

# FACING THE CHALLENGES OF A CHANGING WORLD

**Marcelo Camardelli**

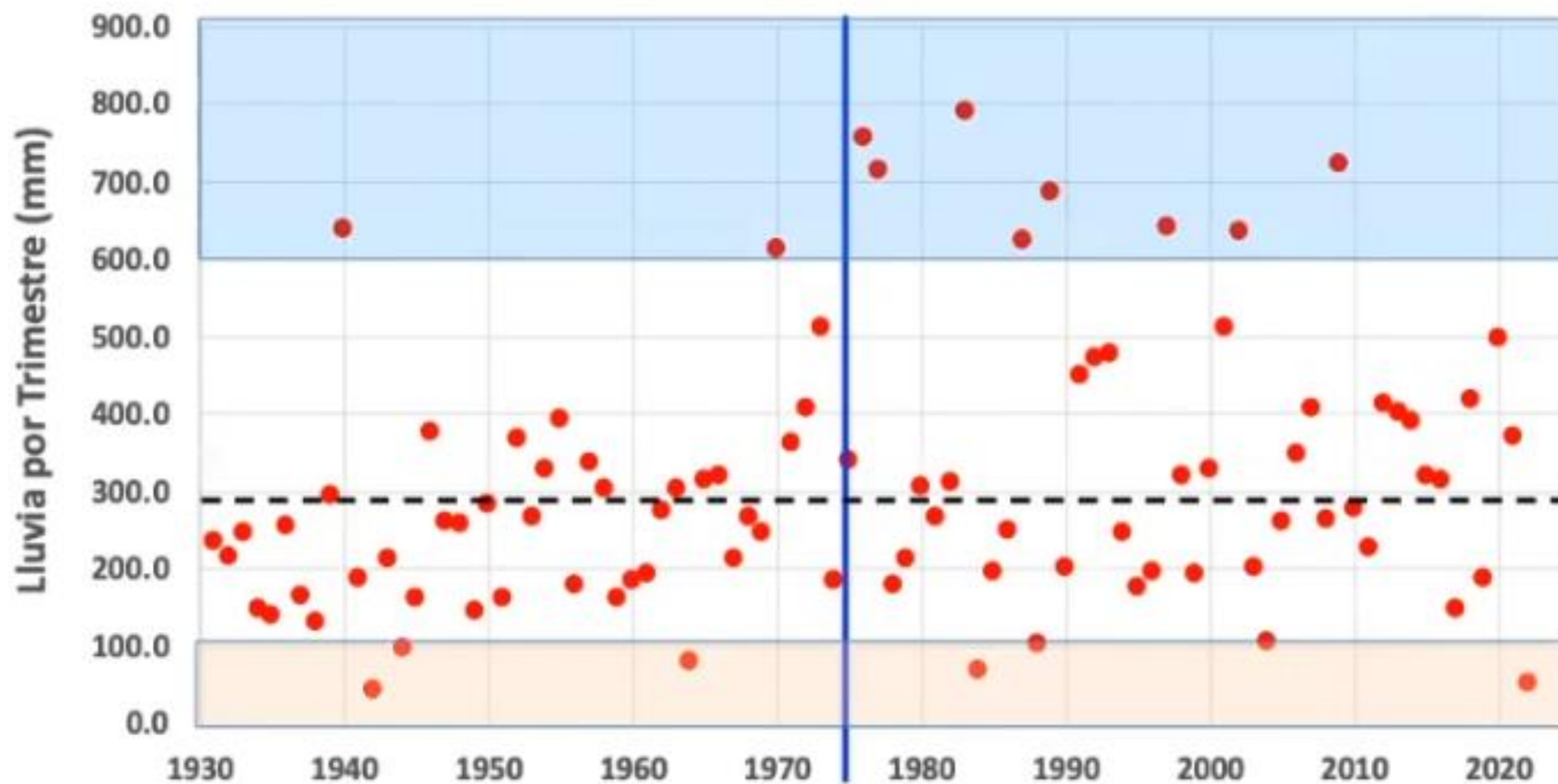
**Assistant Secretary of State for Environment and Infrastructure**

**Rio Grande do Sul - Brazil**



# MUDANÇAS DA CHUVA NO URUGUAI: TENDÊNCIA E VARIABILIDADE

MÉDIA DOS ÚLTIMOS NOVENTA ANOS: 300 mm NO TRIMESTRE



**MAIS QUE O DOBRO**

**CHUVA MAIS VARIÁVEL  
(MAIS EVENTOS  
EXTREMOS)**

**TRÊS VEZES MENOS**

The State faced 10 **EXTREME CLIMATE EVENTS** in less than a year

<b>June 15, 2023</b> Caraá e Maquiné	<b>July 13, 2023</b> Sede Nova	<b>Sept. 2-6, 2023</b> Vale do Taquari	<b>Sept. 23, 2023</b> Bagé	<b>Sept. 26-29, 2023</b> Rio Grande e Pelotas
<b>October 4, 2023</b> São Borja, Itaqui, Uruguaiana	<b>November 3, 2023</b> Barra do Rio Azul	<b>November 17, 2023</b> Vale do Taquari, do Caí e Serra	<b>January 17-18, 2024</b> Vales e RMPA	<b>April to May, 2024</b> Centro, Vales, Serra e RMPA

# 95% OF OUR MUNICIPALITIES WERE AFFECTED

- 95 in calamity
- 323 in imergency
- 59 affected

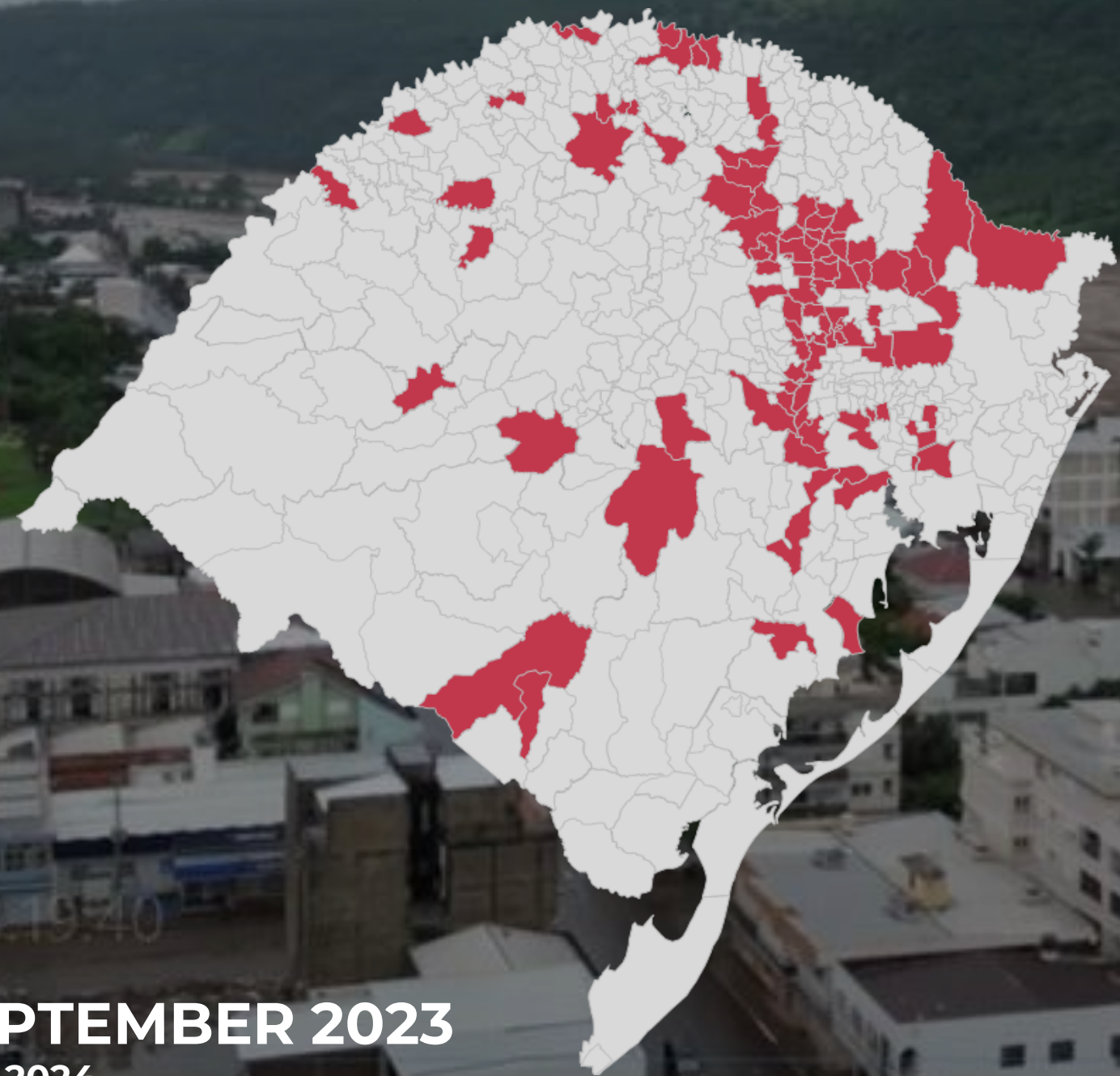
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Civil Defence– 06/06, 9h.  
State Decree n 57.646, 05.30.2024

Affected municipalities: 478



# RIO GRANDE DO SUL HAD 5 TIMES MORE MUNICIPALITIES AFFECTED COMPARED TO THE LAST CLIMATE EVENT



**SEPTEMBER 2023**  
May 2024



**APRIL-MAY 2023**  
June 2024



May 4th, 2024







CASA MARIA TEREZ APARECIDA  
BAIXOS CENTRAIS 37 14  
CENTRAIS SULTS 37 14







RETORNO  
Centro Logístico →  
R. Berto Círio





May 7th 2024









May 4th, 2024









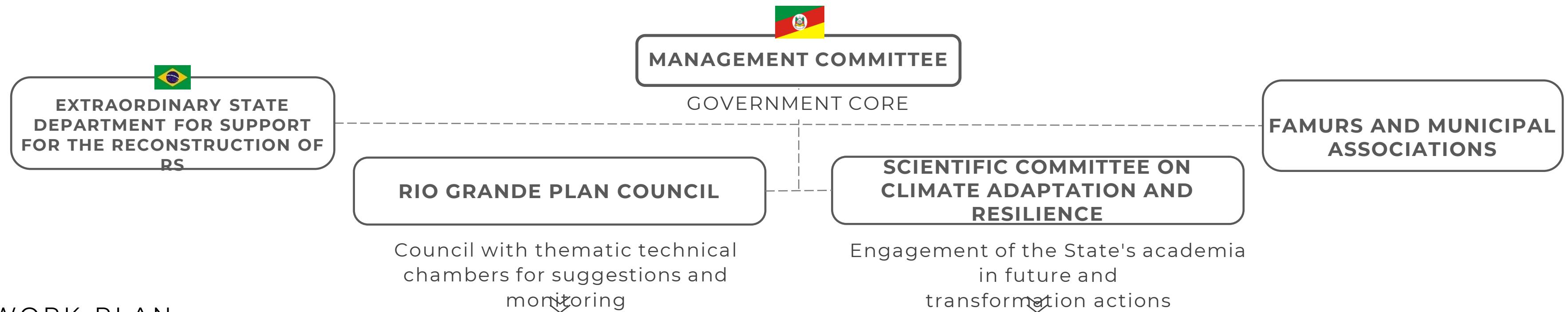


# PLANO RIO GRANDE

**Todos nós por todos nós.**

# GOVERNANCE OF THE RIO GRANDE PLAN

Climate Innovation, Adaptation and Resilience Guidelines



## WORK PLAN

### EMERGENCY

#### SHORT-TERM ACTIONS

Response actions, humanitarian aid and immediate restoration of essential services, consolidated in a service portfolio and contingency protocols for prompt mobilization.

SOCIAL ASSISTANCE

SECURITY

PUBLIC SERVICES

CRISIS OFFICE

### RECONSTRUCTION

#### MEDIUM-TERM ACTIONS

Actions to reconstruct physical structures and recover economic activity, employment and the well-being of the population, on resilient bases, consolidated in a portfolio of services and projects that are continuously monitored

HOUSING

INFRA STRUCTURE

ECONOMIC RECOVERY

### RIO GRANDE DO SUL OF THE FUTURE

#### LONG-TERM ACTIONS

Actions to (re)construct long-term infrastructure, to strengthen community resilience and to achieve economic diversification, consolidated in a sustainable economic development plan, in action plans and in a portfolio of services and projects that are continuously monitored

SUSTAINABLE ECON. DEVELOP. PLAN

VISION OF THE FUTURE

### MAPPING OF RESOURCE OPPORTUNITIES

#### ACTIONS FOR RAISING RESOURCES

Structuring and creating appropriate channels for raising and receiving public and private resources for the reconstruction and transformation of the State, ensuring governance, transparency and ongoing accountability.

### STRATEGIC MONITORING OF THE EXECUTION OF WORK FRONTS

# GOVERNANCE OF THE RIO GRANDE PLAN

Climate Innovation, Adaptation and Resilience Guidelines

## ENVIRONMENT



MANAGEMENT COMMITTEE

GOVERNMENT CORE

RIO GRANDE PLAN COUNCIL

179 representatives

SCIENTIFIC COMMITTEE ON CLIMATE ADAPTATION AND RESILIENCE

44 scientists



(06.26.2024)

(06.13.2024)



# STRUCTURING PROJECTS OF THE RIO GRANDE PLAN

## PRE-DISASTER






### RESILIENCE

Protection and adaptation of the cities and infrastructure. Economy.

-  RIOS Project: Resilience, innovation and projects for the future of RS
-  Flood protection system
-  Desilting of rivers and streams
-  Nova urbanização de cidades
-  Solutions for resilience of municipalities
-  Municipalities Partnership and Resilient Infrastructure Program
-  Universal basic sanitation
-  Economic activation

### PREPARATION






Mapping, monitoring, alert, response and contingency forces

-  Topographic mapping of the state
-  More advanced monitoring systems
-  Strengthening of the Civil Defense structures and of the response forces
-  Culture of prevention and guidance in risk situations
-  Insurance for projects in risk areas

## POST-DISASTER

### RECONSTRUCTION

Reconstruct better

- State Infrastructure:
-  Schools and PPPs for resilient schools
-  Bridges
-  Roadways
-  Public buildings
-  Housing

# STRUCTURING PROJECTS OF THE RIO GRANDE PLAN

PRE-DISASTER

## RS OF THE FUTURE: RESILIENCE



### City protection systems

- Jacuí – Eldorado
- Arroio Feijó - Alvorada, Porto Alegre
- Sinos
- Gravataí
- Caí
- Guaíba
- Outros



### Desilting of rivers and streams

- Interventions in small rivers and streams
- Studies and interventions in large rivers



### New urbanization of cities

- Review of master plans
  - Roca Sales
  - Muçum
  - Cruzeiro do Sul
  - Arroio do Meio
  - Encantado
  - Estrela
  - Colinas
  - Cluster study



### Solutions for municipal resilience

- Nature-Based Solutions Studies - NBSs (Green and Blue Infrastructures)
- Reconversion of urban areas into restricted use areas
- Municipal financing program



### Resilient Infrastructure and Partnerships Program

- Block 1 Concession (RMPA)
- Block 2 Concession (Taquari Valley)
- Alternative roadway system
- Backup airports
- Strengthen the power grid
- Telefonía (*roaming*)



### Universal basic sanitation

- Universalization of water and sewage
- Review of urban drainage plans and project support



### Economic activation

- Incentives for recovery
- Economic reconversion
- Attracting and retaining talents
- Green hydrogen
- Semiconductors
- Low Carbon Agriculture
- Others



### RIOS Project: resilience, innovation and projects for the future of Rio Grande do Sul

- Studies
- Projects and interventions for territorial reorganization

**30**  
PROJECTS  
Sema-RS



REDUCTION AND  
MITIGATION



PREVENTION



ADAPTATION



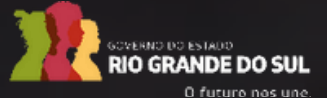
CROSS-CUTTING  
PROJECTS



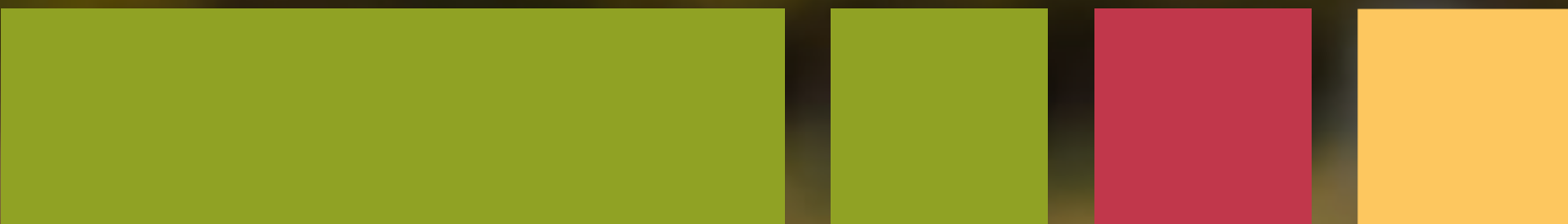
RESILIENCE



Agenda  
**PRO  
CLIMA  
2050**



# Thank you!



GOVERNO DO ESTADO  
**RIO GRANDE DO SUL**

O futuro nos une.

**Marcelo Camardelli Rosa**

Assistant Secretary of State for Environment and Infrastructure

Rio Grande do Sul