



Comparing National Forest maps and JRC Global Forest Cover map of year 2020 to support EUDR

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Methodology for GFC2020

Elements in V1

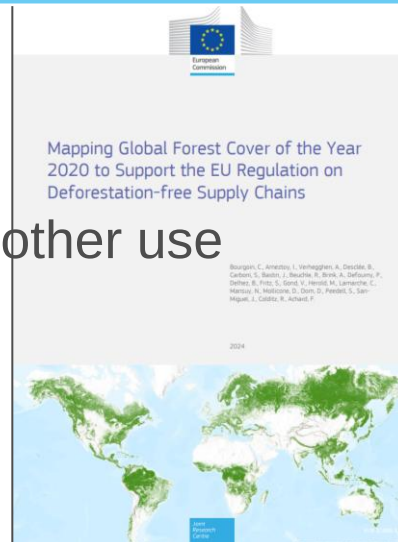
Improvements in V2

1. Setting up the maximum extent of potential forested land

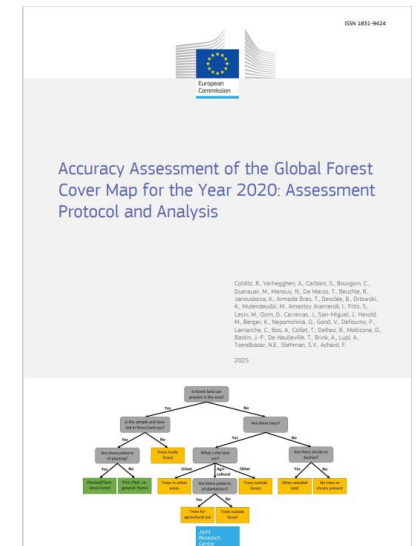
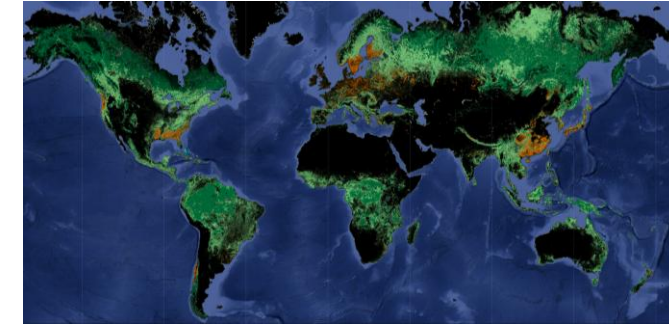
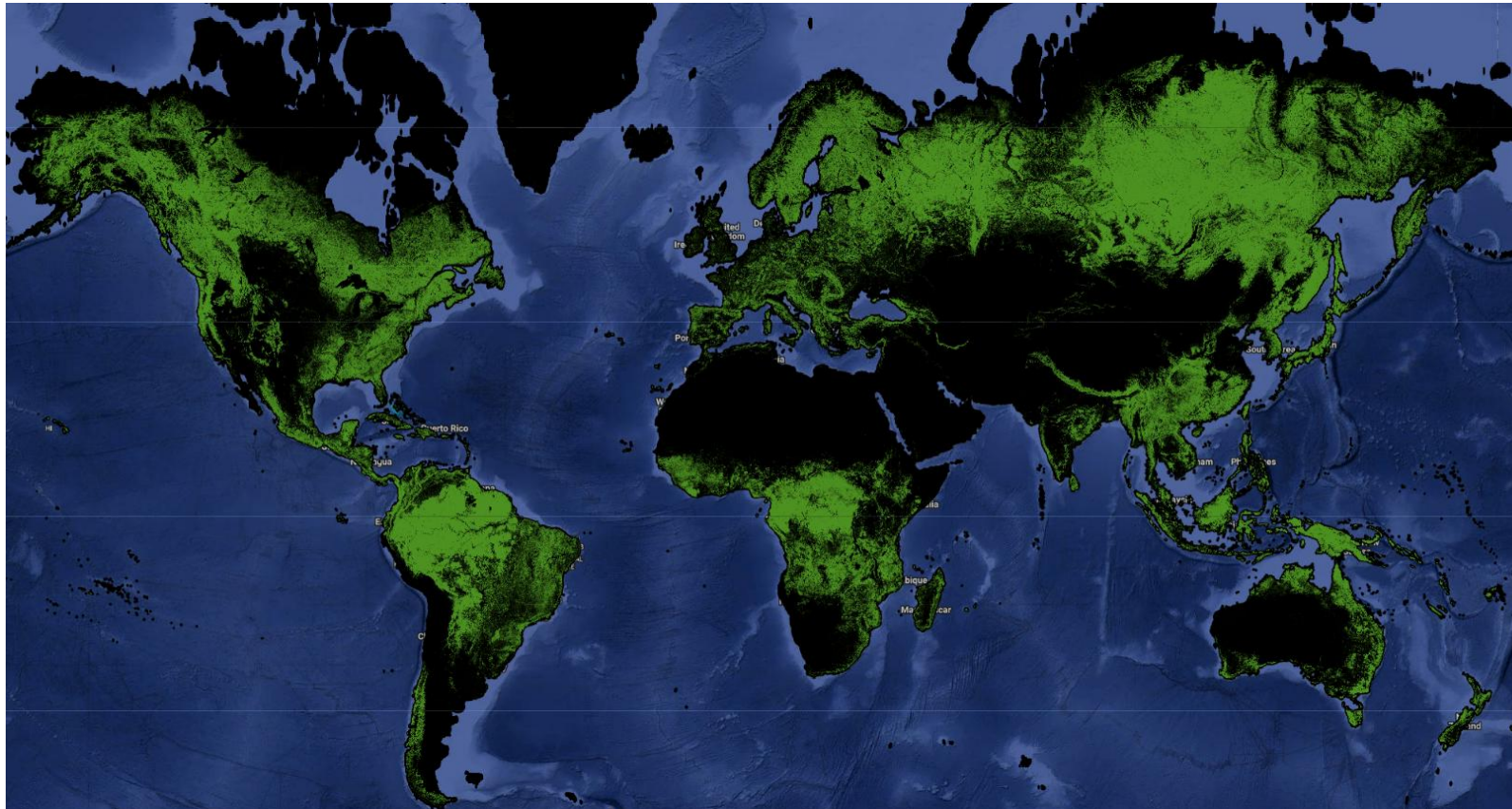
- Tree cover
- Mangrove
- Unstocked forest
- Secondary and low density forest

2. Limiting to actual forest by excluding non-forest land

- Tree height
- Agricultural use
- Cropland
- Urban areas and other use
- Water
- Improvements for agricultural tree plantations e.g. via "commodity layers"
- Improvements in croplands, barren land and snow, water wetland
- Shifting cultivation
- Forest in urban areas
- Mines



Map of Global Forest Cover for year 2020 (V2)



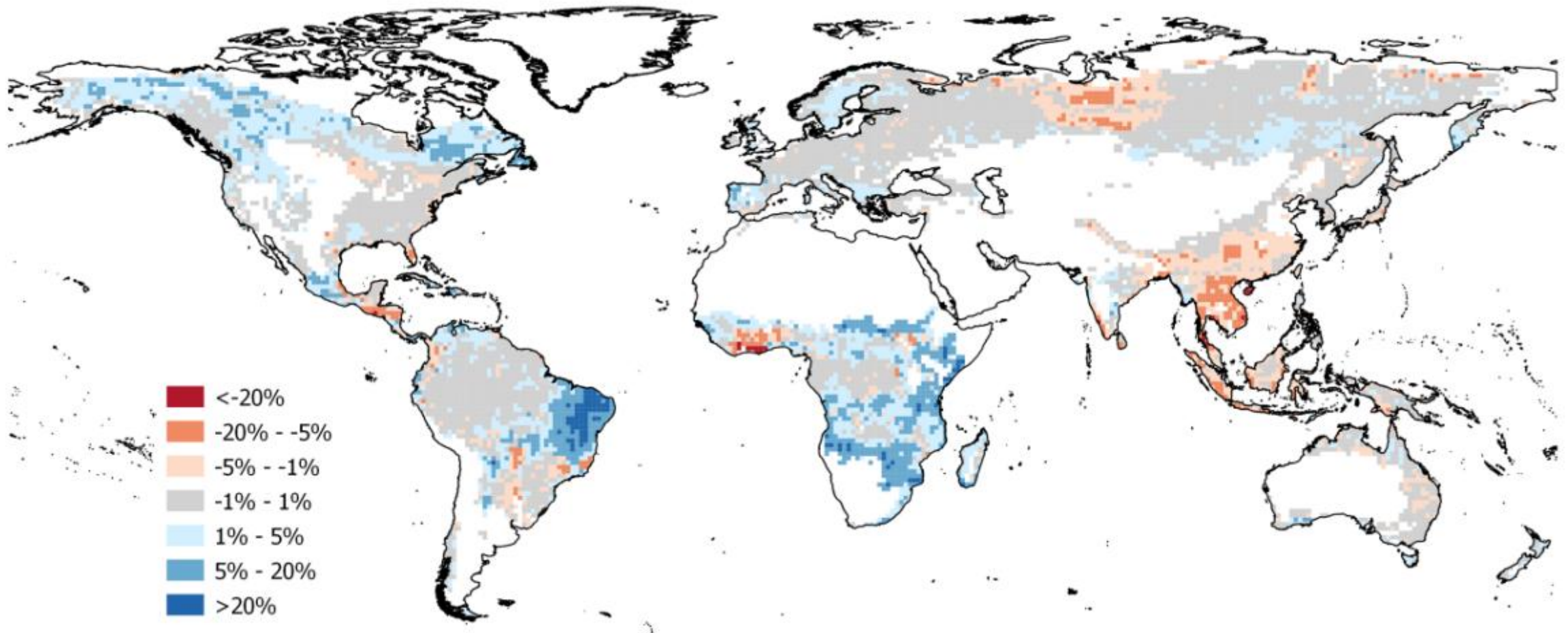
Global forest area

- GFC 2020 V2: 4,549 Mio ha
- FAO-FRA 2020: 4,058 Mio ha

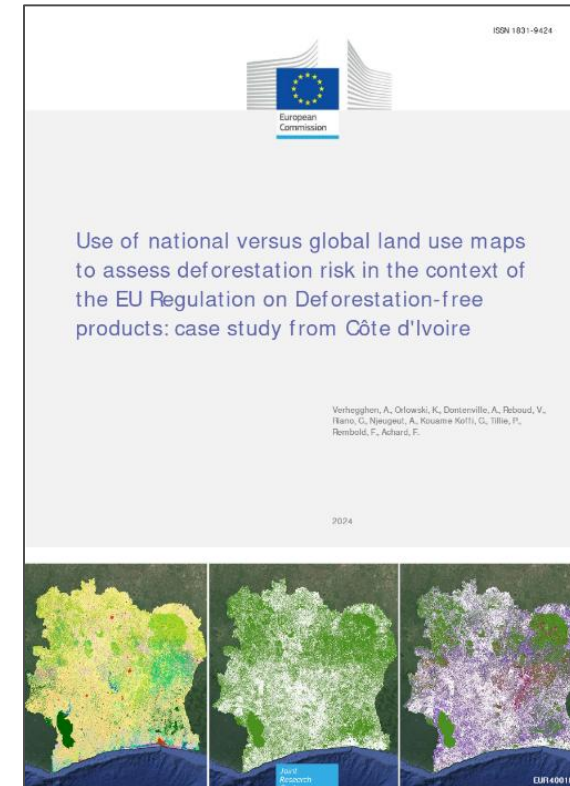
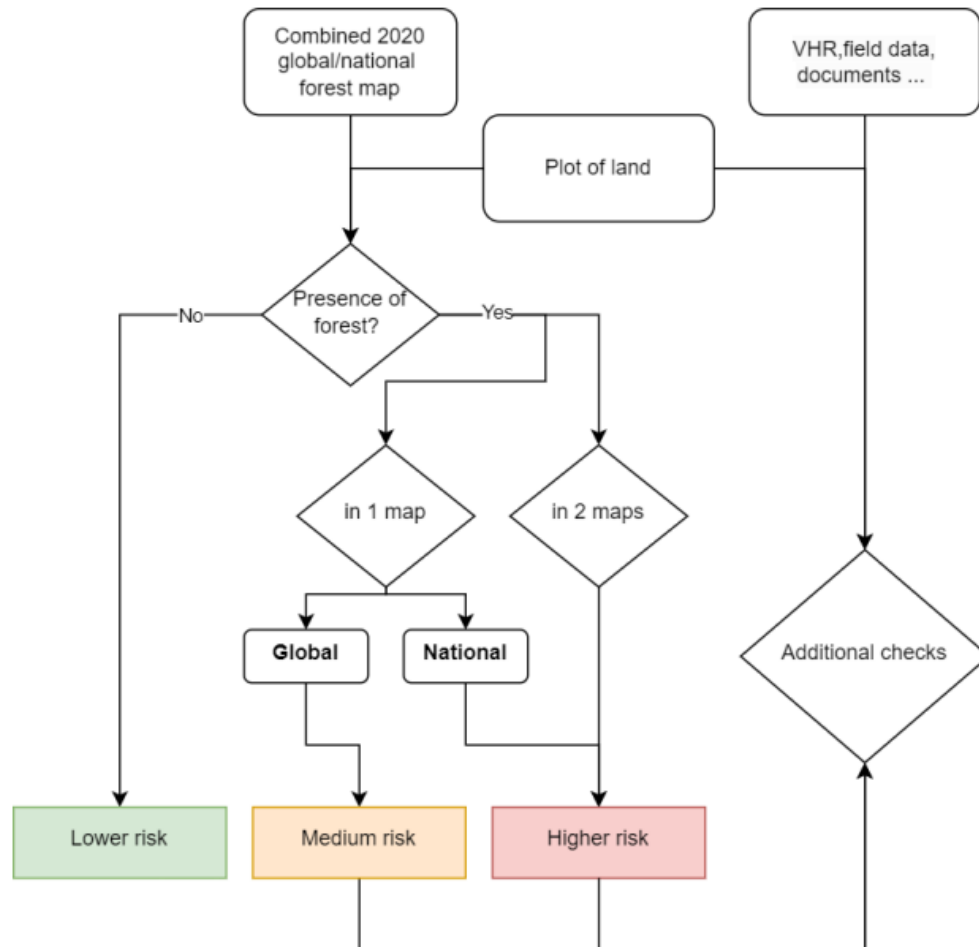
Map assessment

- Overall map accuracy: ~91%
- Forest: ~8% Omission, ~18% Commission

Area comparison with GFC2020 V1 (1° cell)

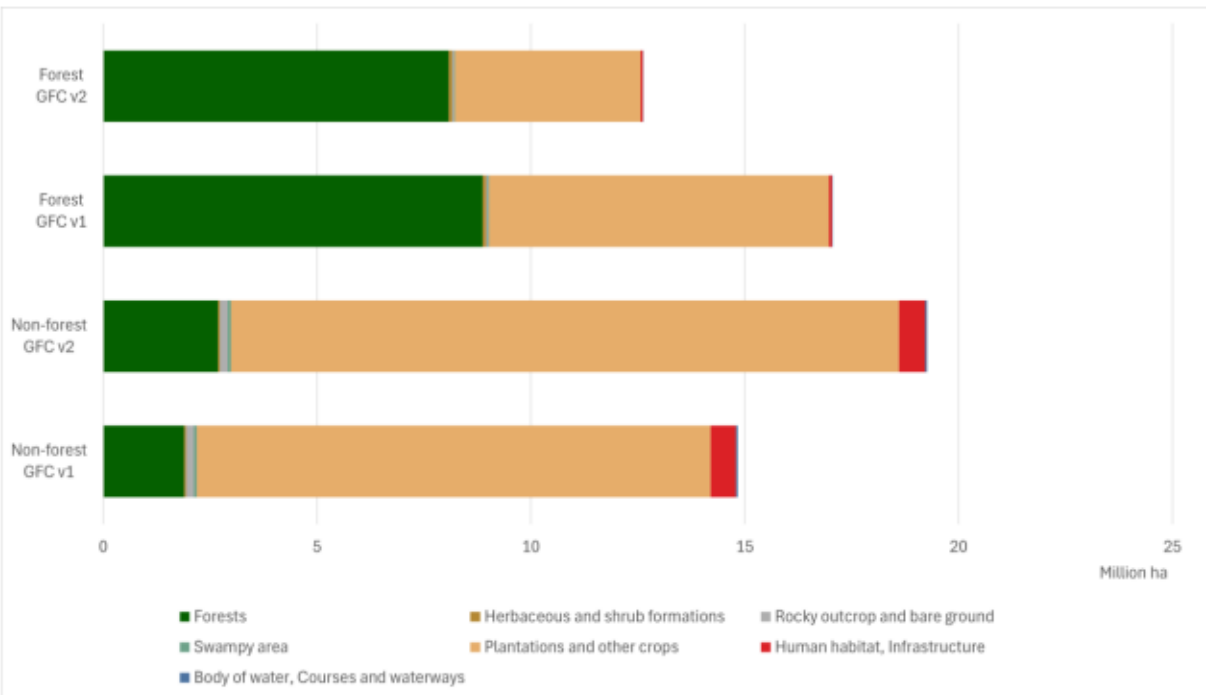


Possible use of maps for EUDR risk assessment



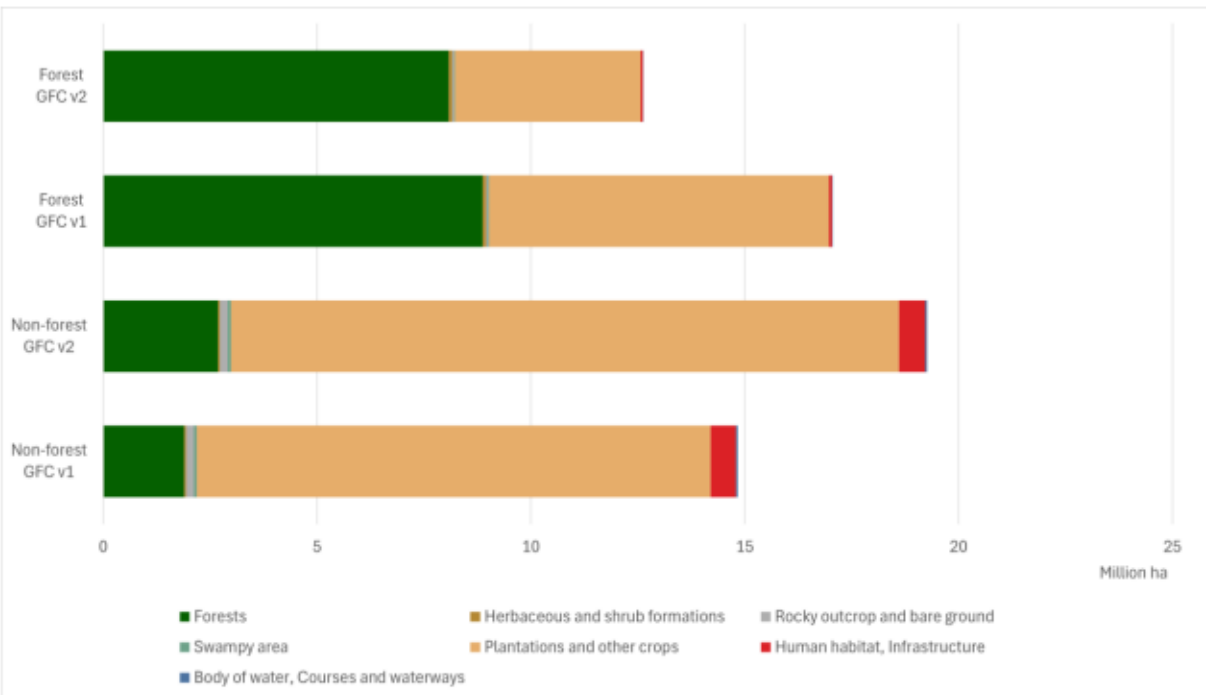
Spatial comparison with national/regional maps

Cote d'Ivoire

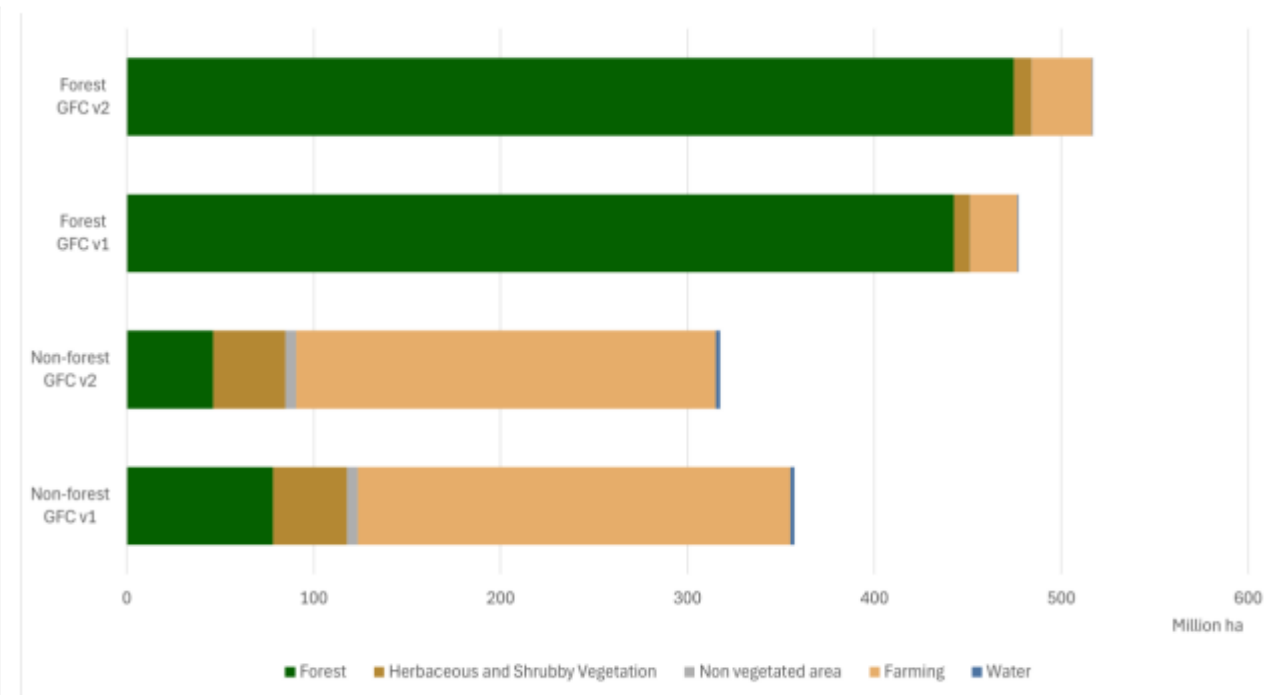


Spatial comparison with national/regional maps

Cote d'Ivoire



Mapbiomas - Brazil

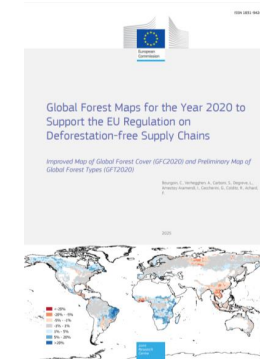
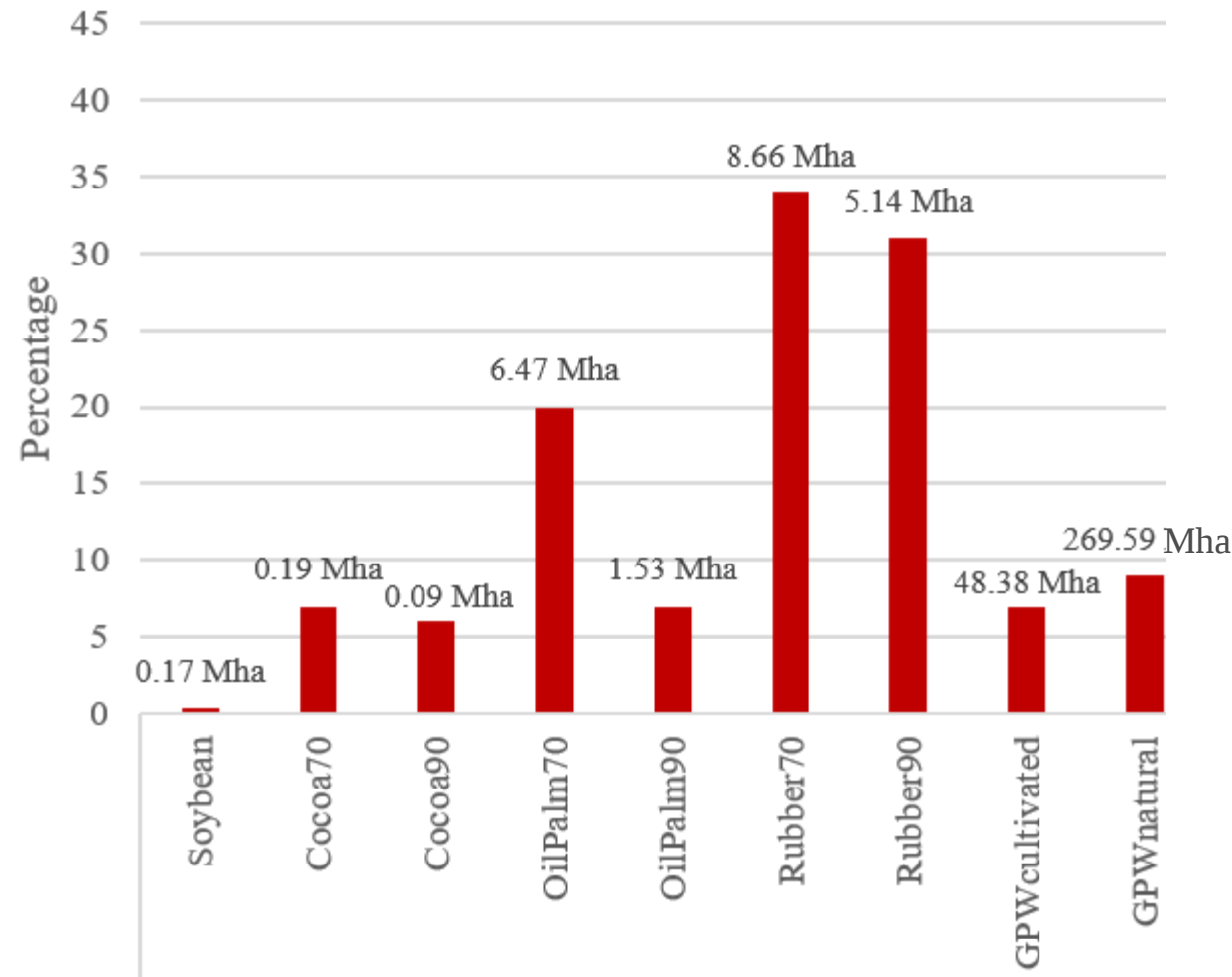


Other Comparisons:

- Europe: CORINE
- North America: NALCMS

Spatial comparison to «commodity layers»

Overlap forest (GFC2020) with other land uses



More comparisons
in forthcoming
paper in ESSD

Data sources of the regional/global datasets:

- Soybean extent in South America for year 2020 (Song et al. 2021)
- Probability estimates (≥ 70 and $\geq 90\%$ threshold) of cocoa (Côte d'Ivoire, Ghana), oil palm (global) and rubber (Thailand, Indonesia, Vietnam, Malaysia, Philippines, Hainan Island, Côte d'Ivoire, Ghana) extents for year 2020 (Clinton et al. 2024).
- Dominant class maps of grasslands (cultivated and natural/semi-natural) of year 2020 (Parente et al. 2024).

Comparing geolocations to maps

Guide for JRC IMPACT toolbox,
QGIS and GEE

Intersect vector data with GFC 2020 map

Inputs

AOI:

Forest Map:

☐ Download from JRC - GFC 2020

Parameters

Forest class values:

Mode: ☐ Intersect Vertices ☒ Intersect geometry

Type: ☐ Count ☒ Percentage

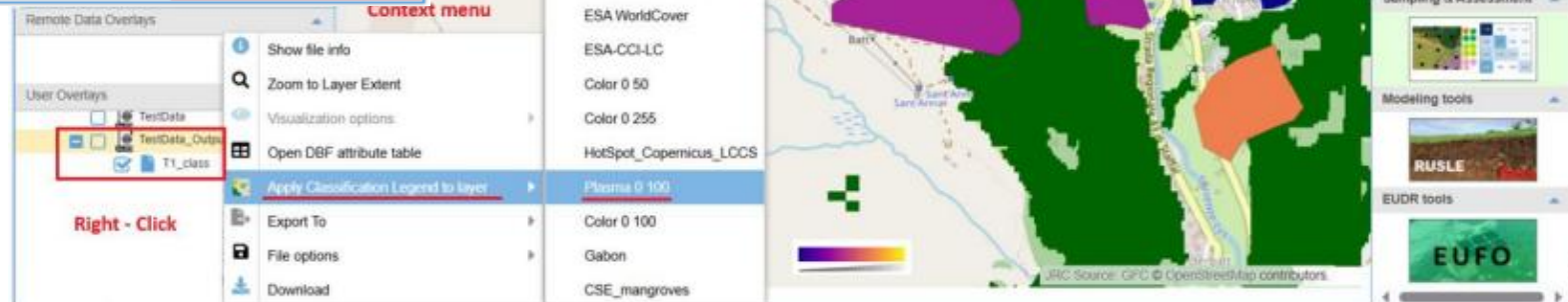
NOTES:

- Beta Version: under consolidation
- Output directory is same as the input AOI
- Processing by Vertices returns a new vector file with "Point" geometries
- Documentation and data access see "Info and Manuals" under "EUFO Tools"

Output suffix:

Save JRC map: ☐ Yes ☒ No

Overwrite: ☐ Yes ☒ No



Thank you

<https://forest-observatory.ec.europa.eu>

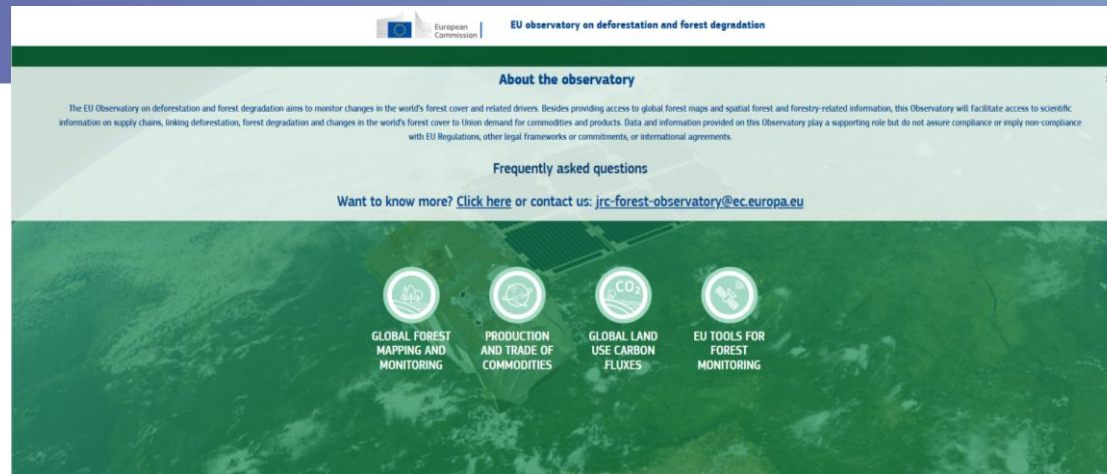
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