



# GEO for climate action

ITU - Workshop on green ICT and emerging technologies  
towards climate change mitigation

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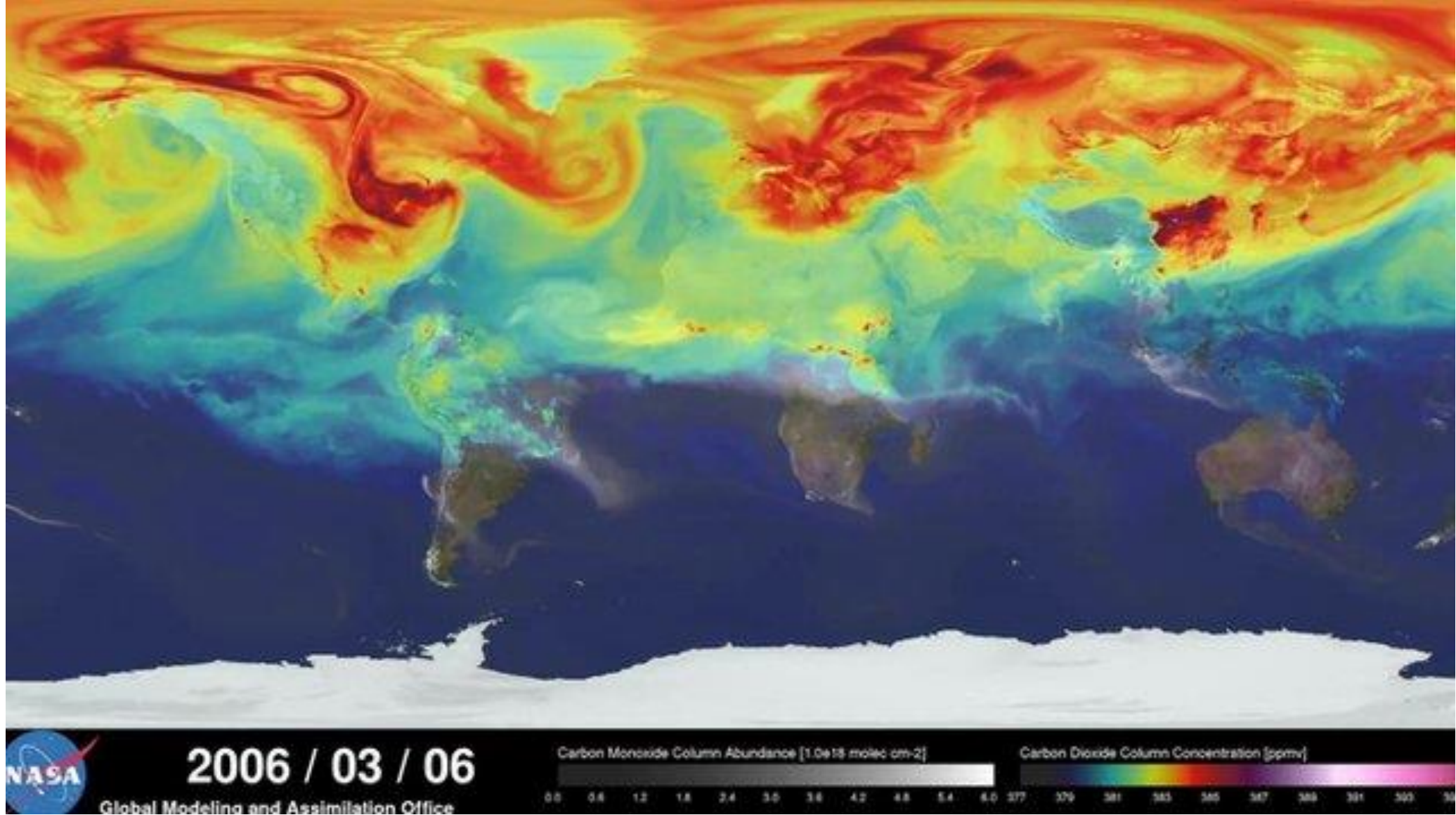
# What are Earth observations?

Earth observations are data and information collected about our planet, whether relating to the atmosphere, oceans or land.

This includes satellite imagery, space-based data, as well as ground-based data – collected with sensors in, on or around the Earth.

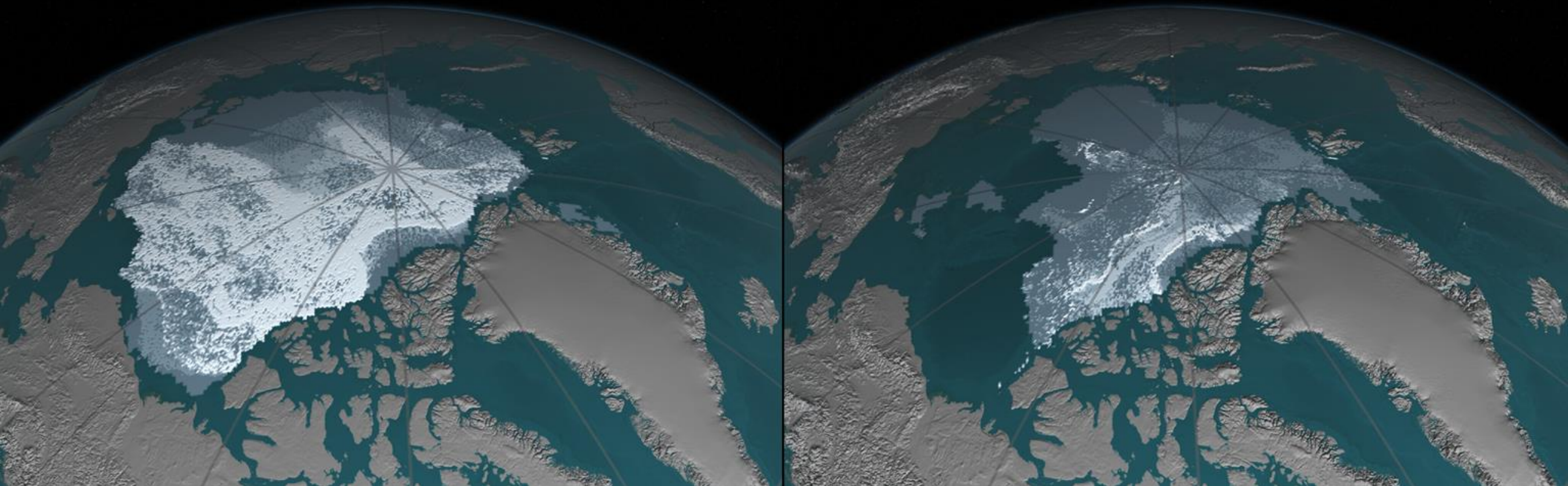


# GHG emissions and fluxes



Satellite observations and atmospheric models working together to visualise CO<sub>2</sub> emissions

Source: NASA Goddard  
[NASA | A Year in the Life of Earth's CO<sub>2</sub> - YouTube](#)



Arctic sea ice  
decline



Source:  
NASA Global Climate Change



# Deforestation in Ghana



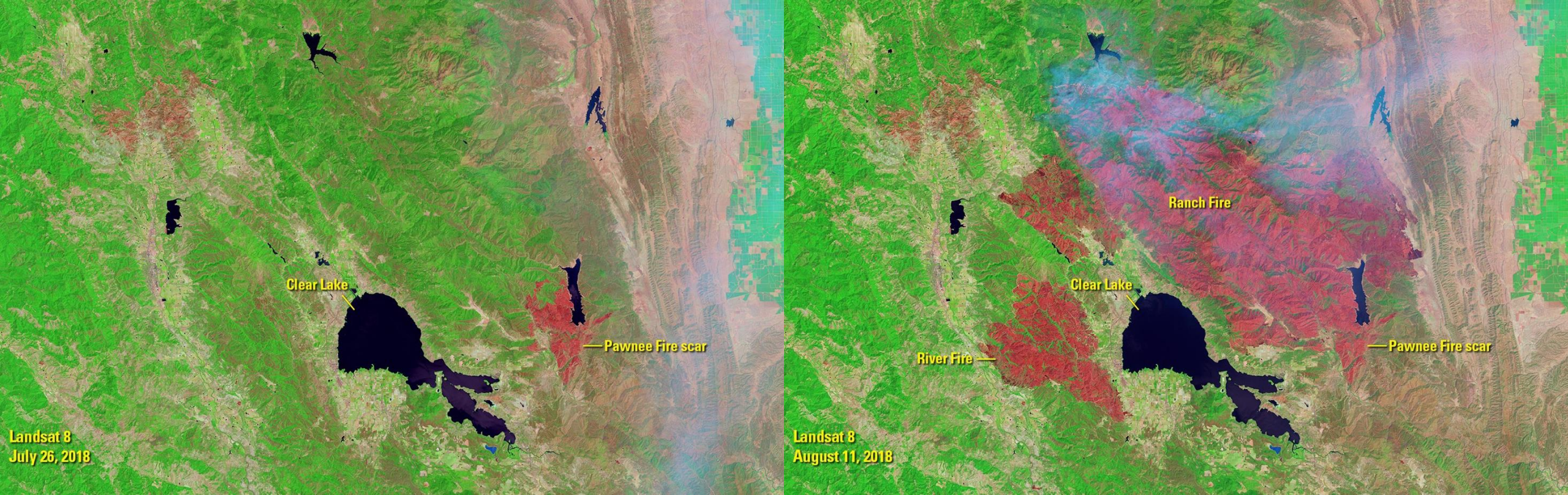
Source:  
Sentinel-2 GeoMAD



## Lake drought in Bolivia



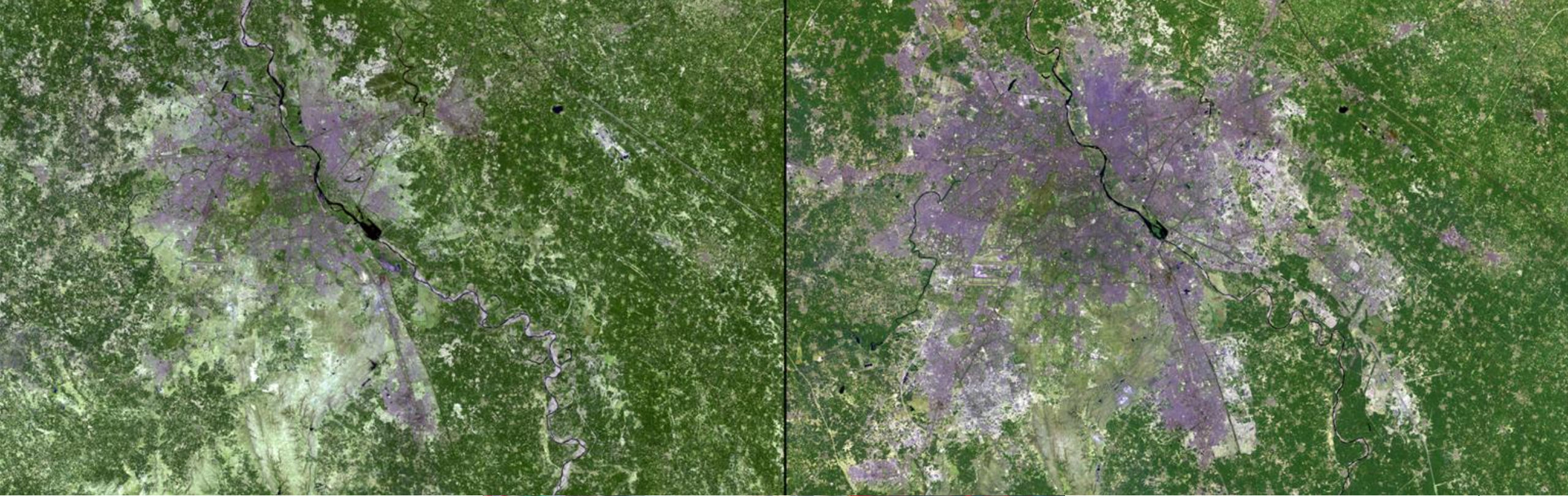
Source:  
NASA Global Climate Change



# Wildfires in California



Source:  
NASA Global Climate Change



# Urban expansion in India



Source:  
NASA Global Climate Change



# **GEO: the single largest global partnership focused on Earth observations for impact**



# About GEO



## What is GEO?

- GEO is an intergovernmental partnership for people, nature, and the planet, established in 2005.
- GEO promotes open, equitable access to Earth observation information to help decision makers understand and act on the global challenges of climate change, biodiversity loss and pollution, and achieve sustainable development.
- GEO draws expertise from an extensive global network that includes 114 governments, 162 private sector and civil society organizations and thousands of world-leading scientists.
- The GEO Secretariat is hosted by WMO.

## How does GEO work?

- GEO convenes strategic partnerships to develop solutions, based on scientific evidence, that support the implementation of national and international policies.



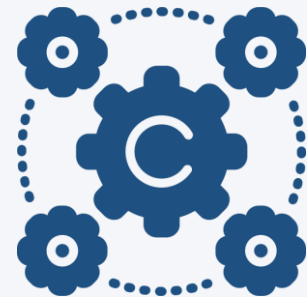
# Bridging the digital divide with open knowledge



Open Data



Open Software



Open Standards



Open Science

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# promoting PPPs



- We promote collaborations between public and private satellite data providers and governments to enhance Earth observation data collection and access



- We bring together world leading cloud service and geospatial players to help low- and middle-income countries with free licences and grants



- As we complete two decades of GEO, Public—Private Partnerships figure more and more

# Global Ecosystems Atlas

Co-developing an open online resource with explorable interface to monitor and report on the condition and change of ecosystems extent, with the goal of prompting urgent action to protect biodiversity and inform nature-based solutions to fight climate change.

