

Complementing the Global Drought Information System with South America Drought Coverage

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HOW A GLOBAL DROUGHT MONITORING SYSTEM WAS FIRST ENVISIONED

Group on Earth Observations (GEO) 1st Earth Observations Summit

Secretary of State Colin Powell opens first Earth Observations Summit

“Working together, our nations will develop and link observation technologies for tracking weather and climate changes in every corner of the world, which will allow us to make more informed decisions affecting our environment and economies. Our cooperation will enable us ***to develop the capability to predict droughts***, prepare for weather emergencies, plan and protect crops, manage coastal areas and fisheries, and monitor air quality.”



A GEO Vision of International Drought Monitoring



4th GEO Plenary Session
Cape Town, South Africa

Creating a Pathway

- ✓ Identify experts who can meet to define best way to approach the development of a drought early warning system
- ✓ Identify one or more fundamental aspects to address first
- ✓ Develop a Task within the GEO Work Plan

Global Drought Information System

- Participants
 - US NIDIS – NCDC
 - Europe – European Drought Observatory
 - Africa – ICPAC & Princeton University
 - Australia – BoM & ABARES
 - WCRP (forecasting)
 - South America (exploring)
- Coordination
 - GEO
 - WMO

Global Drought Early Warning System

Objectives and Goals

- ✓ **Objectives:** An *International Drought Information System* that weaves together current and future observation systems from participating Nations to provide:
- An early warning system for drought
 - Information for drought response, planning, mitigation, and recovery
 - An interactive, web-based drought portal and analysis tools
 - Provide critical drought information to countries with inadequate monitoring resources



Global Drought Early Warning System

Objectives and Goals

✓ Goals:

- A system of systems for data & information sharing, communication, & capacity building to take on the growing worldwide threat of drought
- Regular drought warning assessments issued as frequently as possible with increased frequency during a crisis

The North American Drought Monitor



✓ The Centerpiece

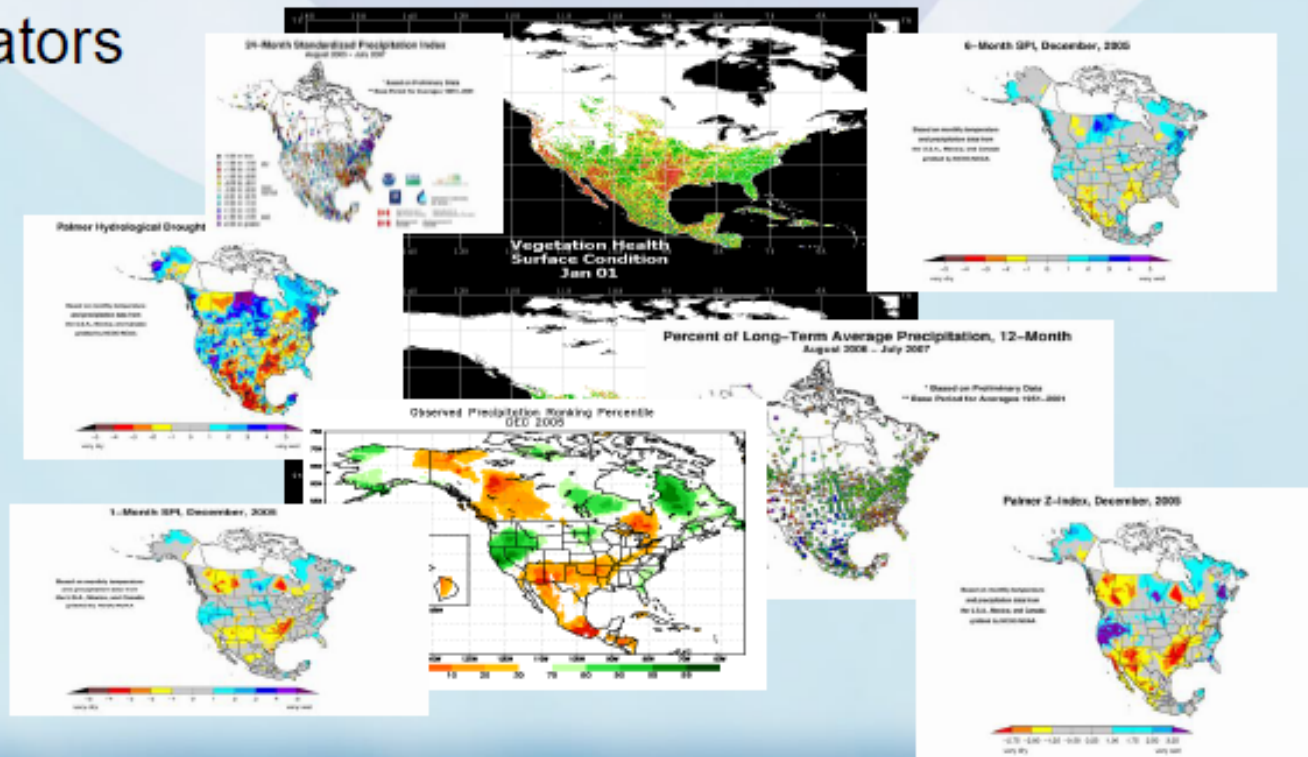
- Drought experts and database specialists working together to analyze disparate climate observations at multiple scales
- Processes were established to facilitate the open exchange of data and information across borders
- The transfer of scientific expertise and data management principles between countries was a key element of building the capacity to monitor drought conditions on an ongoing basis across the continent.



The North American Drought Monitor

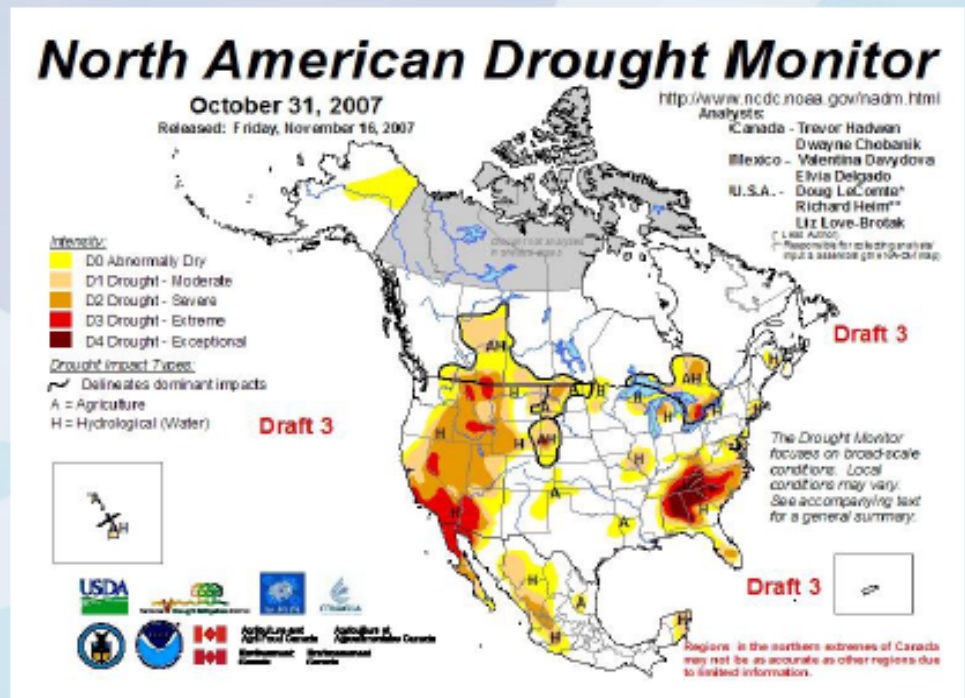
✓ Collaboration occurs each month

- Identification of lead NADM author for each month
- Starts with the exchange of *in situ* data
- Centralized production of continental scale maps and indicators



The North American Drought Monitor

- ✓ **Collaboration occurs each month**
 - Analysis within each country by country's lead expert
 - Local to national discussions and analysis
 - Country-scale analysis distributed among North American drought experts
 - Lead NADM author in cooperation with lead from each country prepares continental analysis and depiction
 - After a series of drafts, the final North American drought map and text discussion are completed



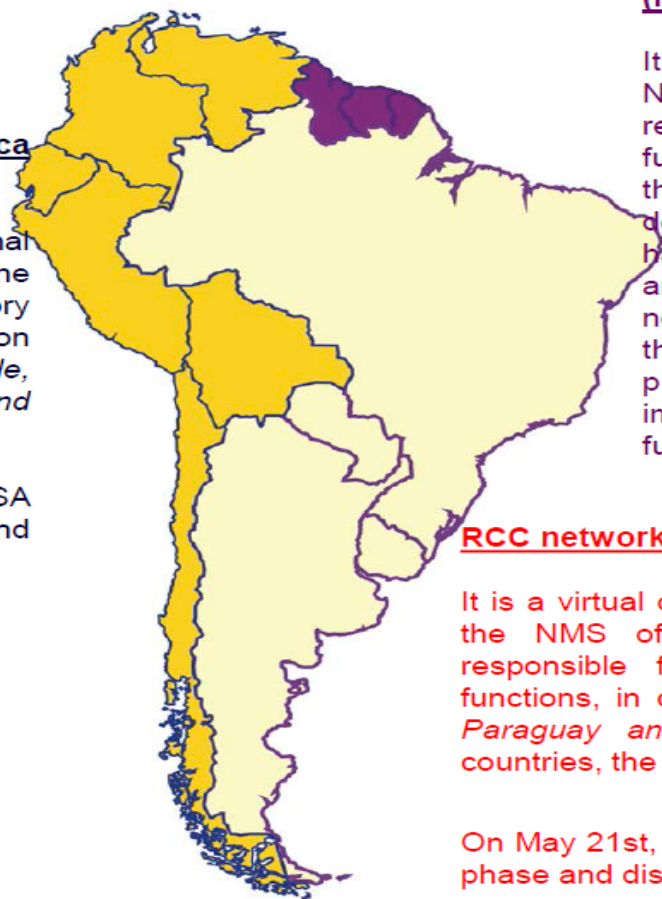
Implementation of Regional Climate Centers (RCCs) in South America in support of the Global Framework for Climate Services (GFCS)

Status of RCCs in South America (RAIII)

RCC for Western South America (RCC-WSA)

RCC-WSA is a multi-functional center, where CIIFEN coordinates the implementation of the mandatory functions of the RCC in collaboration with the NMSs of *Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela*.

On March 1st, 2013, the RCC-WSA began its implementation phase and launched its website.



RCC network for Northern South America (RCC-NSA)

It is designed as a RCC network, where the NMS from *Brazil and French Guyana*, will be responsible for developing the mandatory functions of the center. However, in recent years there have been no major advances in the development of the RCC, although, RAIII still has the desire to strengthen the ability to deliver and produce climate services focused in the northeastern part of South America. For now, this initiative will remain on hold, to evaluate the progress of the RCC-SSA after the launch of its implementation phase and then decide on their future activities.

RCC network for Southern South America (RCC-SSA)

It is a virtual organization, established as a network, where the NMS of *Brazil and Argentina* are the countries responsible for the implementation of the mandatory functions, in collaboration with member countries, NMS of *Paraguay and Uruguay*, in addition to the associated countries, the NMS of *Bolivia and Chile*.

On May 21st, 2014, the RCC-SSA began its implementation phase and displayed its website in Spanish and Portuguese.



Centro Regional del Clima para el Oeste de Sudamérica



Inicio

Pronósticos a Largo Plazo

Monitoreo del Clima

Servicio de Datos Operacionales

Entrenamiento en el uso de Productos y Servicios del CRC

Investigación y Desarrollo

ES | EN | PT

Centro Regional del Clima

para el Sur de América del Sur

Fase Demostración

Home

Institucional

Monitoreo

Previsión Climática

Climatología

Aplicaciones

Capacitación

I & D



Atlas Climático

Descripción climática de temperatura media y precipitación a nivel mensual, estacional y anual.

Prevision Climatica

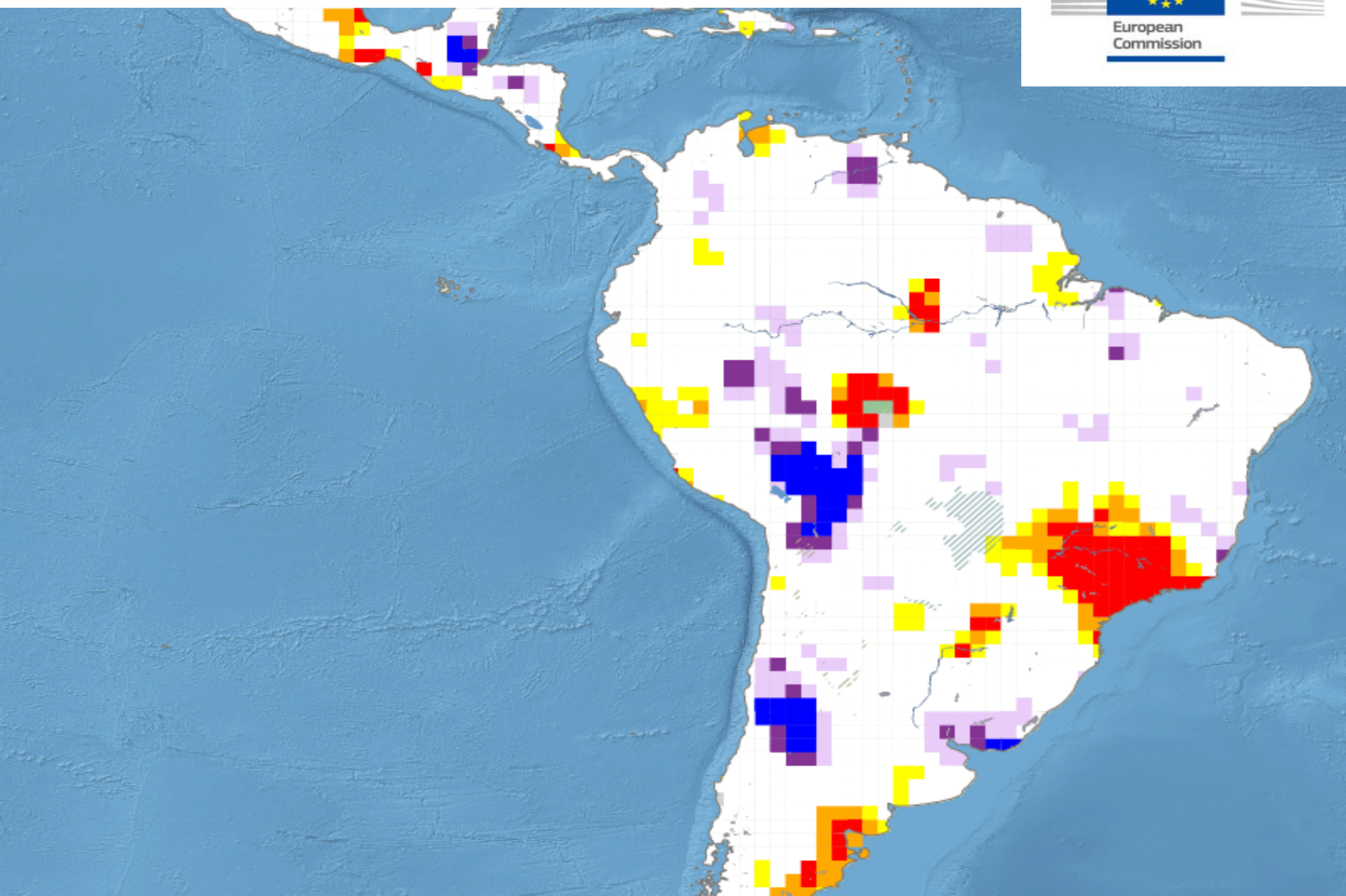
Previsión de la tendencia climática trimestral de temperatura y precipitación.

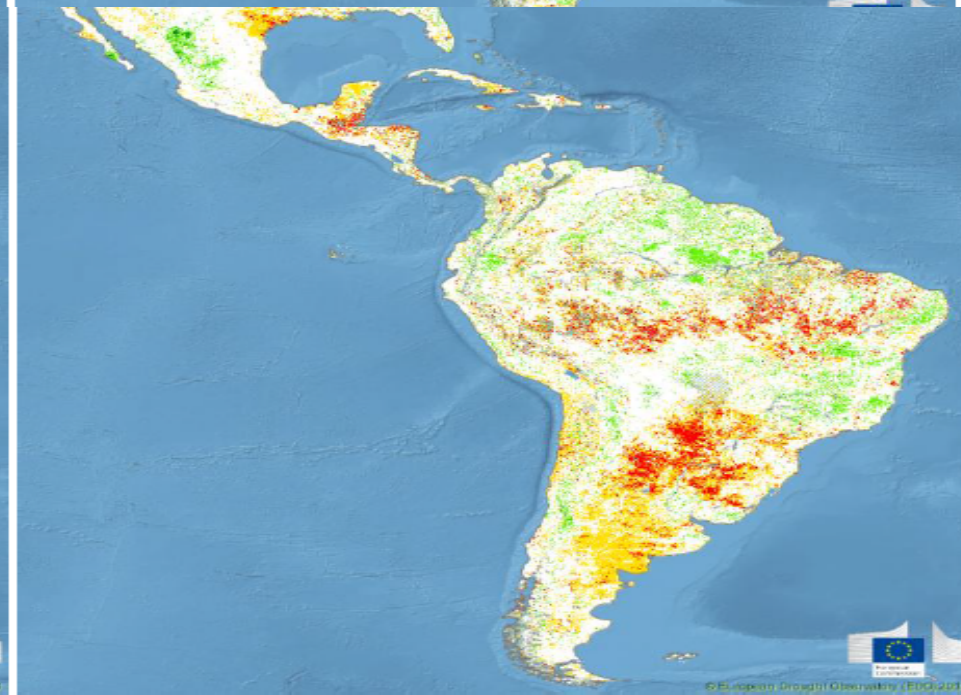
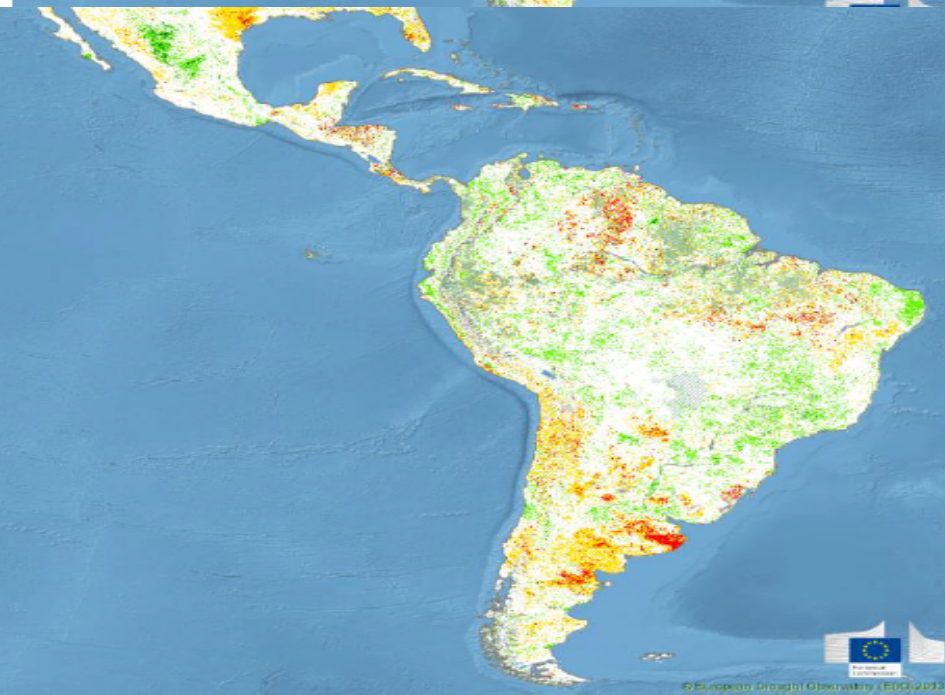
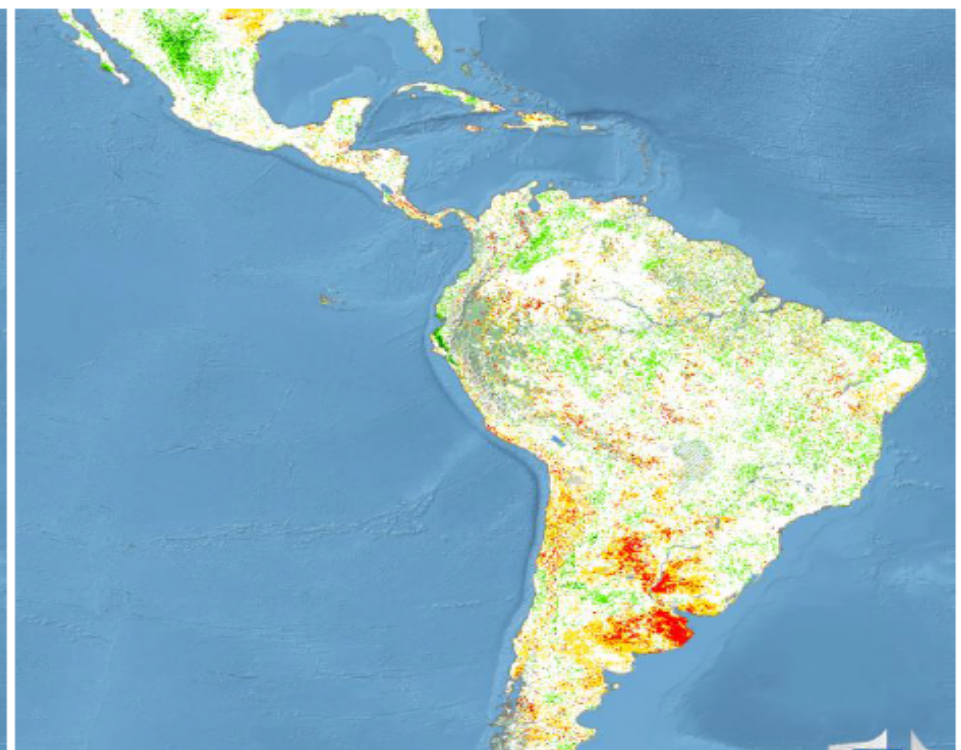
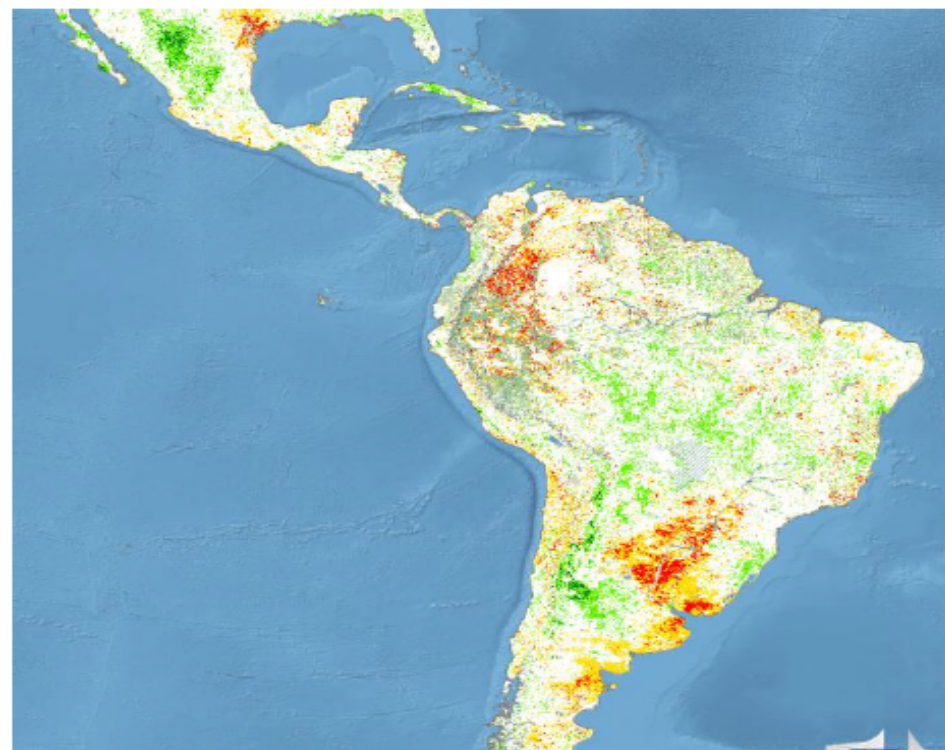
Monitoreo

Seguimiento en distintas escalas temporales de las principales variables climáticas.

Aplicaciones

Productos derivados de información satelital.







THANK YOU!