

# Applications and Final Users in Latin America



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Maria Isabel Cruz Lopez  
Head of Remote Sensing Division  
CONABIO - México

GOFC-GOLD  
Fire Mapping and Monitoring Implementation  
Team Meeting  
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# Outline

- Data and Fire products
- Operational Information System
- Users

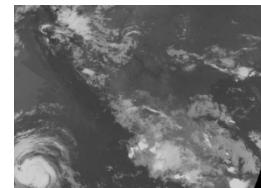


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# Data evolution

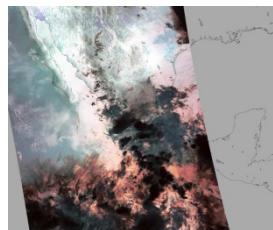


From 2014



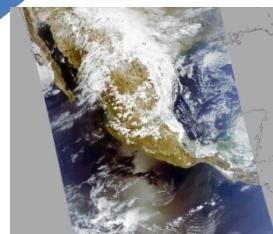
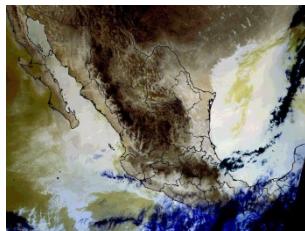
ABI – Advanced Baseline Imager

From 2004



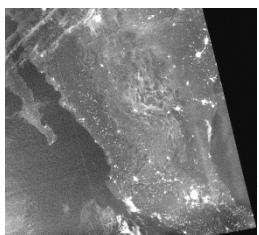
VIIRS – Visible Infrared Imaging Radiometer Suite SNPP, JPSS1

1999 - 2003



MODIS – Moderate Resolution Imaging Spectroradiometer  
Terra and Aqua

1998



AVHRR – Advanced Very High Resolution Radiometer

DMSP – OLS Defense Meteorological Satellite Program – Operational Linescan System



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# Operational products

## **Active fires**

### **Global and Regional**

AVHRR

GOES

MODIS

VIIRS

## **Burnt Area**

Global: MODIS, VIIRS

Local: Landsat, Sentinel

## **Emissions**

Global

Regional

# Direct Readout in Latin America

## MODIS and VIIRS data

- 1 Mexico City, Mexico (CONABIO)
- 2 Cuibá, Brazil (INPE)
- 3 San Paulo, Brazil (INPE)
- 4 Cordoba, Argentina (CONAE)
- 5 Buenos Aires, Argentina (INTA)
- 6 Santiago, Chile (SAT)

## GOES 16

- 1 Mexico City, Mexico (UNAM)
- 2 Cuibá, Brazil
- 3 San Paulo, Brazil

## Other

## AVHRR data worked with fires

- a) Mexico (Colima University and UNAM)
- b) Nicaragua (MARENA)
- c) Honduras (ESCANIFOR)





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# Operational Information Systems

## Argentina (Fire risk)

Pronóstico de Índice de Riesgo de Incendio

This web application allows users to predict the Fire Danger Index (PDI) in real time, using meteorological data, to monitor and control forest fires in Argentina. It includes a map of Argentina with fire risk zones and two images of fires.

## Bolivia

SATRIFO

Bienvenidos a SATRIFO

The SATRIFO system provides information and management tools for forest fires in Bolivia. It includes a map of Bolivia with fire risks, reports on daily fires, and various links for reports, maps, and institutional documents.

## Brazil

INPE - Instituto Nacional de Pesquisas Espaciais  
Programa Queimadas

A grid of 16 numbered items related to forest fires:

- 1. Informações Atuais
- 2. Relatório Histórico e Atividades
- 3. Boletins Infantis
- 4. Arquivos Históricos
- 5. SIG Foco2: Gestão e API
- 6. Diretório das APIs
- 7. CIMA Virtual
- 8. Monitoramento de Focos nas Áreas de Instalação Ambiental, Cerrado e Áreas Protegidas
- 9. Risco de fogo e meteorologia
- 10. SISAM
- 11. Emergências e Volatilidades
- 12. Publicações e Impacto
- 13. Recursos por e-mail
- 14. Capacitação
- 15. Links externos
- 16. Colaboradores

## Chile (Fire risk)

Indice de Riesgo de Incendios Forestales

This website provides information on forest fire risk in Chile, including a map of Chile with fire risk zones and various navigation links for forest management and prevention.

## Early warning

Sistema de Alerta de Incendios

This system provides early warning for forest fires in Mexico, showing a map of Mexico with fire alerts and various navigation links for monitoring and management.

## Mexico

## Fire danger In developing

Sistema Nacional de Peligro de Incendios

This system provides information on fire danger in Mexico, showing a map of Mexico with fire danger levels and various navigation links for monitoring and management.

Durango University to CONAFOR



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SERVIR

INICIO MODELOS CLIMATICOS SERVIR EN ACCIÓN PRONÓSTICO INCENDIOS GALERÍA SOBRE SERVIR

#### SISTEMA REGIONAL DE VISUALIZACIÓN Y MONITOREO DE MESOAMÉRICA



PRONÓSTICO DE LLUVIA

SERVIR APP

SERVICIOS CLIMÁTICOS

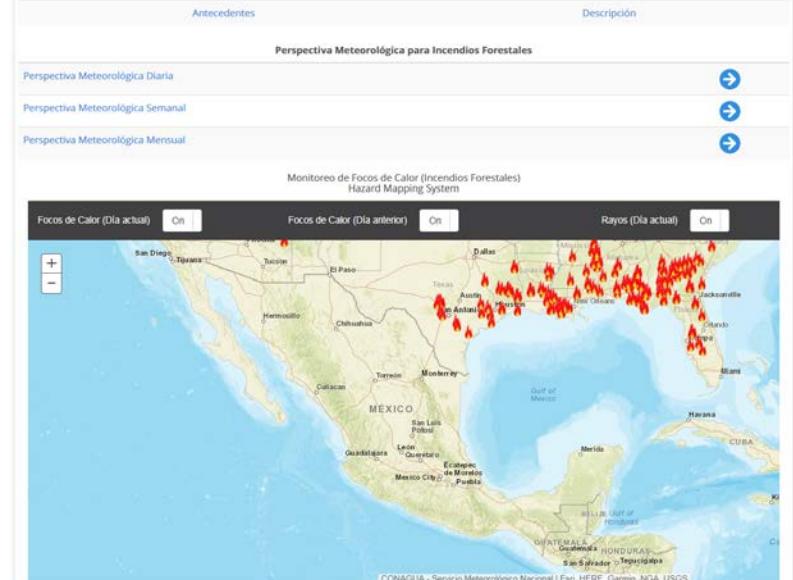
OLEAJE Y MAREAS

MAREA ROJA

DESASTRES

National Meteorological Service  
Mexico

#### Focos de Calor relacionado con Incendios Forestales



# Regional collaboration



- National and Regional System

1. Brazil (INPE)
2. Mexico (CONABIO)

- National System

- 3 Bolivia (FAN)
- 4 Argentina (CONAE)
- 5 Chile (CONAF)

- Local

- 6 Chile (Magallanes University)
- 7 Argentina (INTA)

→ Knowledge  
(algorithms, systems)

→ Data and Information

REDLATIF

Global Wildland Fire Network

Data



Information



Knowledge



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# Users Mexico and Central America

CONABIO sends everyday more 400 e-mail

- ✓ *Institutions*

## Mexico

- 86 *Institutions*

**Central America  
34**

Guatemala 14

Belize 1

Honduras 2

El Salvador 1

Nicaragua 13

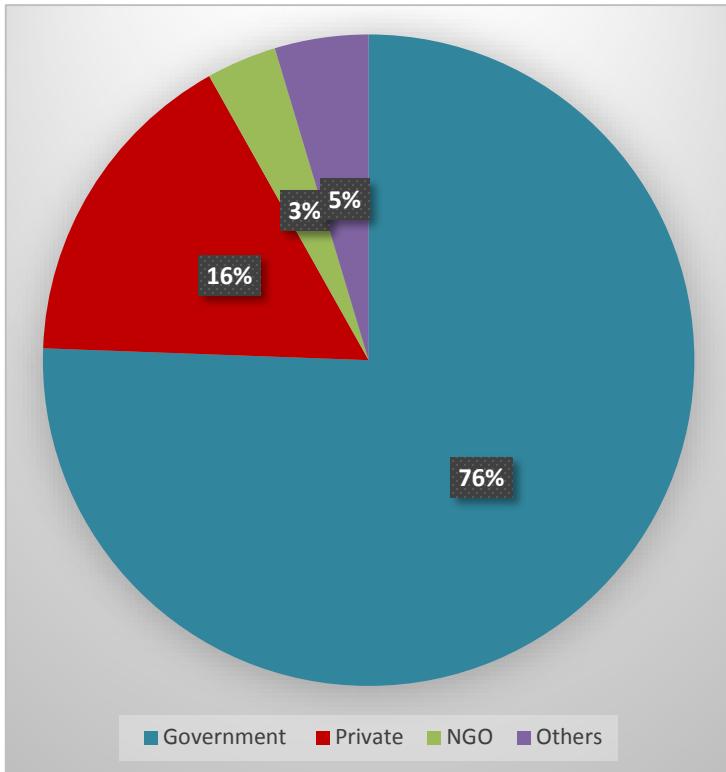
Costa Rica 1

Panama 2

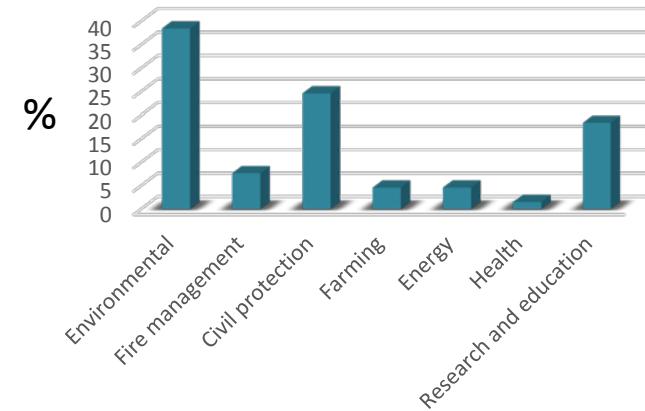


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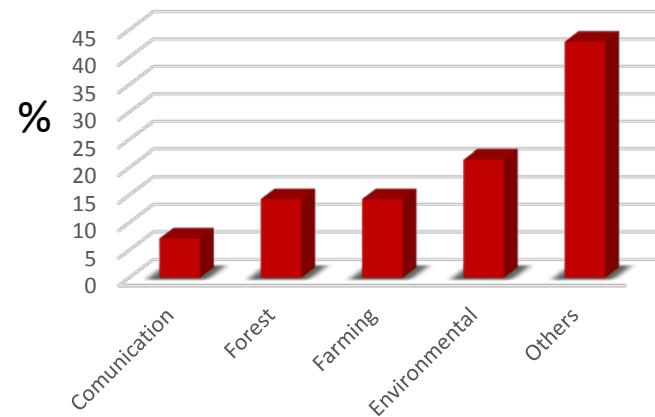
# Users in Mexico



Government



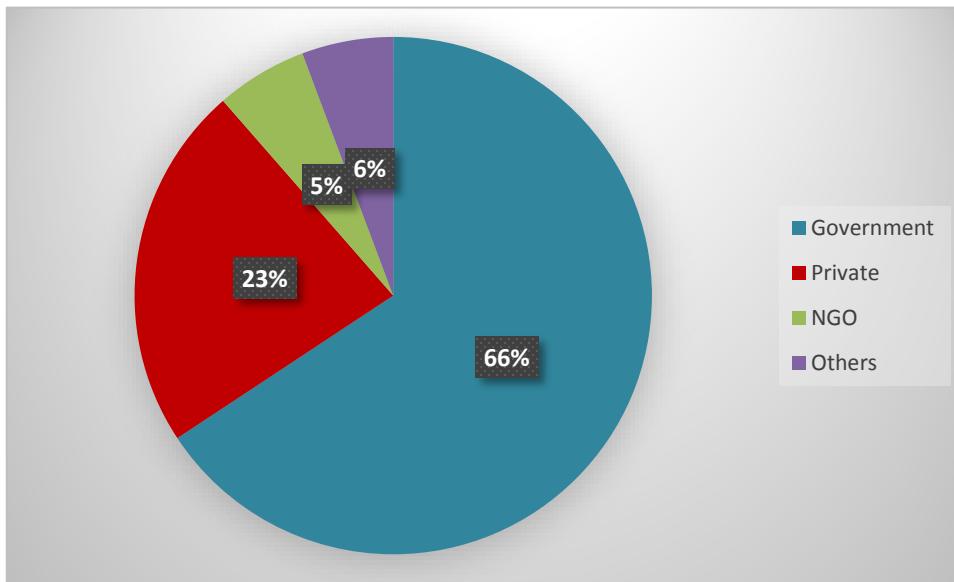
Private





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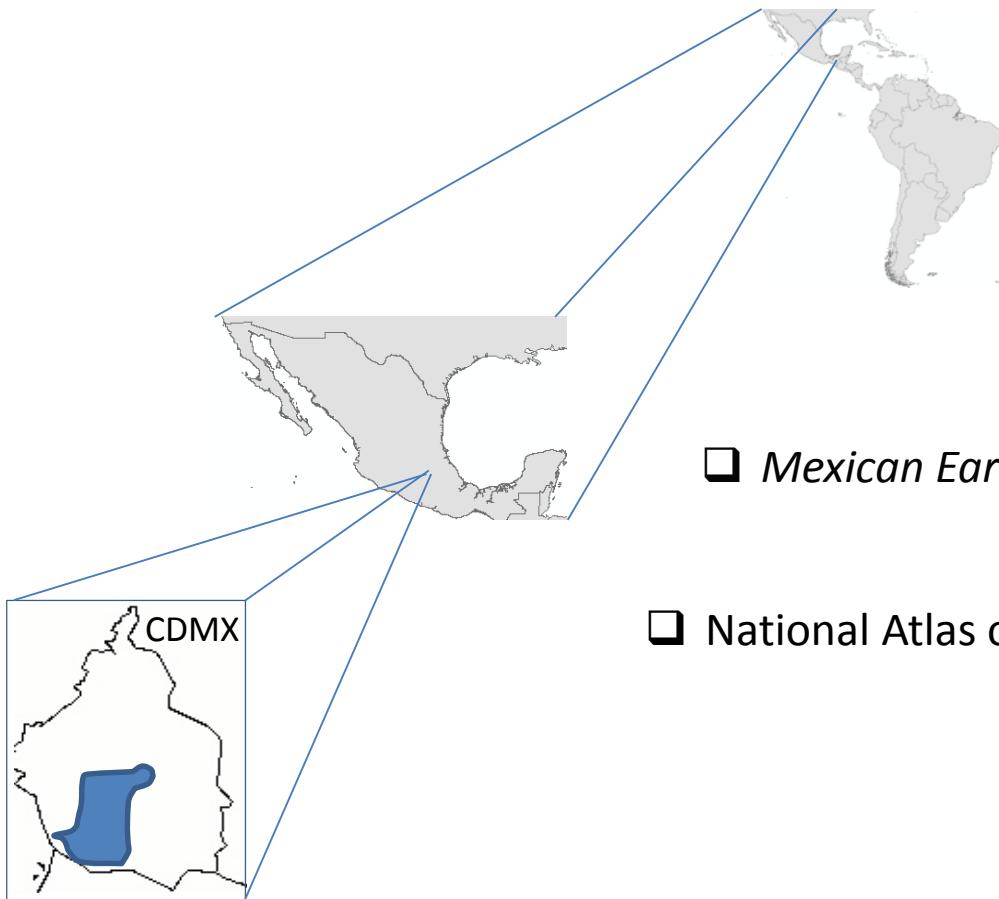
# Users in Central America





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# Level of system



The Latin American Remote Sensing and Forest Fires Network  
REDLATIF

Mexican Early Warning System of Fires  
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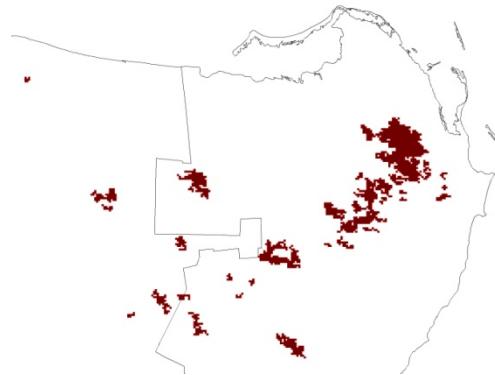
National Atlas of Risk

Tlalpan



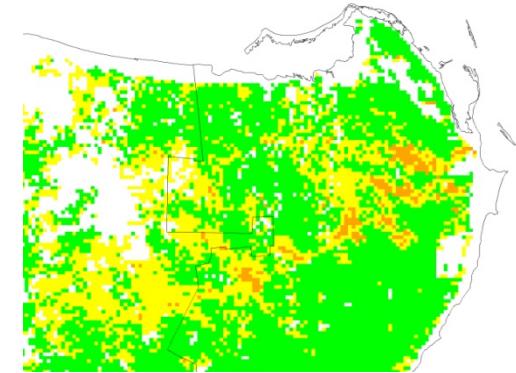
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# Data

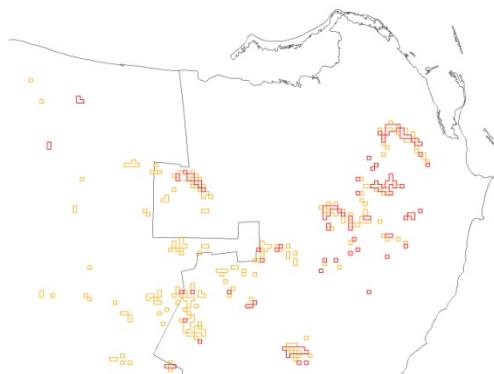


# Information

Where  
When  
How  
How much



# Knowledge

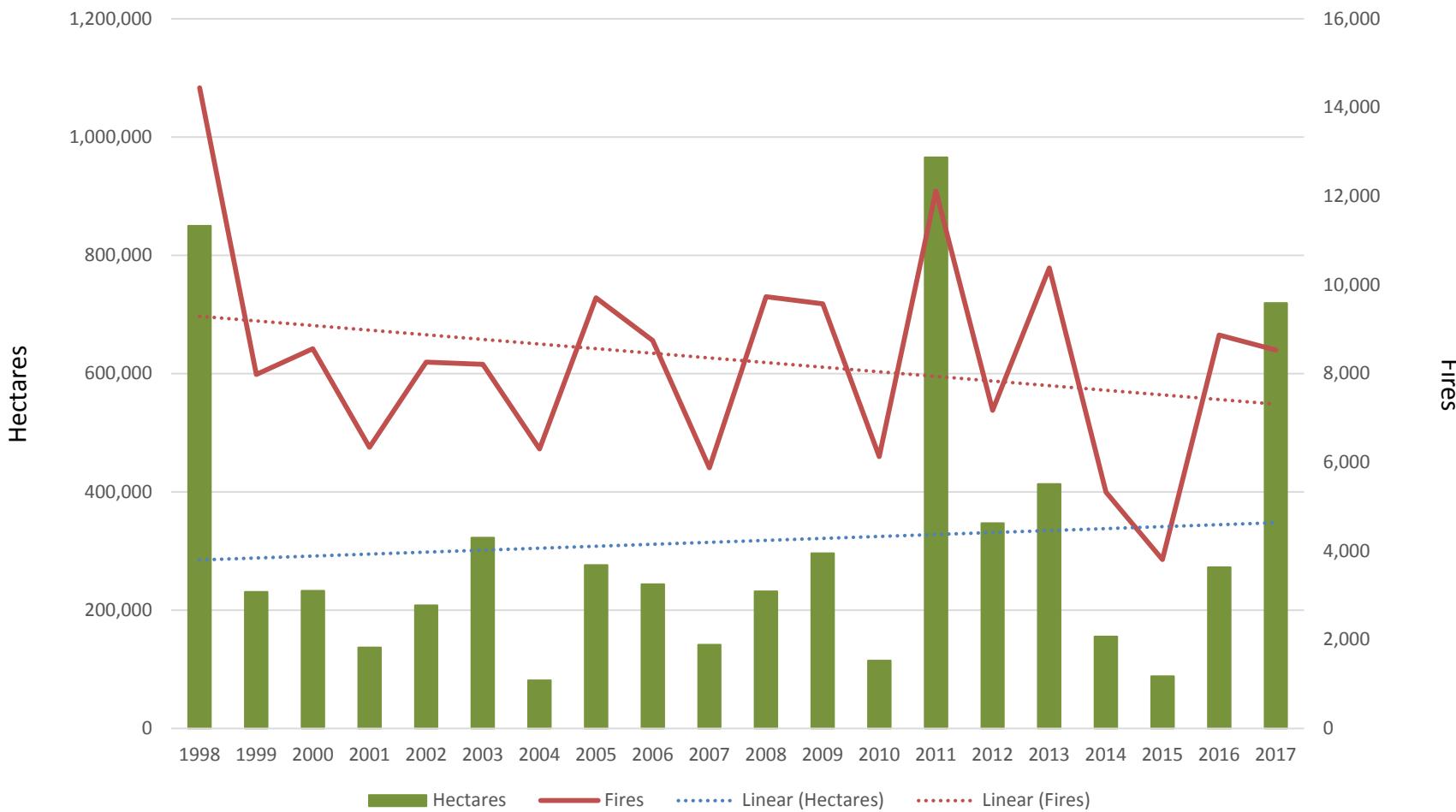


Why  
Prediction model  
Prevention



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# Forest Fires in Mexico



# Summary

- There are 7 operational system associated with remote sensing data.
- The information is necessary in different levels:  
Global, Nacional, Regional, Local
- It is necessary to build the bridge between the research and the final user



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*Thank you!*