

Group on Earth Observations (GEO)
Earth observations
for accurate and
timely adaptation
action

Presented by
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GEO Secretariat

August 23, 2022
Gaborone, Botswana

NAPexpo | 2022

TRANSFORMATIONS TO ADAPT

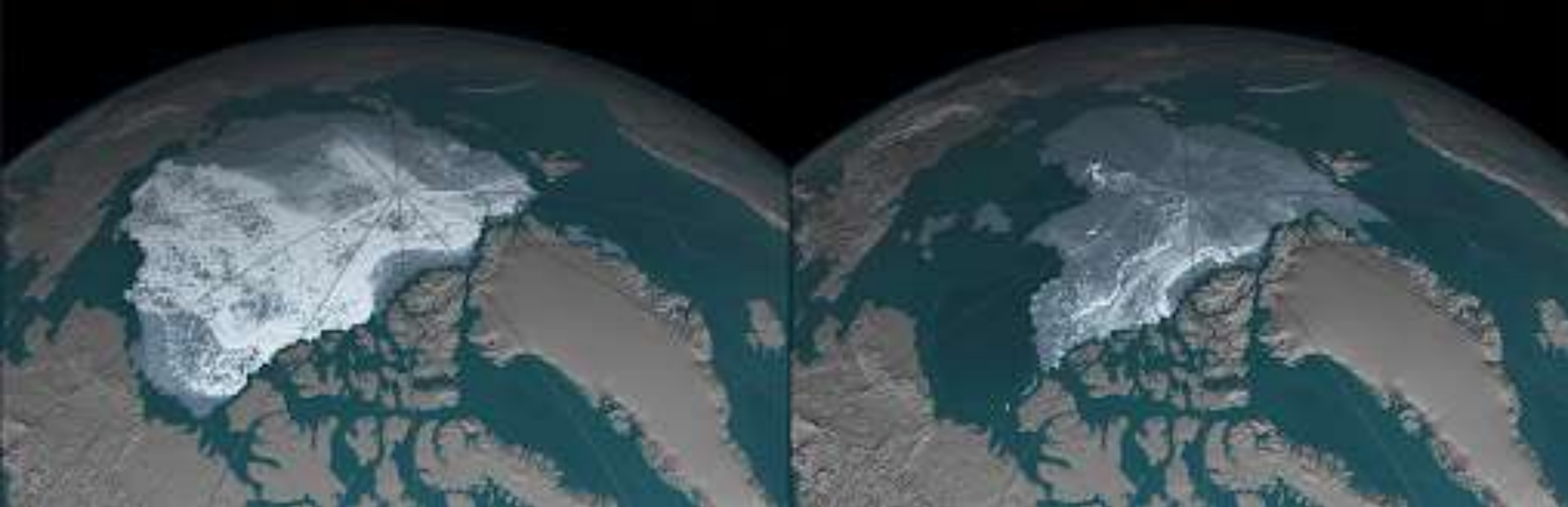


What are Earth observations?

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

This includes satellite imagery, space-based (or remotely-sensed) data, as well as ground-based (or in situ) data, collected through sensors in, on or around the Earth.





Arctic sea ice decline

Assessing climate change impact

September 1984 - September 2016



Source:
NASA Images of Change





Lake drought in Bolivia

Drought and water resources
management

April 2013 - January 2016



Source:
NASA Images of Change





Deforestation in Ghana

Forest land management and
conservation

January 2017 – January 2020

Source:
Sentinel-2 GeoMAD





Urban expansion in India

Tracking population growth

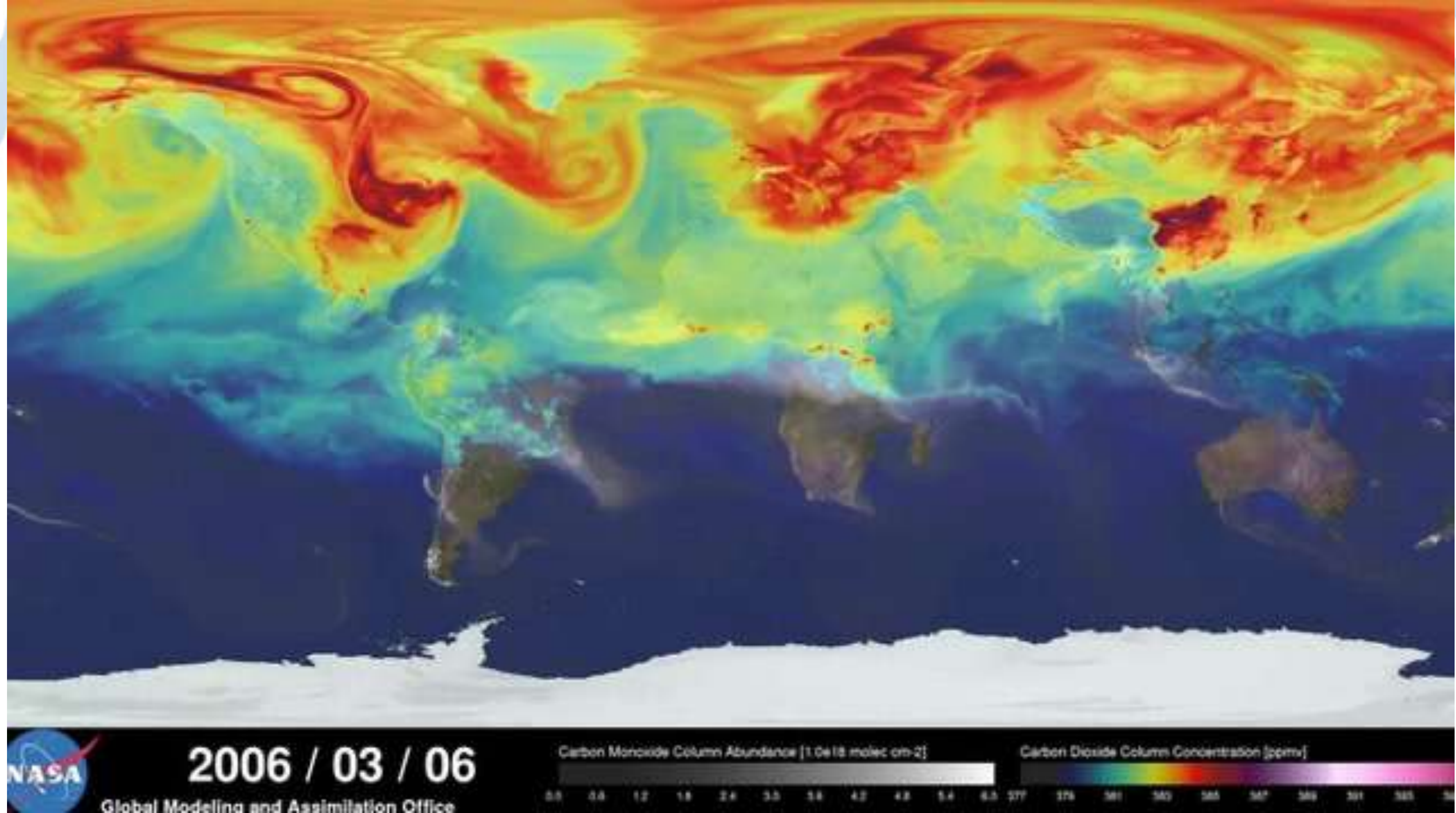
March 1991 - March 2016



Source:
NASA Images of Change



GHG emissions and fluxes

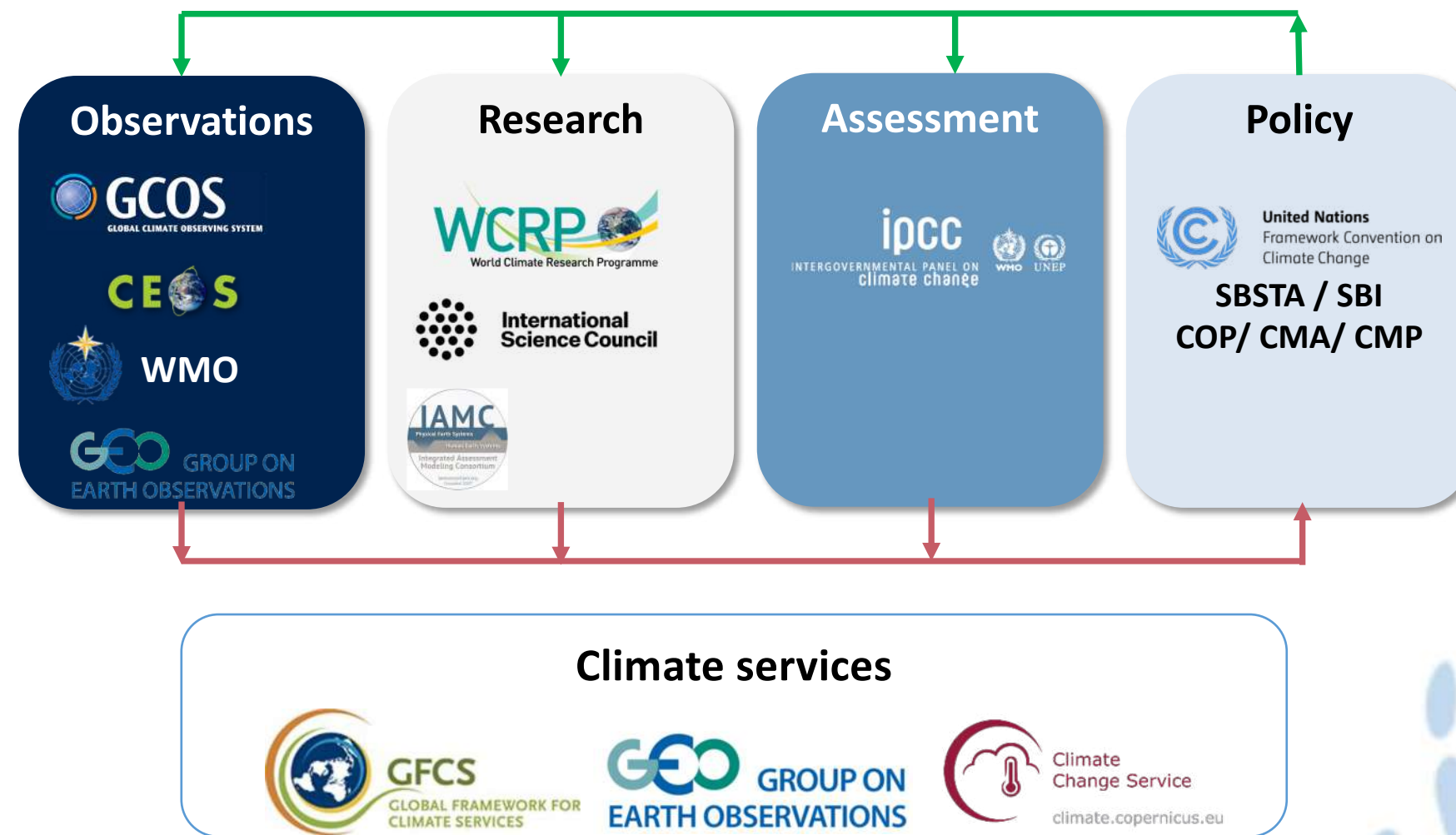


Satellite observations and atmospheric models working together to visualise CO2 emissions

Source: NASA Goddard
[NASA | A Year in the Life of Earth's CO2 - YouTube](#)

Role of Earth observations for climate policy

At the foundation of international climate policy



Article 4: Commitments

Article 5: Research and Systematic Observation



United Nations
Framework Convention on
Climate Change



Focus Areas

GEO works to improve the availability, access, understanding and use of Earth observations for the benefit of society.

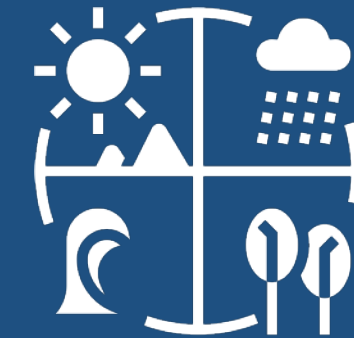
1

**Sustainable
Development**



2

Climate Action



3

**Disaster Risk
Reduction**



4

**Urban Resilience
(newest work)**





in numbers



7

CONTINENTS



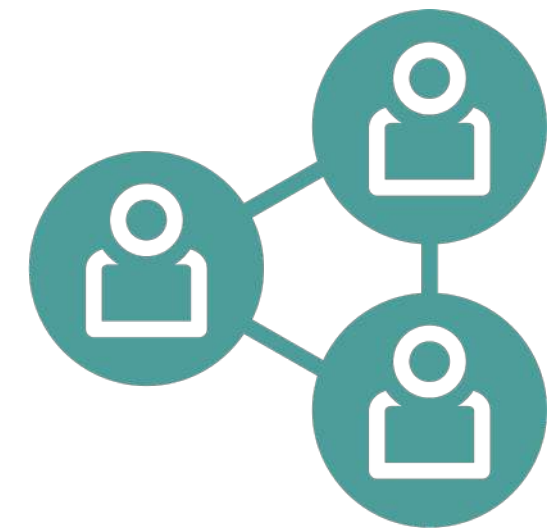
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COUNTRIES



130+

PARTICIPATING
ORGANIZATIONS



15

ASSOCIATES

Regional GEOs

AfriGEO

AfriGEO provides a framework for African countries and organizations to access, leverage and coordinate Earth observation initiatives, creating synergies and minimizing duplication for the benefit of the continent.

AmeriGEO

The AmeriGEO community promotes cooperation among the GEO members in region. Focused on capacity building to support priority areas, this network is contributing to local, regional and national activities.

AOGEO

AOGEO coordinates activities in the Asia Oceania region with the aim to strengthen regional activities, support GEO's Foundational Tasks and deliver Integrated Priority Studies for the region.

EuroGEO

EuroGEO improves coordination among the members from Europe with a regional framework to promote the use of Earth observation data to improve the lives of citizens and guide evidence based decisions.



Supporting national adaptation action

- GEO supplemental technical guidance helps LDCs and other developing countries to **integrate climate science Earth observation information, data, tools into their NAPs**
- Multiple challenges and sectors for NAPs: coastal zones, water management, health, etc... **GEO guidance will cover different sectors based on the experience of GEO initiatives**



NAP GUIDELINES





GEO's presence at

NAPexpo | 2022
TRANSFORMATIONS TO ADAPT

Mon 22 Aug

14:00 – 15:30 PARALLEL SESSION: NAP project development support: focus on regional and national crop monitors; and managing risks from climate extremes (NAP Technical Working Group)

Tue 23 Aug

11:00 – 12:30 PARALLEL SESSION: Earth observations for accurate and timely adaptation action (GEO)

Wed 24 Aug

16:00 – 17:30 NAP INTERACTIVE Session: Working with geospatial data (GEO, LEG)

Thu 25 Aug

11:00 – 12:30 PARALLEL SESSION: An interactive, bottom-up engagement with LDCs with coastlines, Coastal adaptation for LDCs: the need for supplementary material to the NAP technical guidelines (GERICS, WMO, GEO)

About this session

Presentations

10 min technical presentations by GEO initiatives working with Earth observations to support adaptation in different sectors

Experiences

Country representatives will share their experience with GEO initiatives on the ground

Open discussion

An open discussion will enable questions from the audience and considerations by the panelists





Makabe Esther
Project Coordinator



Jane Kioko
Head of Food Crops
Statistics
Ministry of Agriculture
Kenya



Calvince Akello Wara
Thematic Lead



Emily Smail
Executive Director



Zviko Mudimu
Head of Operations



Kelebogile Mfundisi
Researcher
University of
Botswana

Objectives for this session

#1

Showcase examples of practical applications, **ways of integrating Earth observation into NAPs** for technical implementation and monitoring

#2

Discuss how to link Earth observation initiatives with **Green Climate Fund projects**, to scale up implementation of activities in Africa and LDCs

#3

Discuss interest in creating a **Community of Practice on Earth observations** within the UNFCCC NAP process to enable continued exchange and support

Meet us at the GEO booth

For any questions and information.



Website

www.earthobservations.org

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GEO WEEK 2022

Global Action for Local Impact

31 October - 04 November 2022 | Accra, Ghana

