The EU Deforestation-free Regulation
A highlight of the Green Deal



Scientific community | European societal impact | Support to policy | Capacity of EU Member States | International dimension

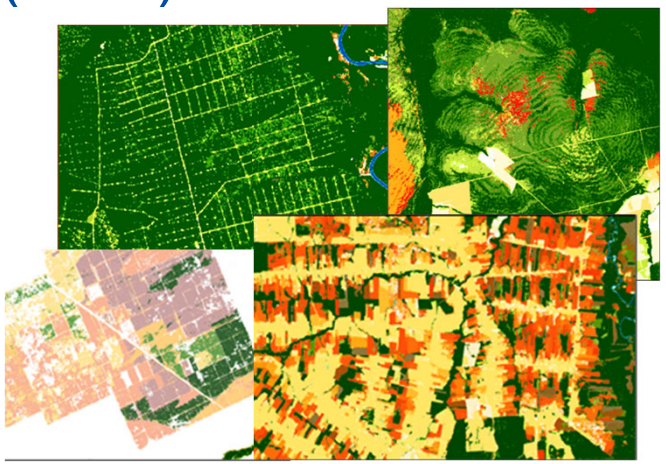
EUI, 6 June 2024

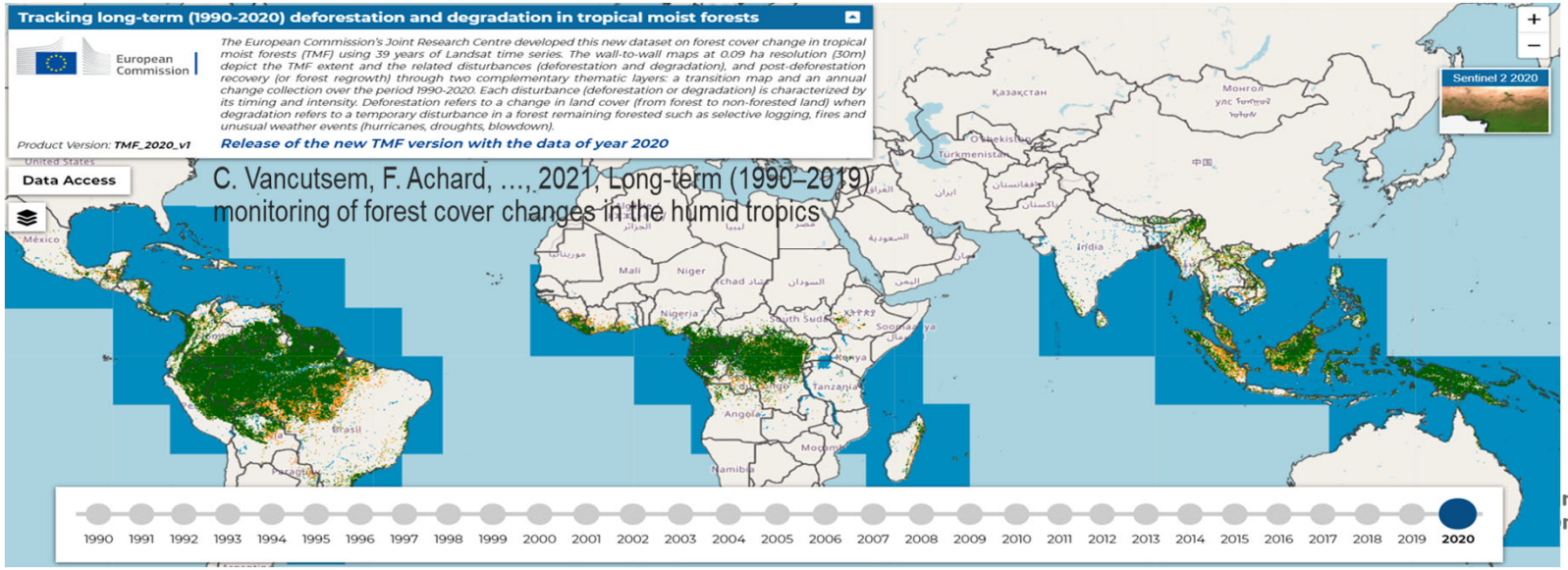
Frederic Achard, Rene Colditz,
Greet Janssens-Maenhout


Scientific community
European societal impact
Support to policy
Capacity of EU Member States
International dimension

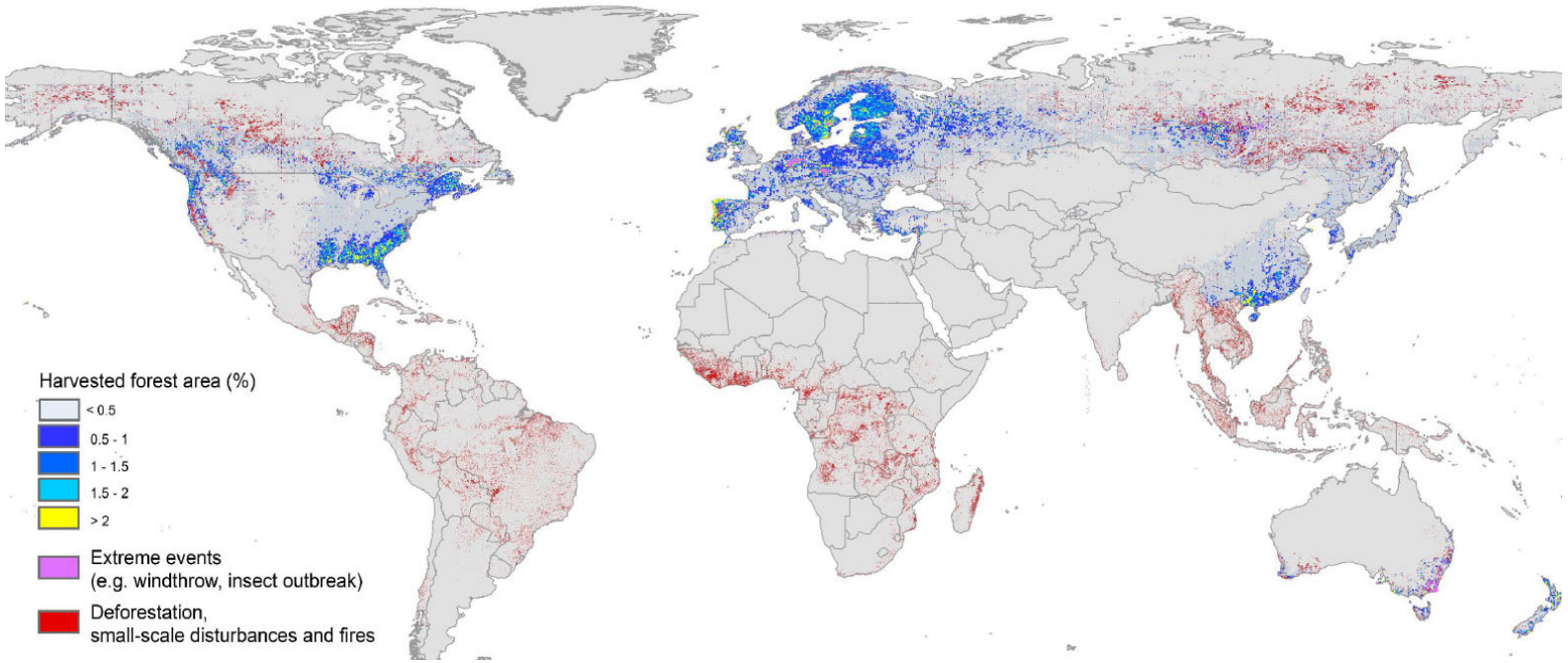
Tropical Moist Forest tool (TMF)

- Evergreen forest **dynamics** (from full Landsat archive)
- Wall-to-wall maps of tropical evergreen forest at 30-m res.
  - Identification of changes: **regrowth, deforestation, degradation**
  - **Extent of the tropical moist forest** for each year
  - **Characterization of forest cover disturbances by their timing**, intensity and sequential dynamics
  - Identification of tree plantations areas & changes





Global map of forest harvest rates & deforestation for the year 2020



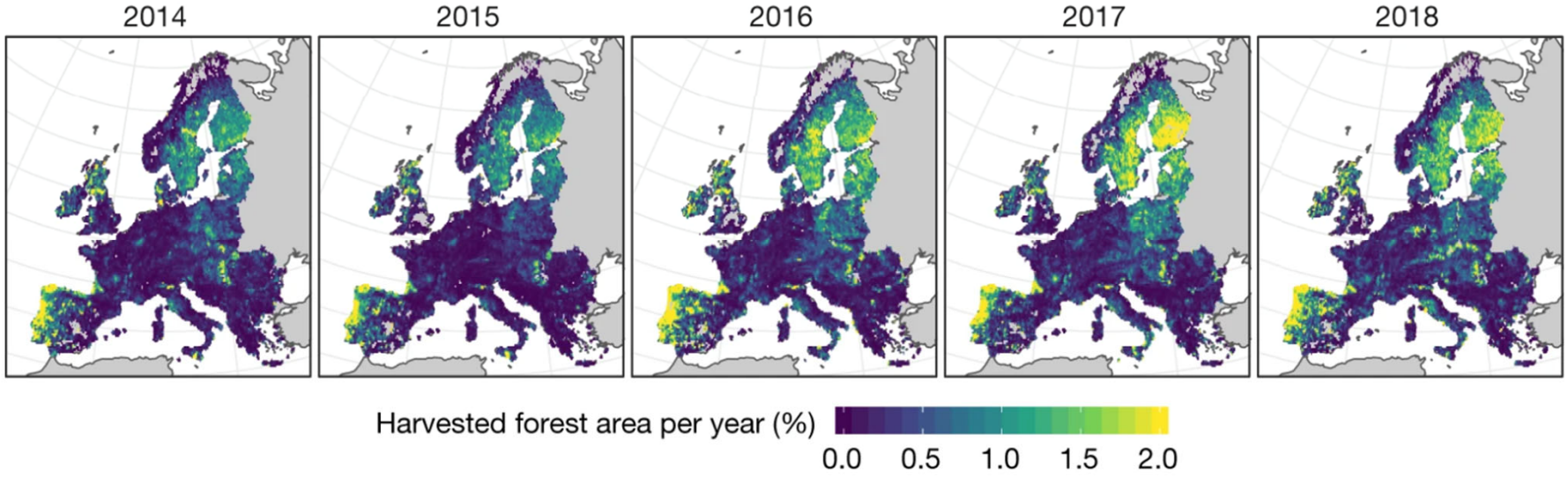
C. Bourguoin, G. Ceccherini et al., Nature 2024 forthcoming

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Article | Published: 01 July 2020

Abrupt increase in harvested forest area over Europe after 2015

Guido Ceccherini ✉, Gregory Duveiller, Giacomo Grassi, Guido Lemoine, Valerio Avitabile, Roberto Pilli & Alessandro Cescatti



EDITORIAL | 01 July 2020

How Europe can fix its forests data gap

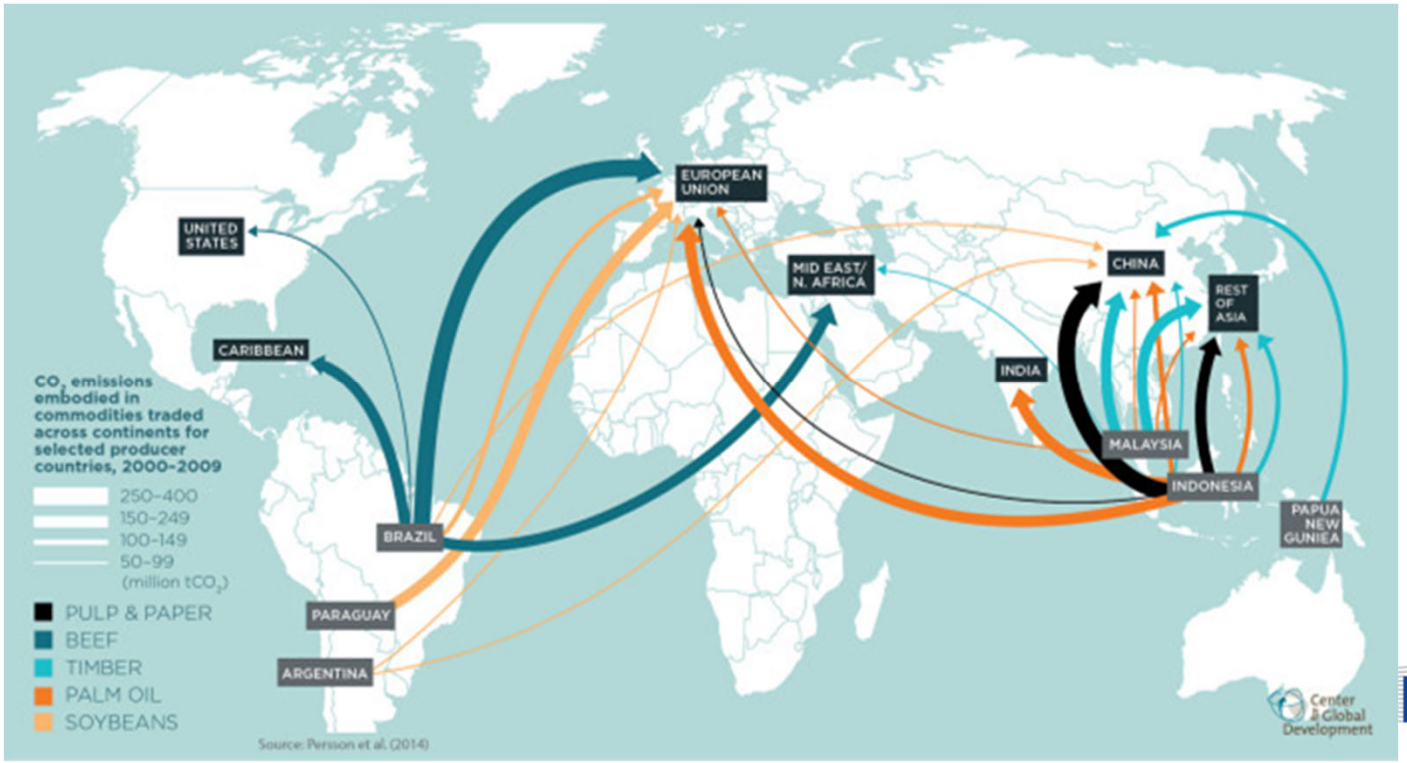
The European Union must improve how it collects forest data, which are essential to its ambitions in biodiversity and climate change.


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Matters Arising | Published: 28 April 2021
Concerns about reported harvests in European forests
Marc Palahí, Rubén Valbuena, […]Gert-Jan Nabuurs
Matters Arising | Published: 28 April 2021
Quantifying forest change in the European
Iddo K. Wernick, Philippe Ciais, Jonas Fridman, Peter Högberg, Kari T. Korhonen, Annika
& Pekka E. Kauppi
Nature 592, E13–E14 (2021) | Cite this article
2286 Accesses | 2 Citations | 7 Altmetric | Metrics
Matters Arising | Published: 28 April 2021
Reply to Wernick, I. K. et al.; Palahí, M. et al.
Guido Ceccherini, Gregory Duveiller, Giacomo Grassi, Guido Lemoine, Valerio Avitabile, Robe
Pilli & Alessandro Cescatti
Nature 592, E18–E23 (2021) | Cite this article
SKOGSSTYRELSEN
SWEDISH FOREST AGENCY
Swedish Forest Agency › News › Incorrect figures on harvested forests in Nature article
Incorrect figures on harvested forests in Nature article
Questionable study on forest harvests in Europe: A critical response by the European National Forest Inventory Network
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Statistics
A new article in the journal Nature overestimates the increase of forest harvesting in Europe


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Monitoring Trade Component

- Monitoring production and trade flows of commodities and products associated with deforestation
- Wood, soybeans, coffee, cocoa, palm oil, and cattle (including beef)



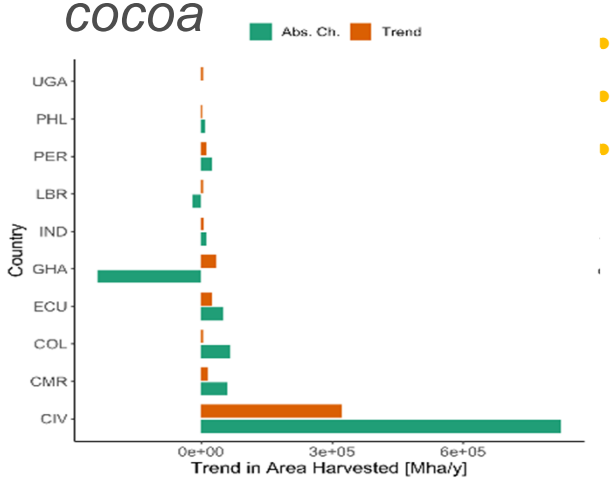
EU consumer takes up responsibility for emissions from deforestation

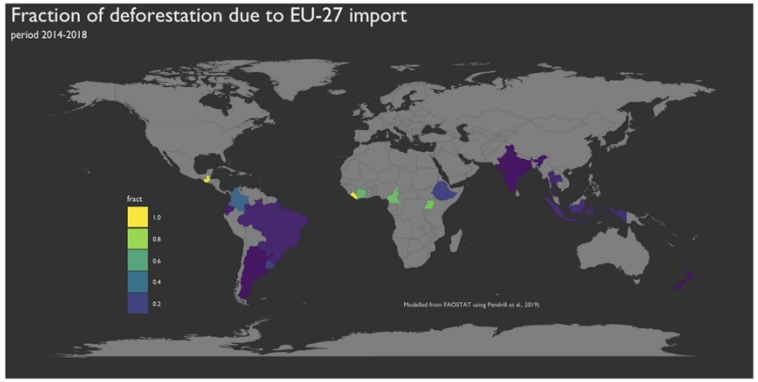
By Centre for Global Development

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Deforestation embodied in trade of risk commodities

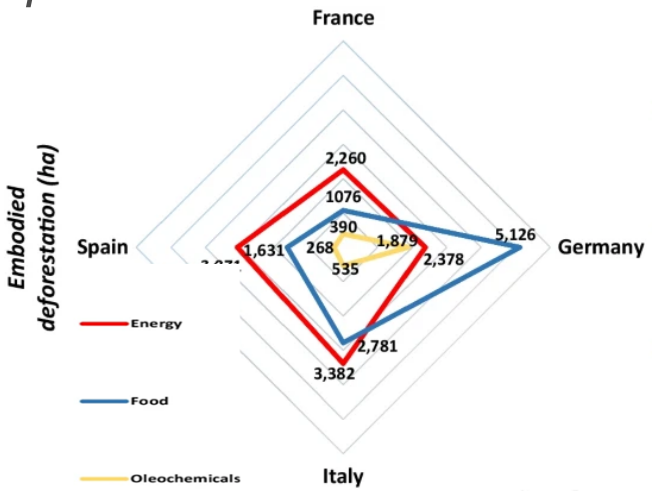
cocoa





- Land footprint model
- Attribution scheme (share of EU27)
- Land use balance model (forest losses vs crop and plantation expansion)

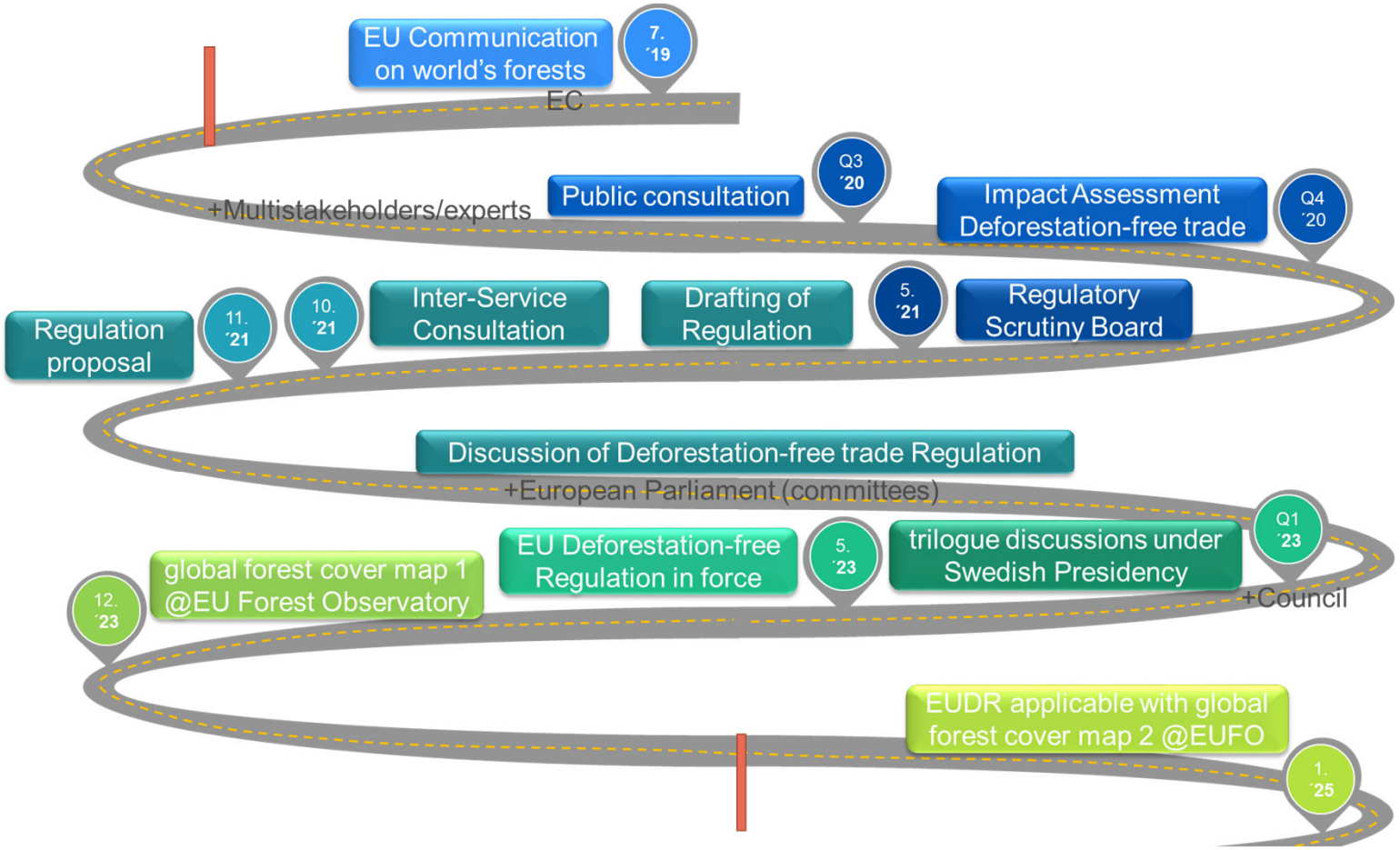
palm oil



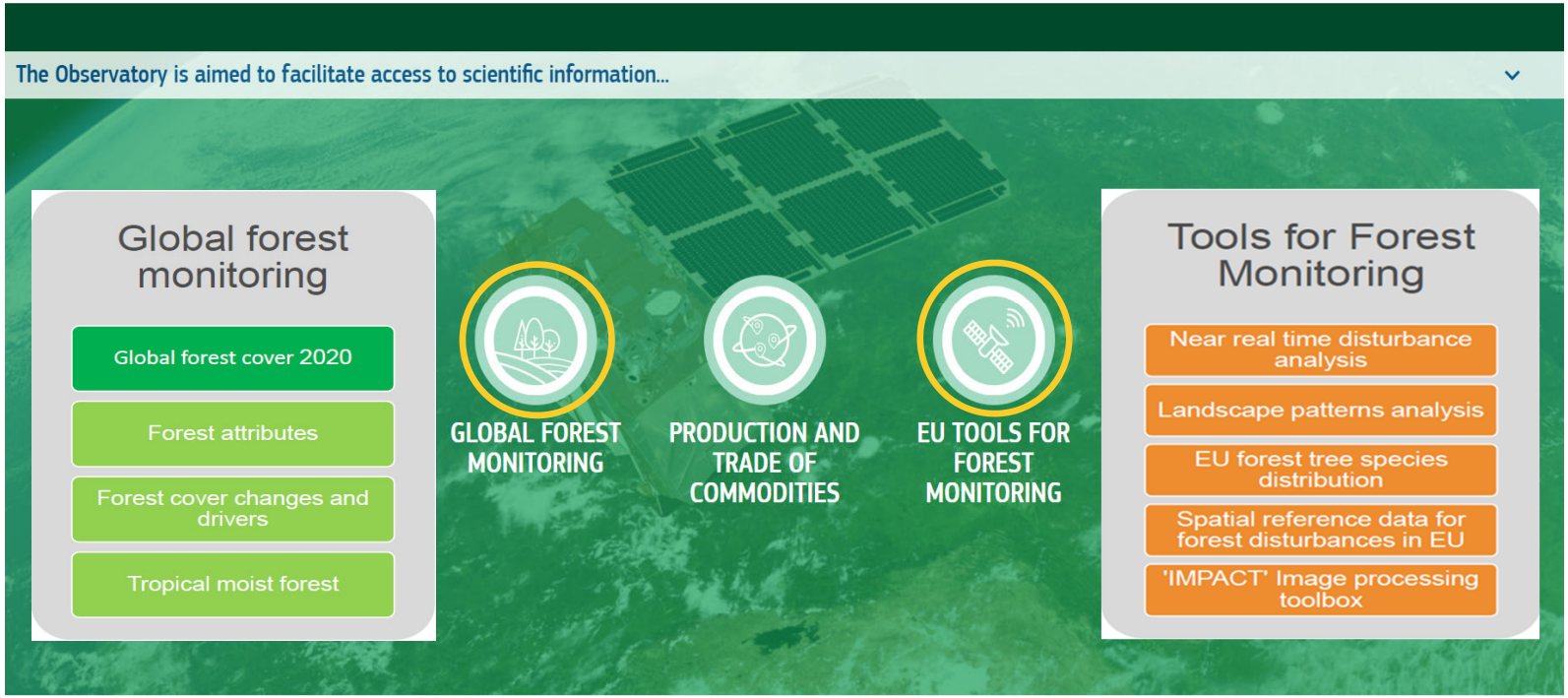
G. Bausano, ...M Migliavacca, 2023, Food, biofuels or cosmetics? Land-use, deforestation and CO2 emissions embodied in the palm oil consumption of 4 EU MS


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EU Deforestation-free Regulation (EUDR)



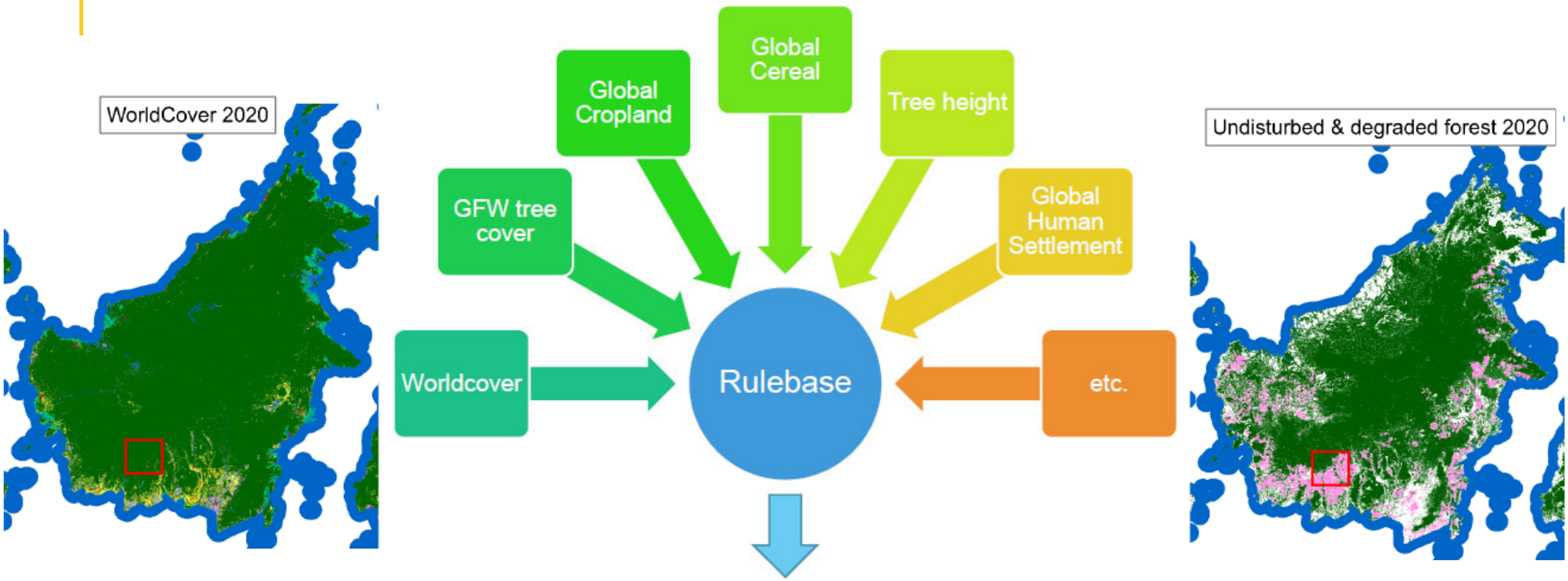
EU observatory deforestation& forest degradation
forest-observatory.ec.europa.eu



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The Global Forest Cover Map 2020

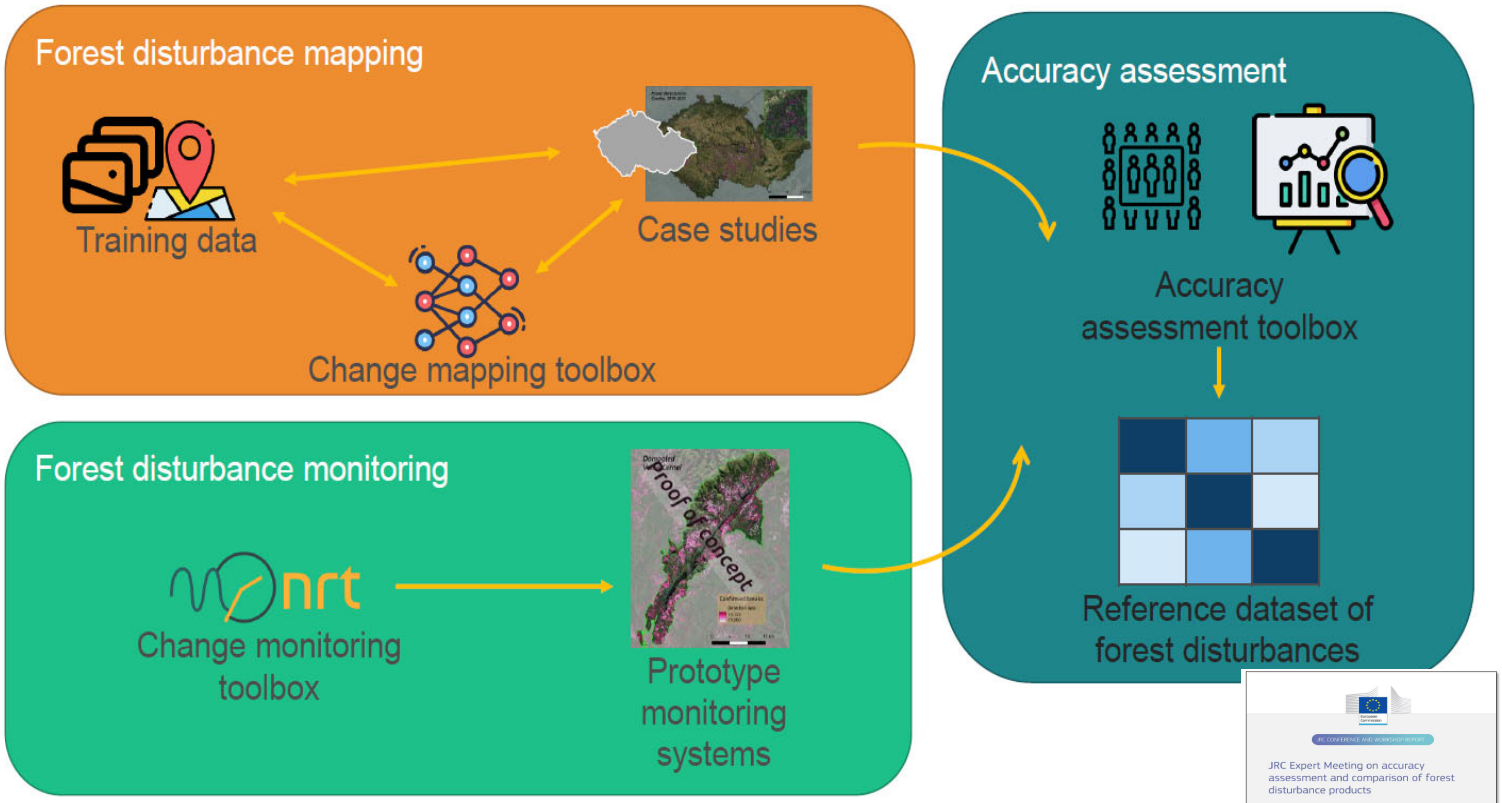


Global forest cover map of standing trees at 10m resolution for year 2020

+ Use reference data for calibration/validation

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Tools for EO-informed disturbance monitoring



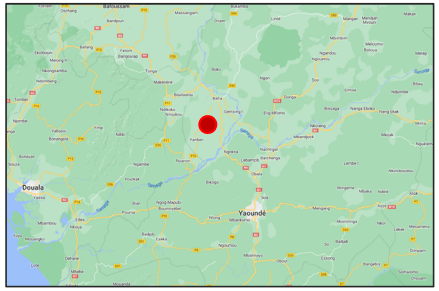


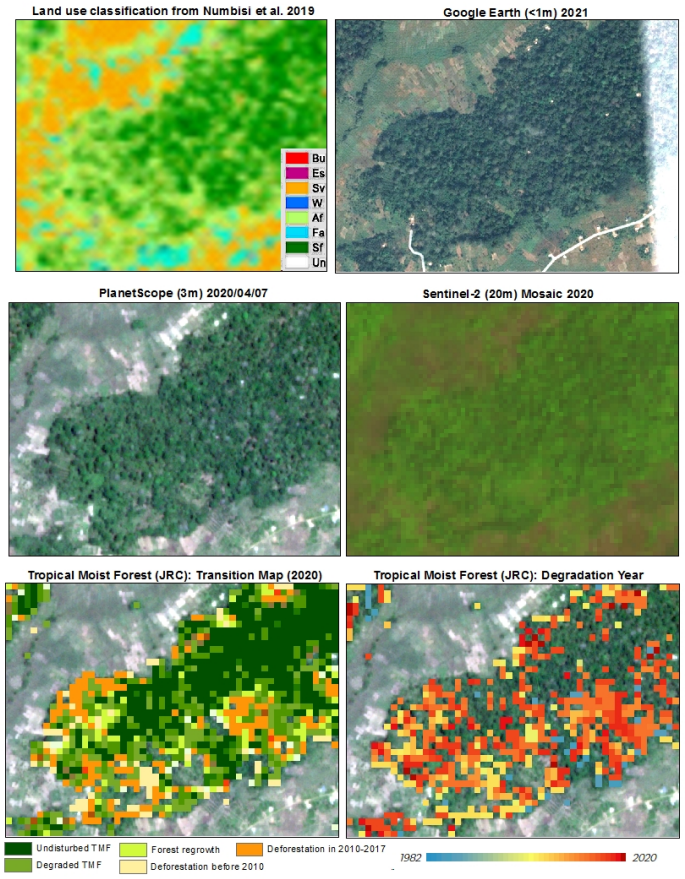
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Agroforestry of cocoa in Cameroon

Central Cameroon
(c 60 km North of Yaoundé
Long: 11°10' E ; Lat : 4°34' N)





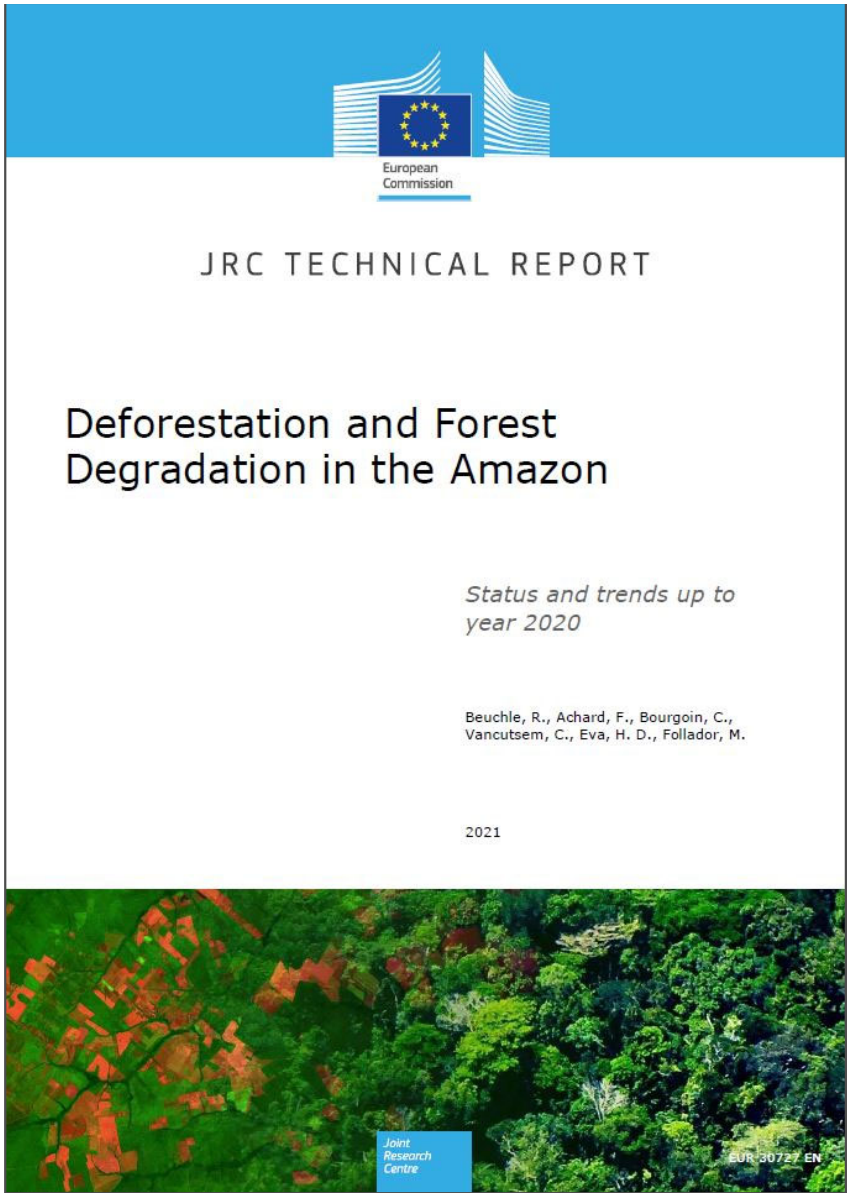
Land cover map in first panel
- light green = Perennial cocoa agroforests
- dark green = Transition / Secondary forests

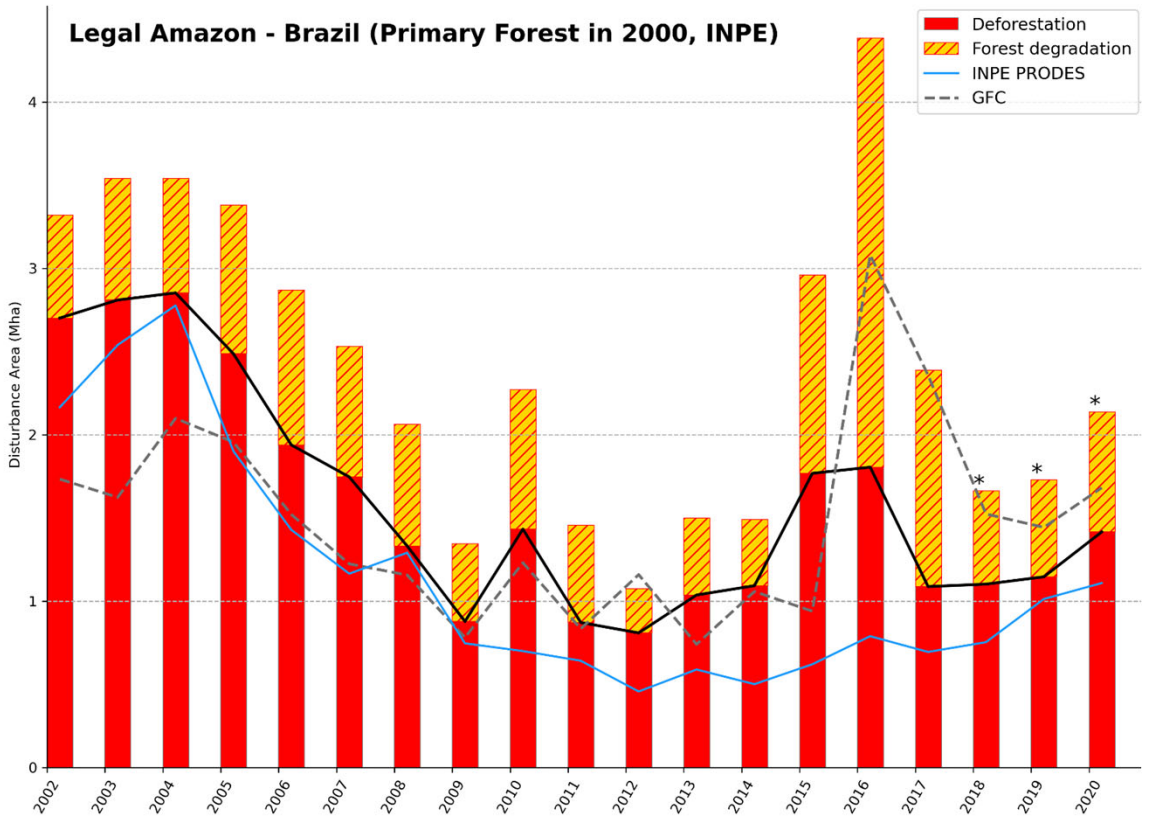
Source: Numbisi et al 2019

Optical satellite images in panels 2 -4 :
- Google Earth in 2021 at < 1 m res.
- Planetscope at 3 m res. from 07/04/2020
- Sentinel-2 composite of year 2020 at 20 m res.

JRC TMF maps show historical disturbances in the forest cover before year 2020

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Available at:
https://publications.jrc.ec.europa.eu/repository/handle/JRC124955

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Thank you
http://forest-observatory.ec.europa.eu
Greet.Maenhout@ec.europa.eu