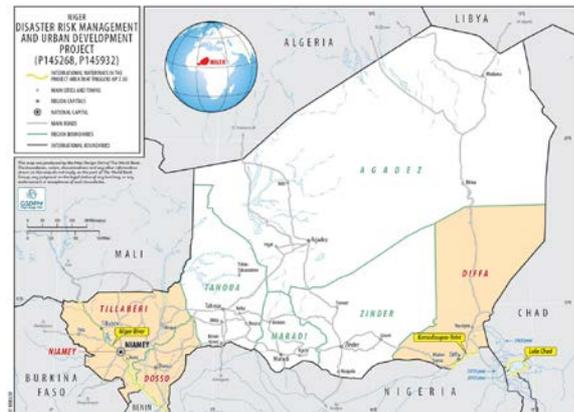
**b) Protocols for information exchange among institutions,**

**c) Strengthening of tools for the collection, management, archiving, analysis and sharing of information;**

**ii) Capacity building and staff training (including operational training).**

**Component B. Provision of basic warning support services in accordance with the National Framework for Climate Services**

- (i) Development of flood and drought forecasting and warning services for specific institutional users**
- (ii) Provision of public services (information and warnings): (i) bidirectional communication and (ii) feedback mechanisms**
- (iii) Strengthen citizen engagement and monitoring of end-user satisfaction, based on needs surveys and mechanisms for user feedback on services**
- (iv) Community training and simulations on product use and capacity building, with a gender approach**



# NIGER

**Component A. Strengthening institutional, partnerships and regulatory frameworks and technical capacity building**

**i) Strengthening the institutional and regulatory framework** for hydrometeorological and warning services:

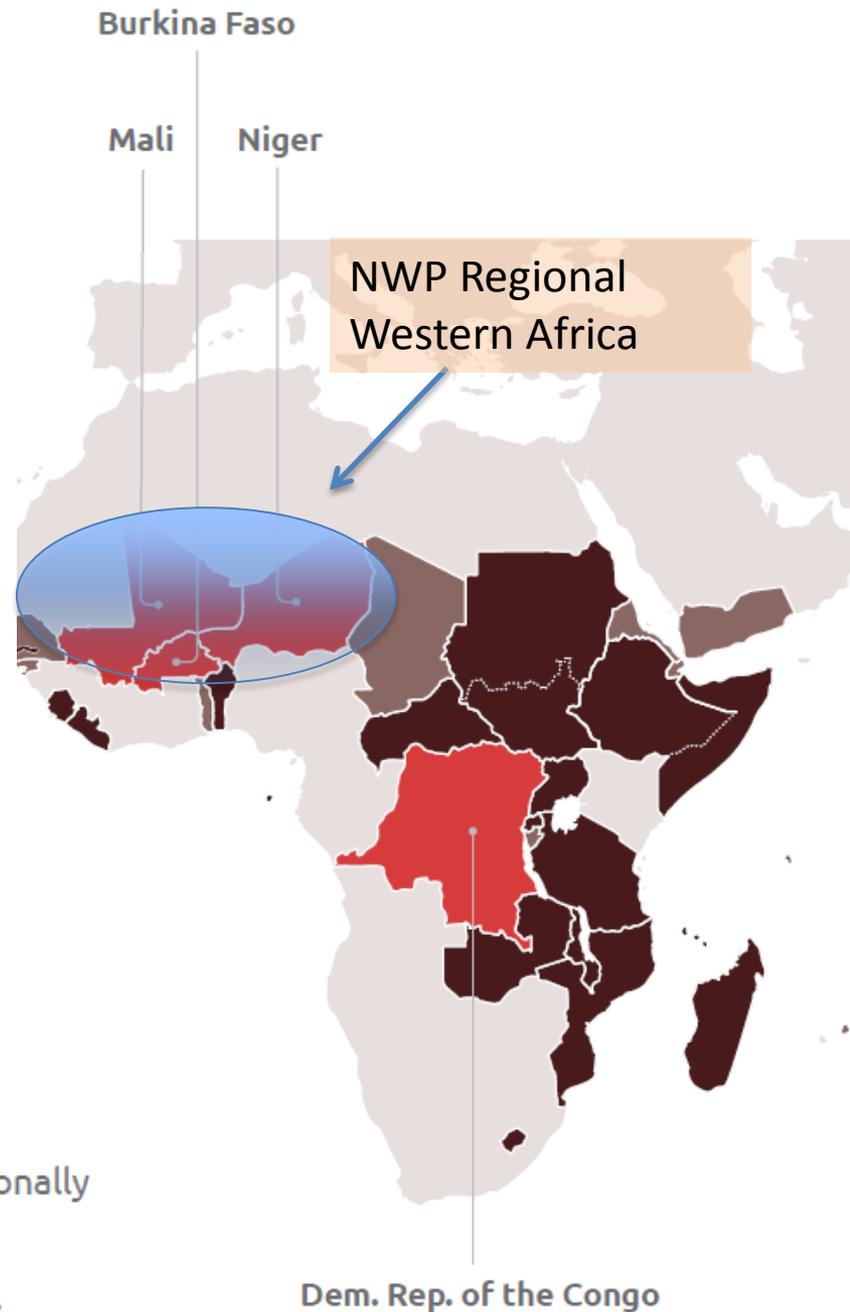
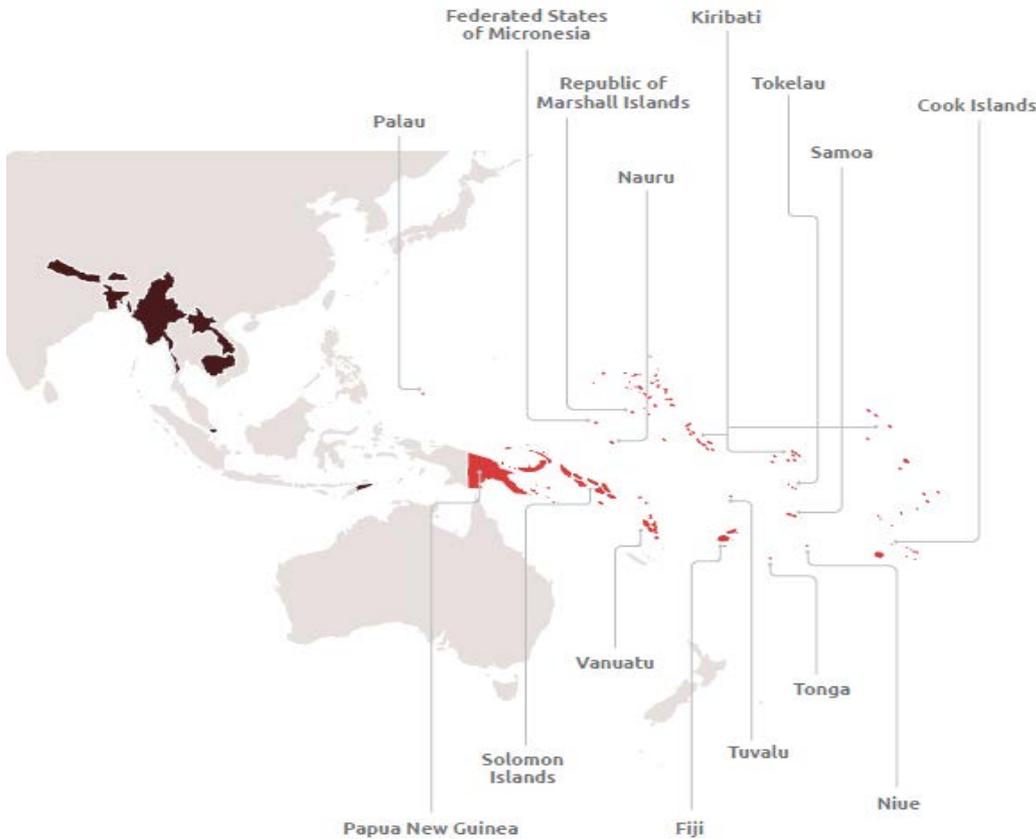
- a)** Operational procedures for rapid warning and response,
- b)** Protocols for information exchange among institutions,
- c)** Strengthening of tools for the collection, management, archiving, analysis and sharing of information;

**ii) Capacity building and staff training** (including operational training).

**Component B. Provision of basic warning support services in accordance with the National Framework for Climate Services**

- (i) Identification of requirements** of decision-makers and the population at risk for warning of extreme events (rainfall, flooding, storms and sandstorms, bush fires, heat waves, etc.);
- (ii) Design, production, dissemination of warning services and accurate and relevant information bulletins** (forecasting, monitoring, risk assessments and other analytical products);
- (iii) Support for the coordination of the emergency response** (contingency plans, ORSEC emergency response plans, PCS municipal safeguard plans) including **community training**
- (iv) Strengthen citizen engagement and monitoring of end-user satisfaction**, based on needs surveys and mechanisms for user feedback on services

# CREWS Projects, end 2017



## Map Legend\*

- Receiving CREWS support (Total 19 LDCs and SIDS)
- Identified early warning systems as priority in Intended Nationally Determined Contribution (INDC) or Nationally Determined Contribution (NDC) (Total 40 LDCs and SIDS)
- Indirect reference to early warning systems in INDC or NDC (e.g., disaster risk reduction as adaptation priority) (Total 26 LDCs and SIDS)

# Intra-ACP Climate Services and related applications

## **EU African Caribbean and Pacific support to GFCS.**

Goal (EUR 85 million / 6 years) is to support the climate information services value chain with technical assistance, financial assistance, infrastructure and capacity building to improve wide access and use of climate information, and to enable and encourage the generation and use of climate services and applications for decision making processes at all levels.

## **Implementation: *Direct management***

WMO, Indian Ocean Commission (IOC) , Southern Africa Development Community (SADC) , Intergovernmental Authority on Development (IGAD) AGRHYMET Regional Centre and Caribbean Institute for Meteorology and Hydrology (CIMH)

## ***Procurement (direct management):***

Administrative arrangement with the EC-Joint Research Centre (JRC)

# Intra-ACP Climate Services and related applications

The actions will be implemented by the ACP Secretariat, the UN specialised agency World Meteorological Organization (WMO) and the European Commission's Joint Research Centre (JRC).

Main beneficiaries: Regional Climate Centres (RCCs), the African Union Commission, the African Regional Economic Communities, the Caribbean Institute for Meteorology and Hydrology (CIMH) and the Secretariat of the Pacific Regional Environment Programme (SPREP).

# Intra-ACP Climate Services and related applications

main expected results are:

Output 1) **Interaction between** the users, **researchers** and climate services providers in ACP regions is structured;

Output 2) **Provision of climate services** at Regional and National level is effectively guaranteed and secured;

Output 3) Access to Climate Information is improved;

Output 4) Capacity of ACP regions is enhanced to generate and apply climate information and products relevant to their particular concerns;

Output 5) Climate-informed decision-making is enhanced and climate services are mainstreamed into policy processes at regional and national levels.

## EU-ACP Links to COPERNICUS and GMES

COPERNICUS programme. Open data and product availability and accessibility. Strong component of capacity building. To ensure all the RCCs will benefit from these strategic investments.

Expected Cooperation and much appreciated partnership of the climate services ACP-Programme with the GMES (Global Monitoring for Environment and Security) & Africa programme.

Heritage of the MESA in Africa and other similar programme in the Caribbean and South Pacific Regions.

# Green Climate Fund new approach

## Climate rationale

- Climate rationale has been established as a foundational piece of GCF Operational policies
- The climate rationale provides the scientific underpinning for evidence-based climate action decision making and the theory of change of all activities funded by the GCF
- WMO-GCF agreement to provide Climate rationale proposal to be shown and practiced through 5 countries/projects



# Green Climate Fund new approach

## Climate rationale

Climate rationale  
Robust climate  
evidence base for  
decision making

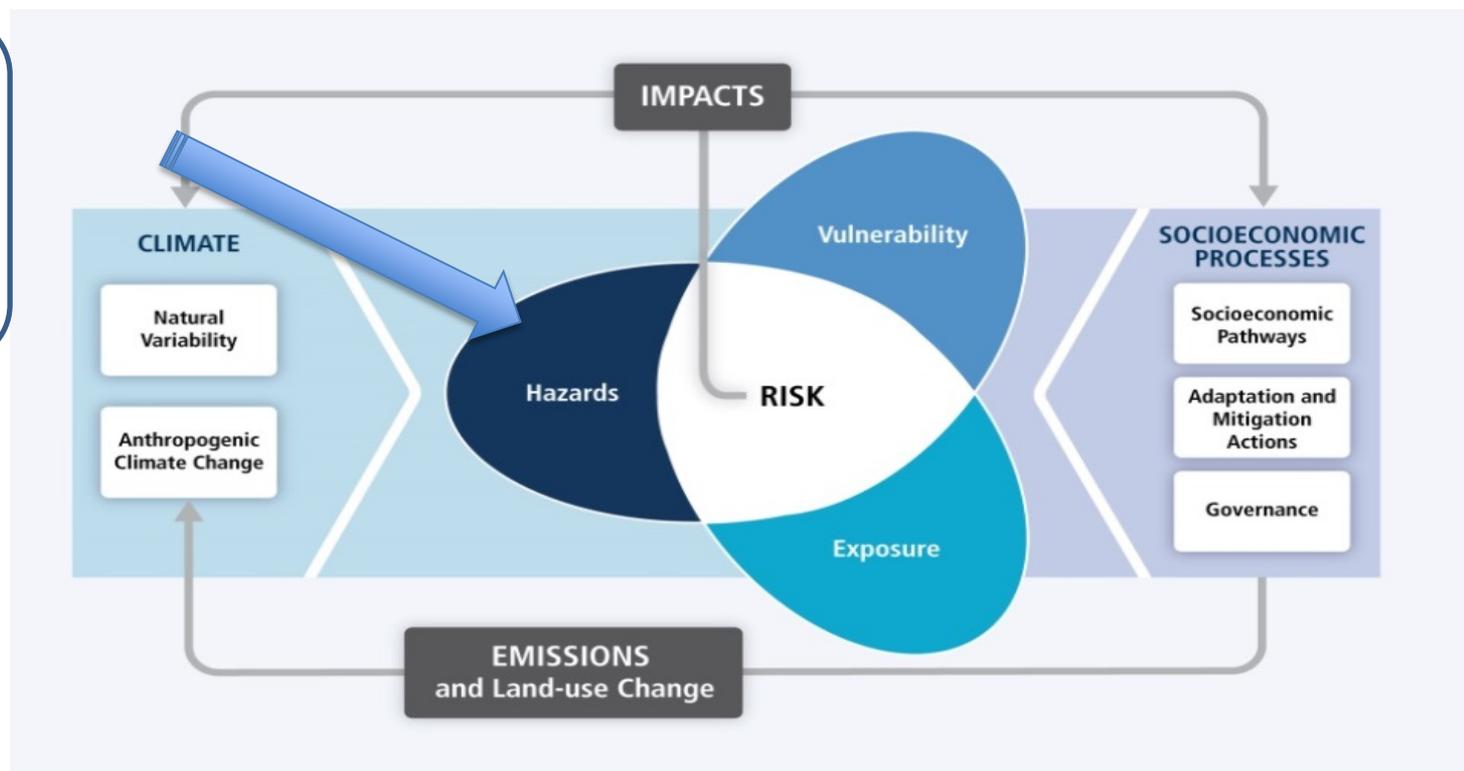


Figure 3. Role of the climate rationale in the climate change decision making.

Source. Adapted from: IPCC, 2014: Summary for policymakers. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

# USAID funded/supported projects

- Climate Services for Increased Resilience in the Sahel 2017-2018
- Support to ACMAD, Burkina Faso, Niger, Senegal

Outcome 1: Better regional support through the enhanced development, delivery and use of tailored climate information products at the regional level for climate-sensitive sectors. Support to ACMAD activities as RCC

Outcome 2: Increased resilience through enhanced decision making processes at the national level through integration of climate information into decision making in climate sensitive sectors. Training users at National level. Improved service delivery.

Outcome 3: Enhanced cooperation in the region for the development and use of climate products and services. Regional training tools, lessons learnt, training of trainers. ACMAD.

## Other projects

- Korea
- Germany (IKI)
- Australia
- UKMO
- Norway
- Switzerland



Thank you  
Merci  
Muchas gracias  
Moltes gràcies



WMO OMM

World Meteorological Organization  
Organisation météorologique mondiale