



# PROPOSAL FOR PPCR-BOLIVIA PHASE 1

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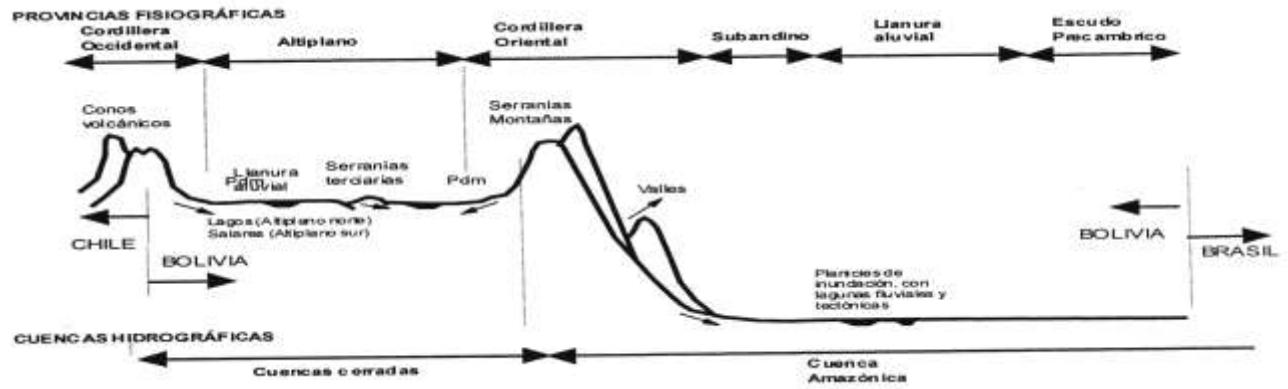
**Responsible of NAPA**

**PLURINATIONAL STATE OF BOLIVIA**

**Manila, Filipina – Marzo,2010**



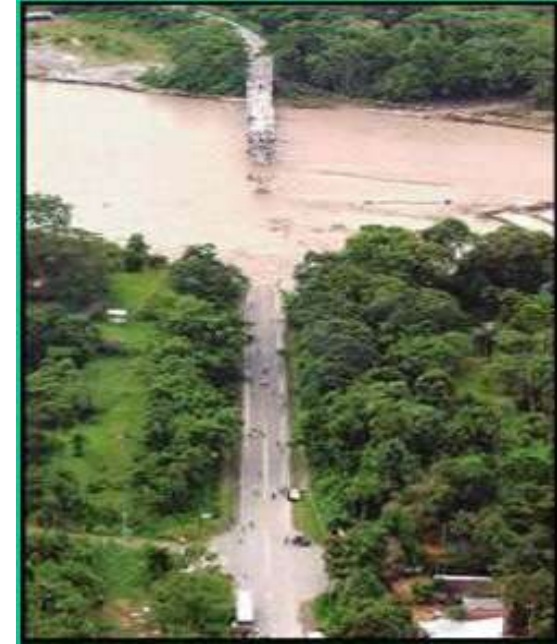
# GEOGRAPHIC LOCATION



# IMPACTS OF CLIMATE CHANGE ON BOLIVIA

## EXTREME EVENTS INTENSIFIED BY CLIMATE CHANGE

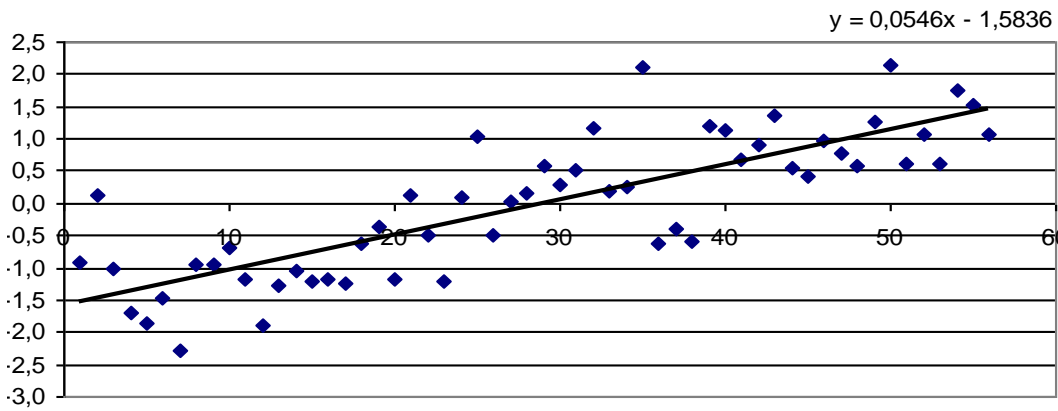
- **Flood:** Increase in frequency and intensity of precipitations, has increased flood risk. In the low lands areas, during extreme precipitation events, annual average river runoff has increased by 5-40%.
- **Drought:** Aggravated by climate change, more intense and longer droughts have been observed in around 40% of Bolivian territory, home to 70% of the population and the poorest.



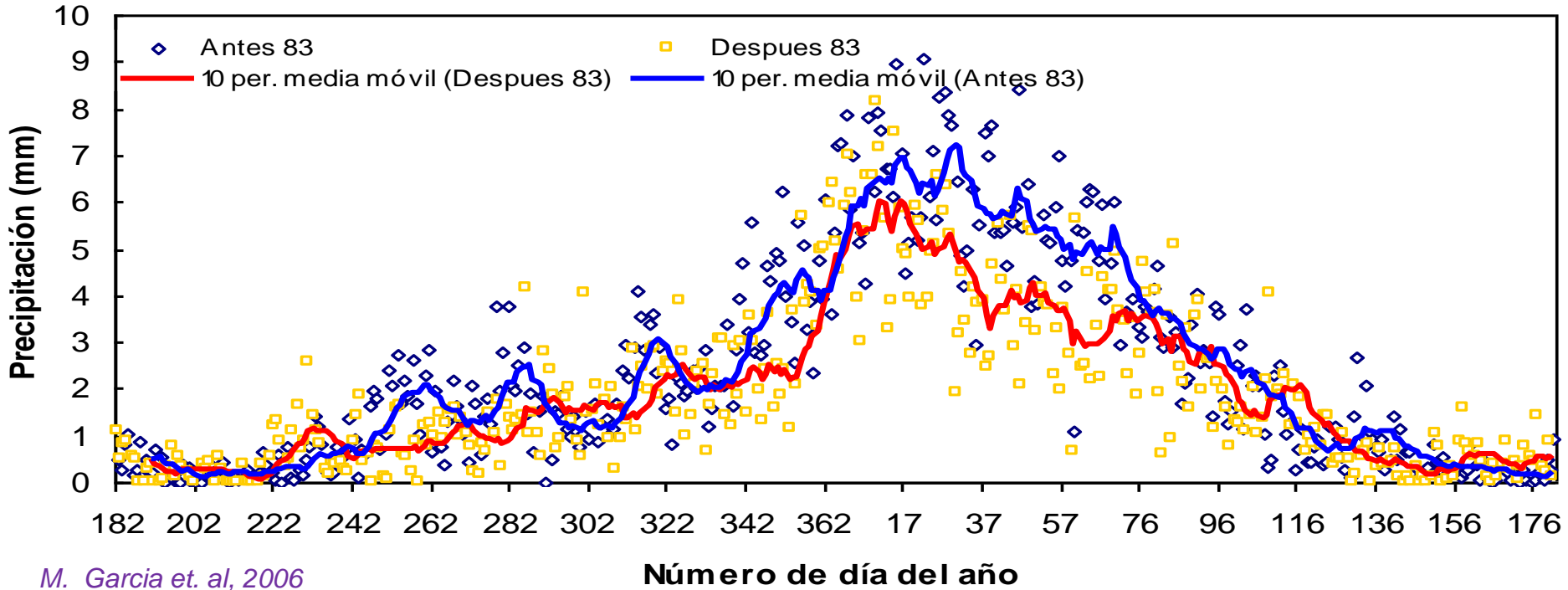
# IMPACTS OF GRADUAL CLIMATE CHANGE

- Climate Patterns Effects

ANALISIS DE TENDENCIAS ANUAL  
DE TEMPERATURA MAXIMA MEDIA (LINEAL)



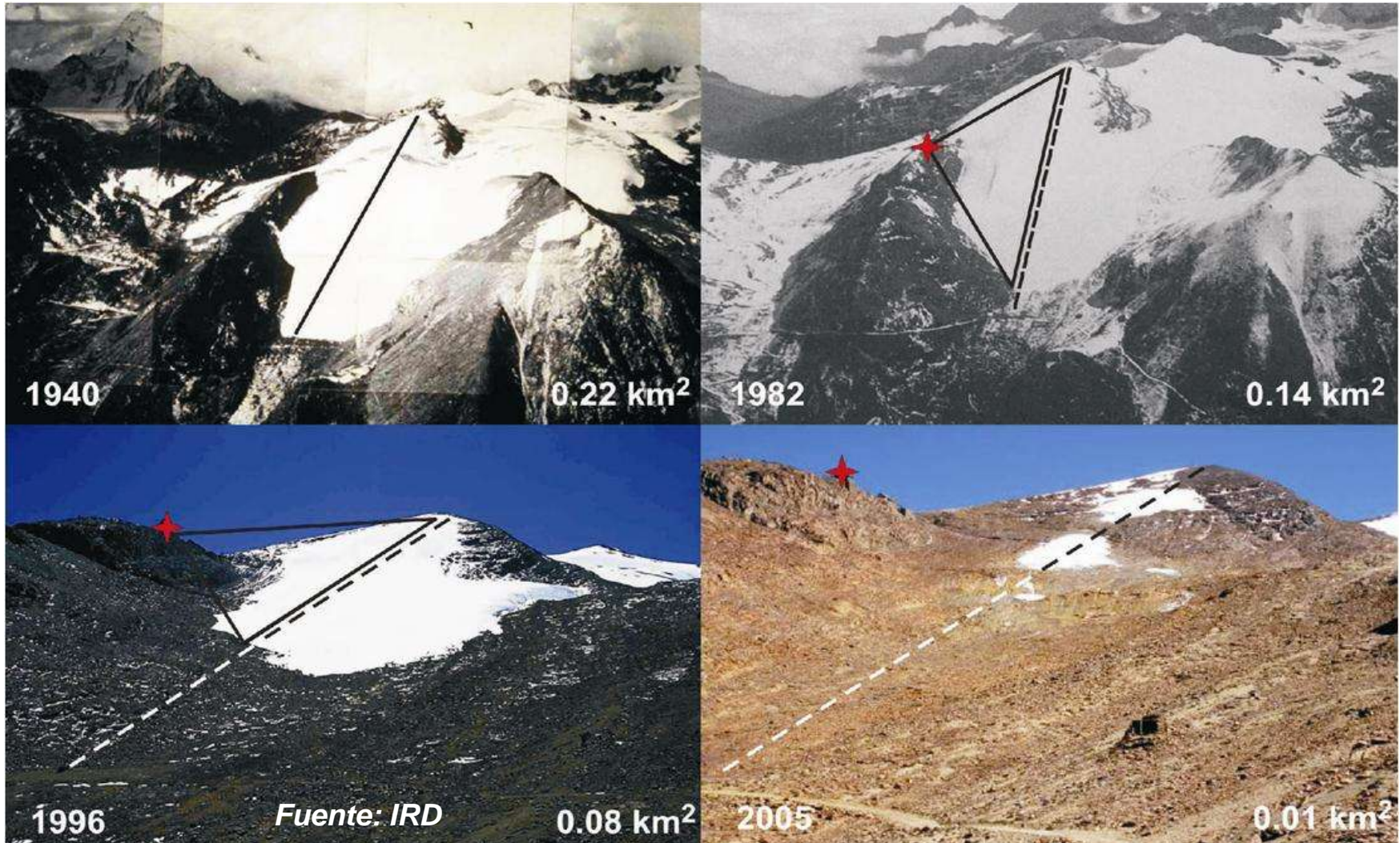
Estación Tarija - SENAMHI, 2006



M. Garcia et. al, 2006

# Impacts of climate change on Bolivia

- **Glaciers:** Retreat has accelerated compromising water supplies, food security and potentially hydropower generation. glacier has retreated 35%-45% in surface in the last 50 years

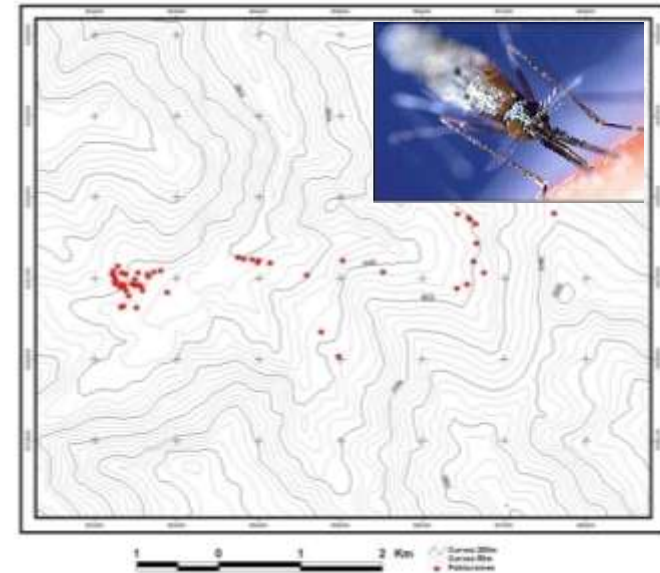


# IMPACTS CLIMATE CHANGE ON BOLIVIA

## IMPACTS OF GRADUAL CLIMATE CHANGE

- **Health:** Malaria, dengue and other vector-borne diseases, show a growing trend, extent and altitude.

During ENSO, cases of Acute respiratory disease, Diarrhea, skin diseases and musculoskeletal were treated. (PAHO/WHO DANA)



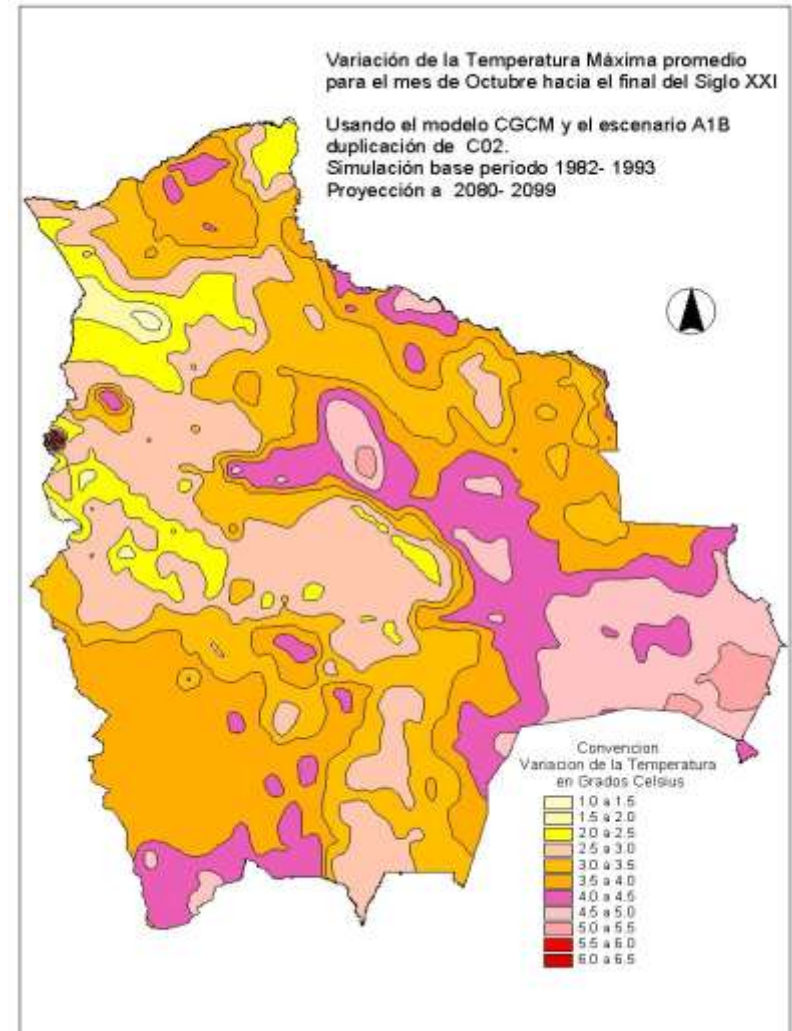
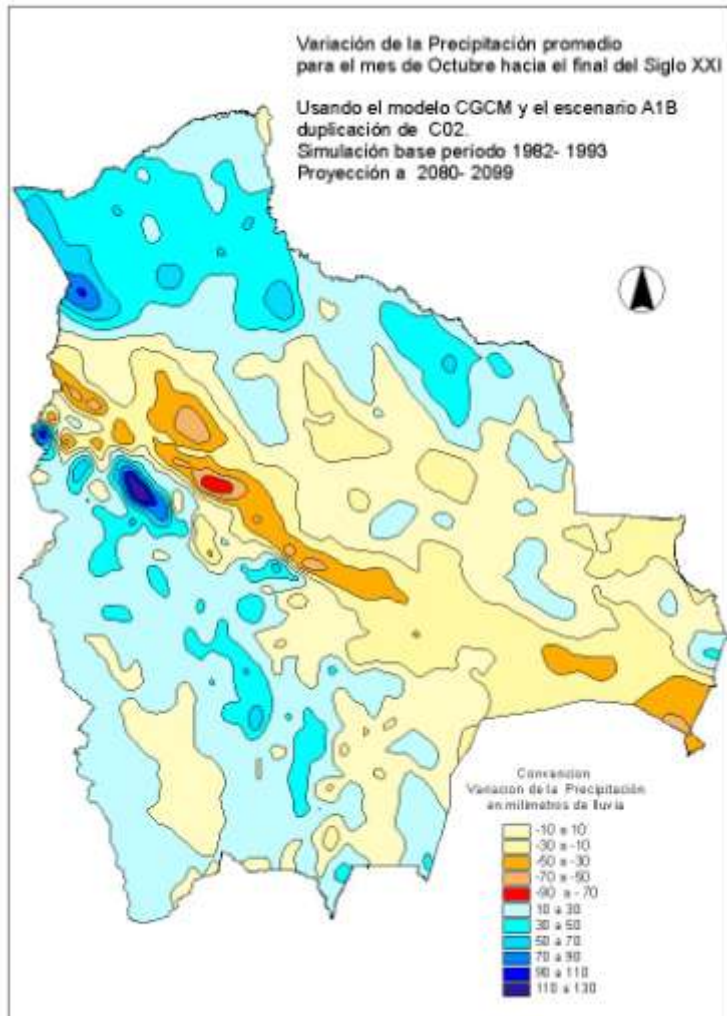
- **Food Security:** Lost or reduction of crops production

# Impacts of climate change on Bolivia

- **Survival of indigenous peoples:** The Uru Chipaya Indigenous Peoples, a 2500 years old culture, is under extreme threat. Arid land now faces increased water shortages, making them among the first internal climate change refugees.
- **Economic and social impacts:** Significant proportion of GDP already lost each year due to climate change.

# CLIMATE CHANGE SCENARIOS A2 and B2

ECHAM4 model (Resol. 25km x 25 km): The temperature could increase in all of Bolivia with the highest in the Highlands and the Amazon. The temperature increase could be in the range of 1-2 ° C until 2030 and 5-6 ° C up to 2100, compared with average values from 1961-1990.



# **Consulting Process Proposal Formulation**



**Inter-  
Viceministerial  
Group**

**Sectoral and  
Subnational  
focal points**

**Interinstitutional  
meetings  
Consultation events**

**International  
donor  
community  
and relevant  
UN agencies  
meetings**

## ***MAIN RESULTS FROM JOINT MISSIONS***

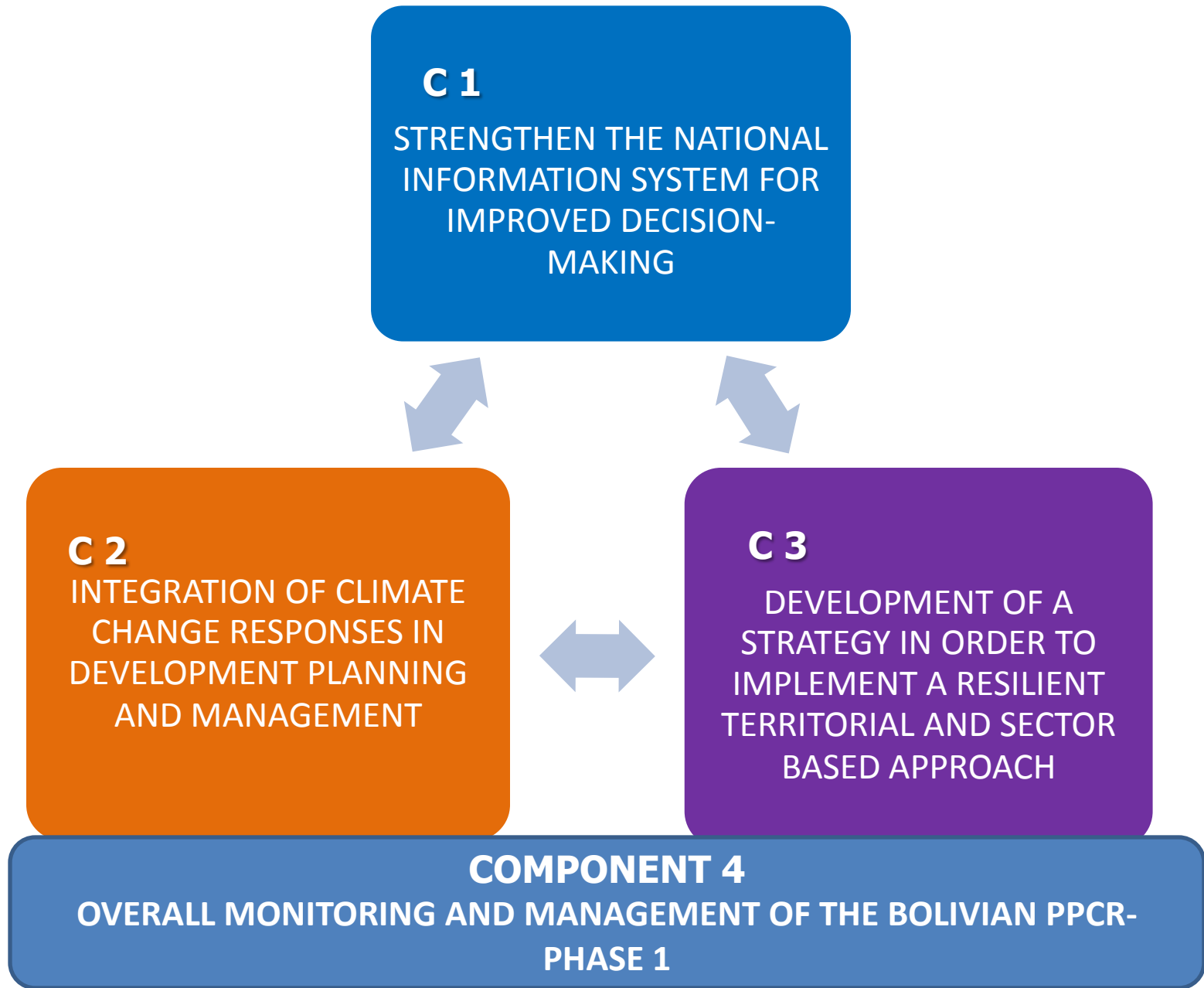
Three missions took place (WB and IADB): one scoping mission in August 2009 (three days), one preparatory mission in February 2010 (5 days) and the first joint mission in February 2010 (5 days). The main contributions and results from the missions have been:

- Increased political commitment towards the PPCR proposal, due to increased involvement and engagements of the decision-makers and hierarchical authorities.
- Contribution and validation of the process of making the PPCR transversal in prioritized sectors by establishing meetings with high ranking authorities and technical teams.
- Critical analysis and providing inputs, feedback on the technical and administrative aspects based on national and international experiences for the draft proposal for Phase 1.
- Team work between the WB and IADB, and the local team to produce draft proposal.

# Methodology of events

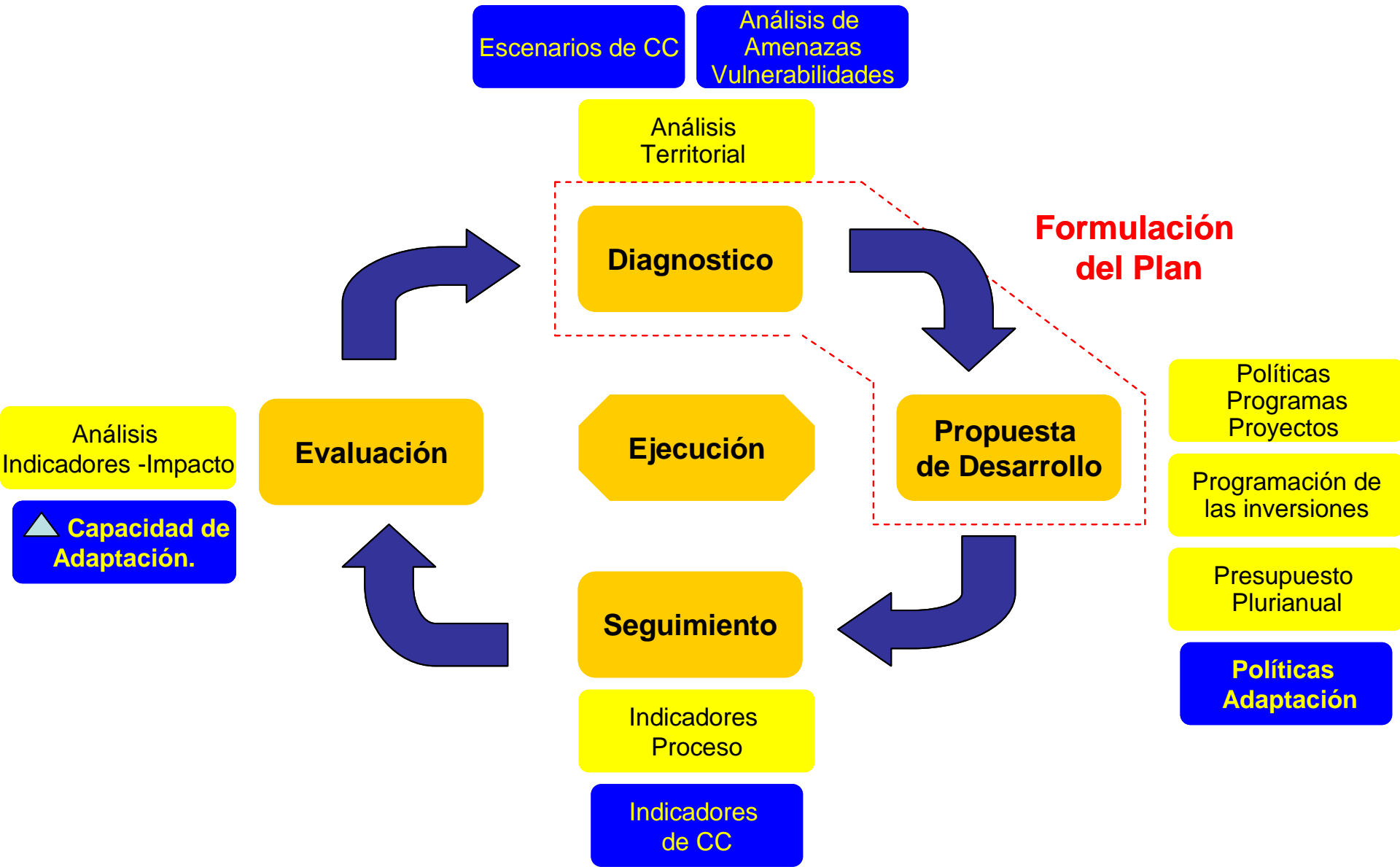


# PROGRAM STRUCTURE PPCR-BOLIVIA FASE 1



# **Component 1: Strengthen the national information system for improved decision-making**

- This component aims to improve the hydro-meteorological information systems as well as climate resilience capacities within relevant institutions and ministries focusing on:
  - (i) providing relevant information and knowledge to decision makers,
  - (ii) academic training,
  - (iii) planning and strategic development of the productive sector



# COMPONENTE 2: INTEGRACIÓN DE LA RESPUESTA AL CAMBIO CLIMÁTICO EN LA PLANIFICACIÓN Y GESTIÓN

## 2.1 PLANIFICACION



2.1.1 Integration of Climate Change in the NATIONAL ECONOMIC and SOCIAL DEVELOPMENT PLAN



2.1.2 Integration of Climate Change in the INTEGRAL PLANIFICATION SYSTEM OF THE PLURINATIONAL STATE OF BOLIVIA

## 2.2 PUBLIC ADMINISTRATION



2.2.1 Estructuration of the PLURINATIONAL COUNCIL OF CLIMATE CHANGE



2.2.2 Estructuration of FINANCE MECHANISMS FOR CLIMATE CHANGE

## **Component 2: Integration of climate change responses in development planning and management**

This component has the objective to integrate climate risk and adaptation strategies into the public policies and norms focusing on the planning in the productive sector as well as in the overall public investment planning. The aim is to design financial mechanisms capable of attracting and allocating financial resources for climate change resilience, as well as to create the Plurinational Climate Change Committee and its Technical Secretary as an instance for dialogue and coordination in constructing national policies concerning adaptation to climate change.

# COMPONENT 3: DEVELOPMENT OF A STRATEGY IN ORDER TO IMPLEMENT A RESILIENT TERRITORIAL AND SECTOR BASED APPROACH

## PLANNING



**3.1 STRATEGIC SECTORIAL PROGRAMS ADDRESSING CLIMATE CHANGE**



**3.2 STRATEGIC TERRITORIAL PROGRAMS ADDRESSING CLIMATE CHANGE**

# ACTION

3.3.

- PREPARATION OF INVESTMENT AND FINAL DESIGN DOCUMENTS and COMPLEMENTING EXISTING DOCUMENTS WITH CLIMATE CHANGE APPROACH

3.4.

- FORMULATION OF STRATEGIC PROGRAM TO ADDRESS CLIMATE CHANGE

## **Component 3: Development of a strategy in order to implement a resilient territorial and sector based approach**

- The component aims to formulate the Strategic Program for Climate Resilience with a focus on “action-planning” and support the development of an integrated territorial development approach through the following prioritized sectors: soil and water resources, food security, infrastructure, human settlements and risk management, health, ecosystems and biodiversity, education and science and technology.

# COMPONENT OF SECTORIAL PROPOSALS



EXTREME  
EVENTS

CLIMATE CHANGE  
IMPACTS



GRADUAL  
EVENTS

## INTEGRATION OF RESPONSE TO CLIMATE CHANGE IN SECTORIAL PLANNING AND MANAGEMENT

PRIORITY STUDIES / PROJECTS AND / OR PROGRAMS (generic and specific)

INSTITUTIONAL MANAGEMENT AND CAPACITY BUILDING

Identification and prioritization of Equipment, Innovation and Technological Transfer needs

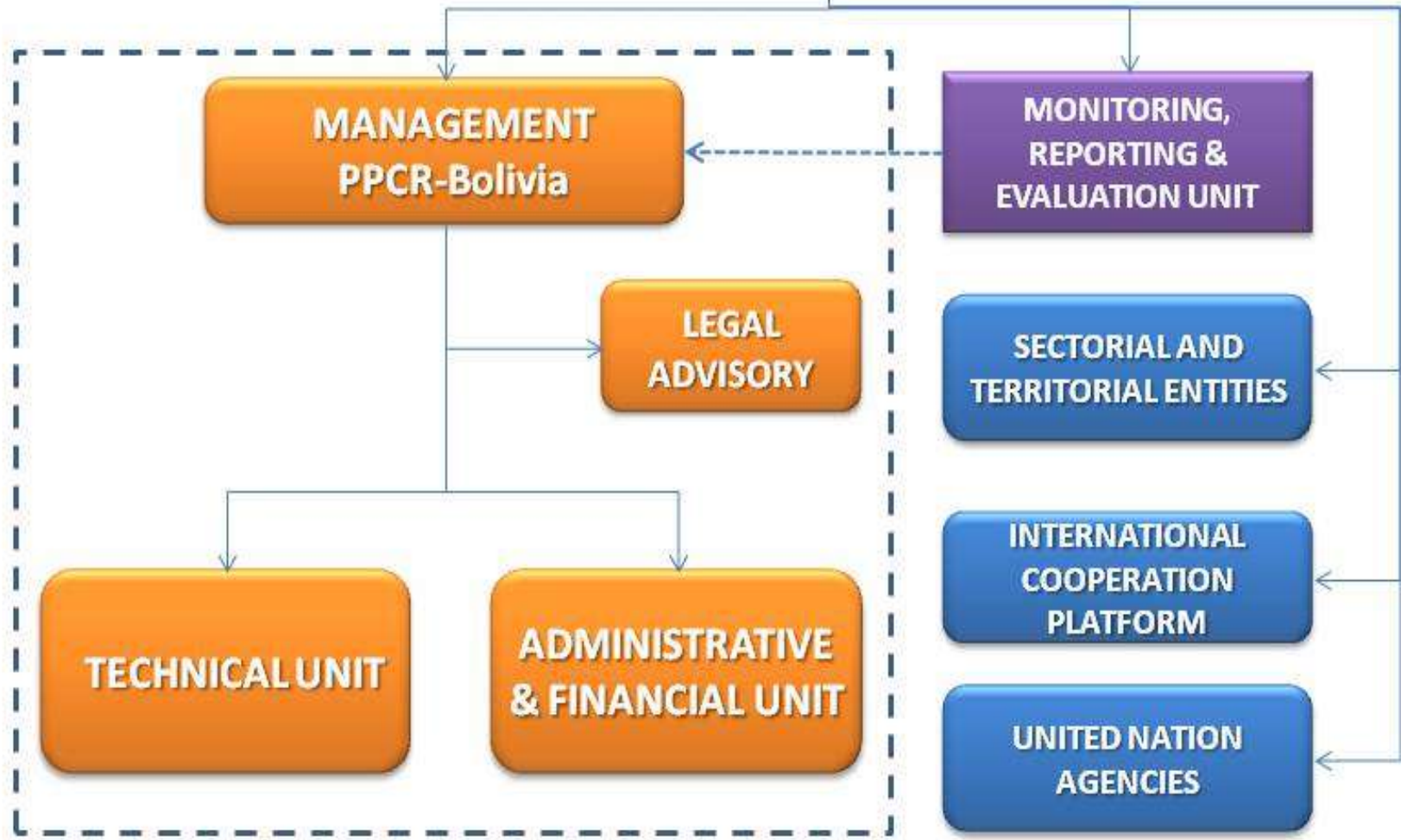
RE-VALUATION OF ANCESTRAL KNOWLEDGE AND TECHNIQUES


# **Component 4: Overall monitoring and management of the Bolivian PPCR-Phase 1**


This component aims to establish the organizational structure, financial and administrative set-up and operations as well as monitoring the progress of the PPCR Phase 1.


# COORDINATION COMMITTEE

EXECUTING ENTITY:  
MINISTRY OF ENVIRONMENT AND WATER RESOURCES



 Organizacional Subsystem

 Coordination Subsystem

 Monitoring, Reporting & Verification Subsystem

THANK YOU