



# Climate change

**Copernicus for SDGs**

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CLIMA**

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# International conventions and bodies

- *Chef de file/focal point*
  - **UNFCCC**
  - **Montreal Protocol**
  - **ICAO (emissions monitoring, market-based mechanisms)**
  - **IMO (emission reduction from ships)**
- *Associated/consulted*
  - **UNCBD**
  - **UNCCD**
  - **UNFF**
  - **IPCC**



# The Paris Agreement

- **Ambitious long-term goals**
  - limit temperature increase well-below 2°C
  - pursue 1.5°C
- **Universal agreement based on more than 190 nationally determined contributions (NDCs)**
  - "Bottom-up" approach where all countries define their contributions
  - Contrary to Kyoto-Protocol where targets were defined "top-down,,
- **Paris Rulebook from COP24 in Katowice**
  - General binding set of rules for all parties

Ratification by  
>140 States

Global Climate  
Action Agenda

**e.g. 4/1000 initiative**

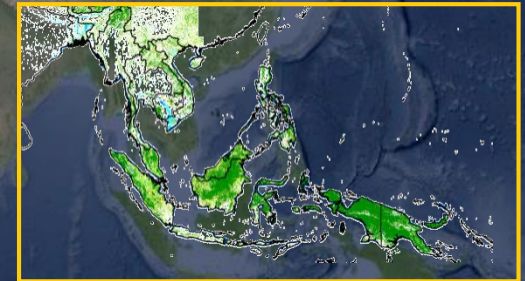
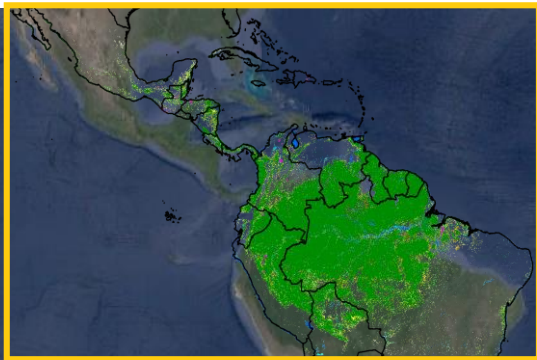
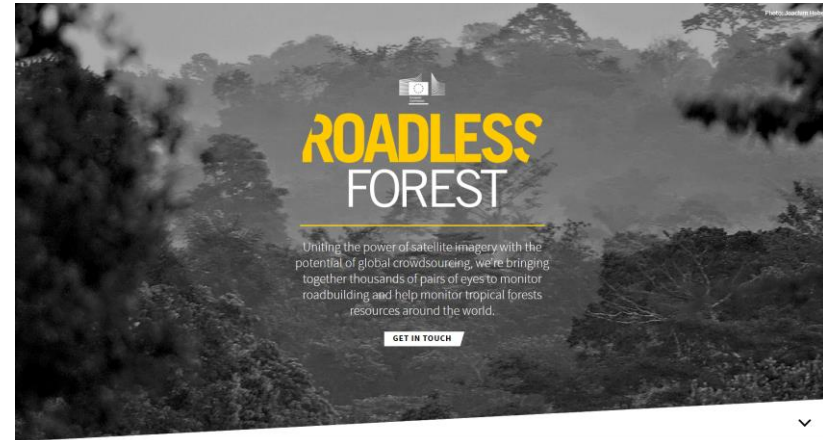
**Paris  
Agreement**

Cities and Regions  
- Covenant of  
Mayors

Private business

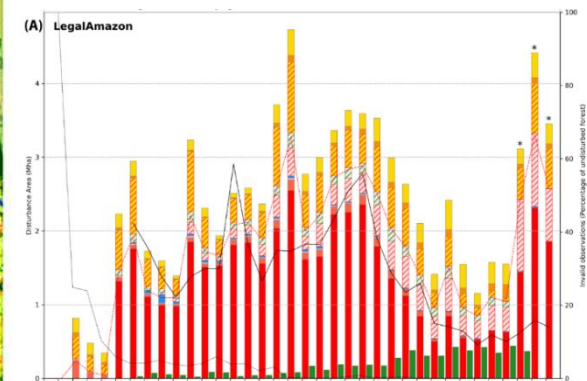
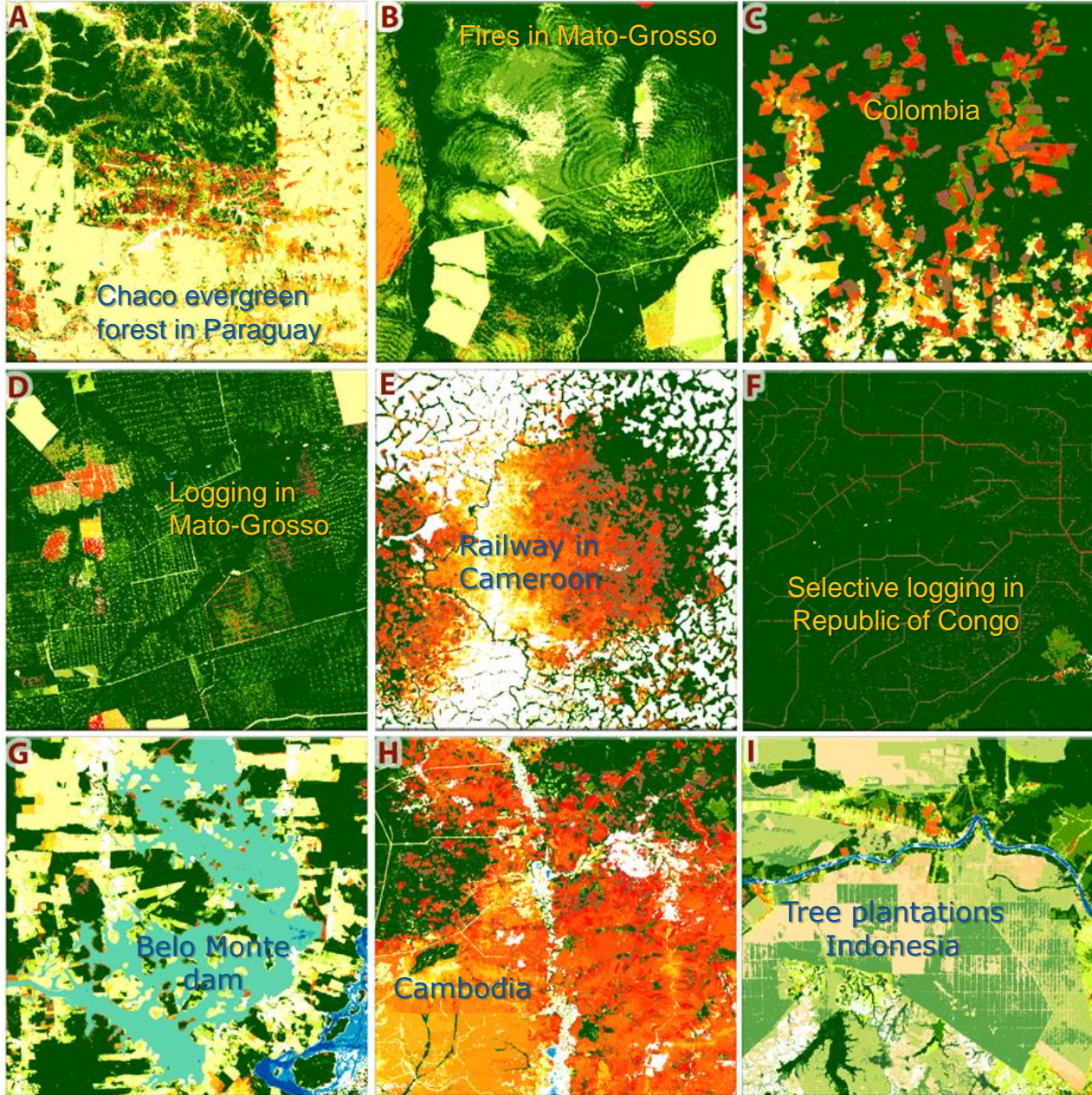
# Example: ROADLESS-FOR: Mapping undisturbed tropical humid forests

- Pan-tropical wall-to-wall monitoring system (1982-2017) of tropical humid forests at 30 m (Landsat)
- Financed by EP
- Managed by DG CLIMA
- Carried out by JRC





# Patterns of forest cover disturbances (deforestation and degradation)





## Example: Sentinel 2 mosaics





# Example: Implementation of EU LULUCF Regulation

- **LULUCF Regulation (EU 2018/841) requires the use of IPCC approach 3 (=geospatially explicit) for reporting on key categories of emissions and removals**
- **Copernicus uptake through**
  - **Pan-EU data sets (HRL, CLC+, conformity to IPCC definitions)**
  - **Caroline Herschel FPA**



**Global**



**Pan-European**



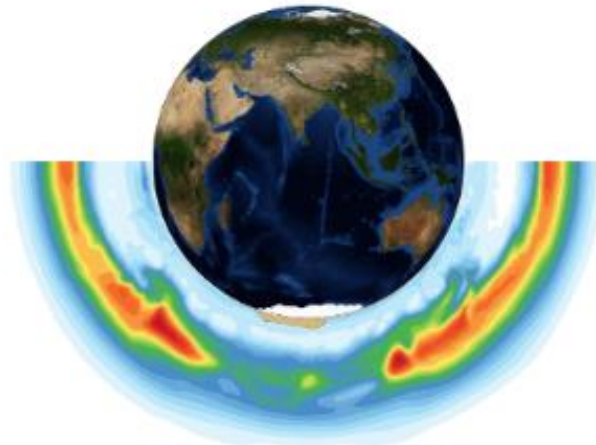
**Local**



**Imagery and reference  
data**

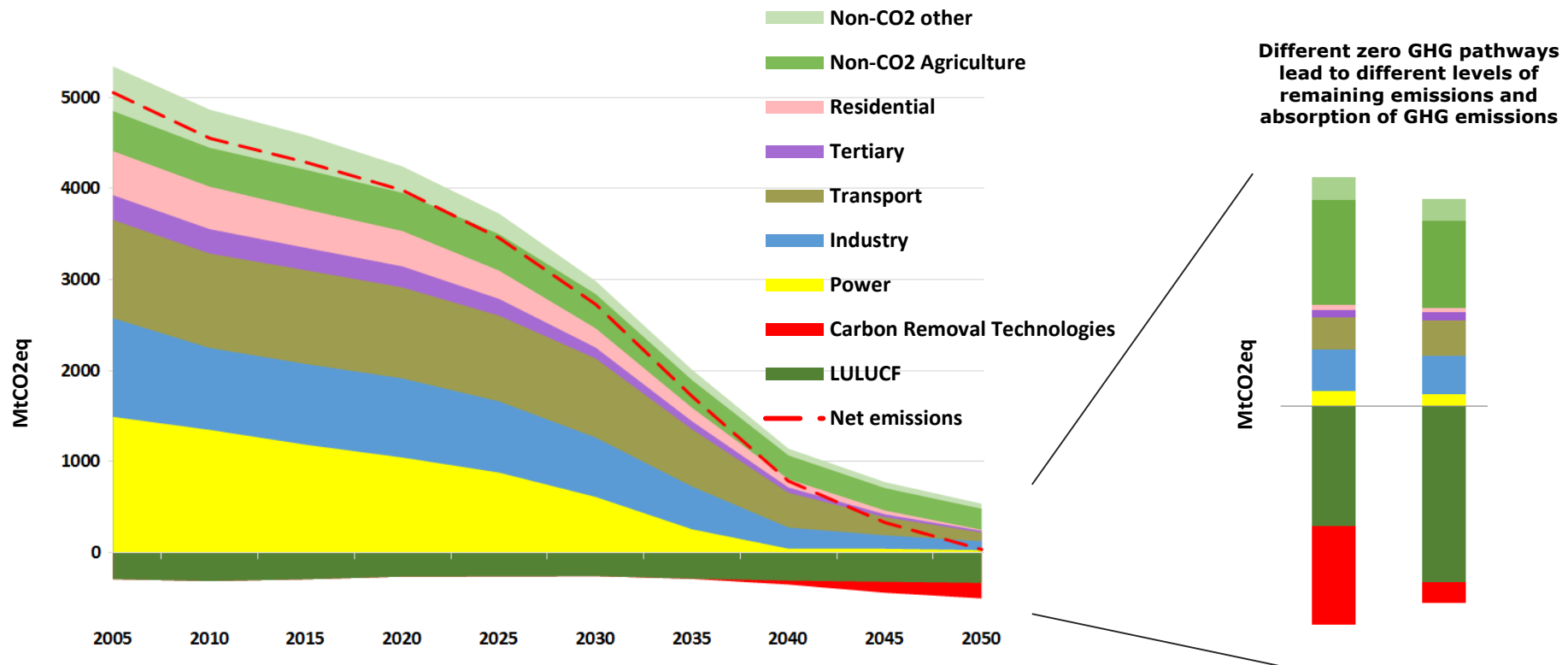
## Example: Implementation of the Montreal protocol

- *Phasing out of Ozone depleting substances*
  - **Shift from HCFC and CFC (O3 depletion and GHG) to mainly HFCs (only GHG)**
  - **Since 2016 also global phasing down of HFCs (Kigali Amendment to the Montreal Protocol)**
- **Current data on ozone hole from NASA**
- **Discussions ongoing to use Copernicus data and services**



# Vision for a Clean Planet by 2050

*There are a number of pathways for achieving a climate neutral EU, challenging but feasible from a technological, economic, environmental and social perspectives.*





# Thank you!

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