SAMPLE REPORT · PUBLIC DATA

EUDR ESTATE TEST · KARNATAKA COFFEE BELT

Most Indian coffee estates show up as forest on the EU's own map.

We overlaid **305 named coffee estates** in Chikmagalur, Kodagu and Sakleshpur on the European Commission's **JRC Global Forest Cover 2020** map, the reference map EU buyers and their software use for EUDR checks.

79%

of estates have more than 10% of their area mapped as forest, so they **will be flagged** for review

63%

are **mostly "forest"** (more than half their area) on the EU map

81%

forest cover on the map for the **median estate**

Why it matters: under EUDR, shade-grown coffee is an *agricultural plantation*, which the Regulation excludes from "forest" (Art. 2(6)). But a flag still has to be resolved with evidence before the coffee can ship. This report shows what that looks like.

Prepared by The Green Concept (Green Concept Ecoscapes Pvt Ltd), Pune, India · **Date** 12 October 2026 · **Status** sample report built only from public data, with no client data

1. What we tested and what we found

Estates

- **305 coffee estates** named "... Coffee Estate" in the GeoNames gazetteer (Chikmagalur, Kodagu, Sakleshpur).
- One point per estate, so we tested a **100 m radius (~3.1 ha)** around each, a typical small plot.

Results

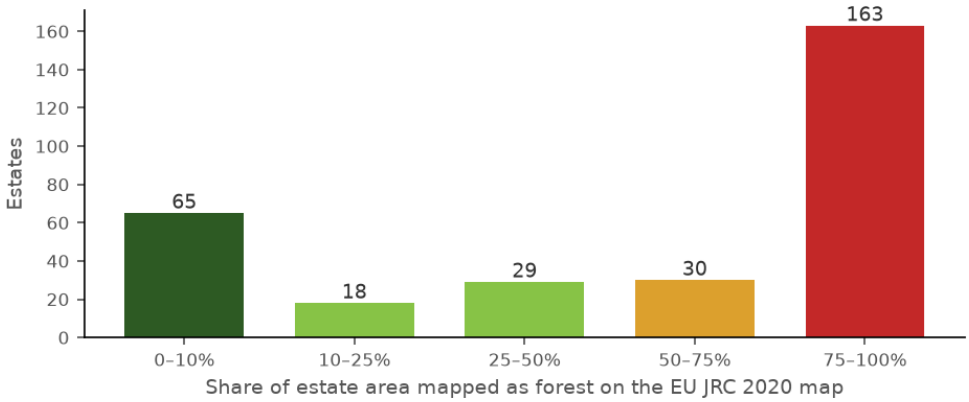


Figure 1. Share of each estate's test area mapped as forest on the EU JRC GFC2020 map (v4). Only the 65 estates in the first bar would pass without review.

District	Estates	Flagged (>10% forest)
Chikmagalur	201	79%
Kodagu (Coorg)	85	75%
Hassan (Sakleshpur)	19	89%
All	**305**	**79% (240)**

Robustness. GeoNames points are approximate, so we repeated the test with a 50 m and a 250 m radius. The flagged share stays between **73% and 84%**, and between 63% and 66% of estates are mostly "forest". The finding does not depend on the exact estate location.

Method check. We read the EU map pixel by pixel at its native 10 m grid. In 5 test windows, the values matched the official JRC download tile **100%**.

Tree loss after the cut-off

20 of 305 estates (7%) also show some tree-cover loss between 2021 and 2024 on the Hansen/UMD Global Forest Change map, mostly under 0.5 ha. In shade coffee this is often lopping or replacing shade trees, not deforestation, but **each one must be checked and explained**. An EU buyer cannot ignore it.

2. What a flagged estate looks like

Two coffee plots with mapped boundaries (OpenStreetMap, Kodagu). On the left is satellite imagery from **2016, four years before the EUDR cut-off**. On the right is the EU forest map.

Case A: 758 ha, mapped as coffee with pepper

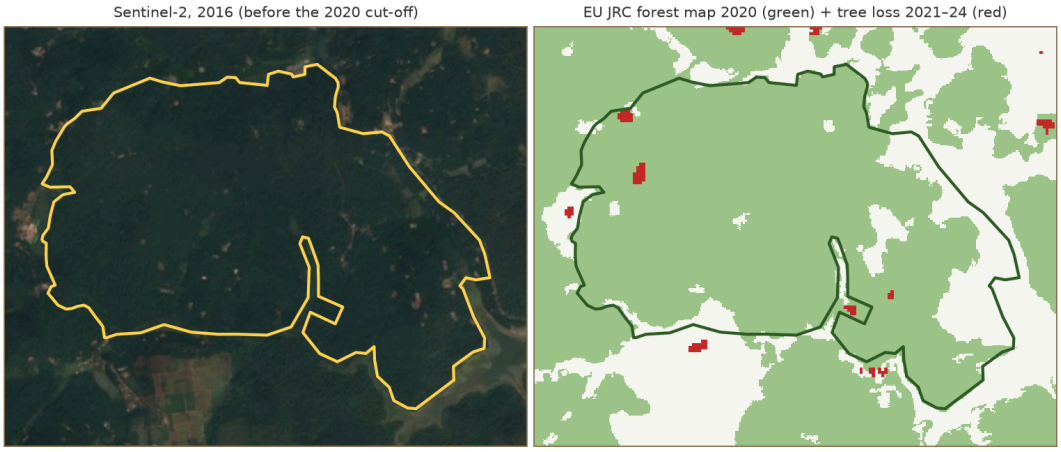


Figure 2. Left: Sentinel-2 cloudless 2016 (EOX). Right: JRC GFC2020 forest (green), Hansen tree loss 2021–24 (red). Already a closed canopy in 2016, typical of shade coffee, and **impossible to tell apart from forest from space**.

Forest on EU 2020 map	86% of the plot → **flagged**
Tree loss 2021–24	3.4 ha in several small patches → **needs explanation**

Case B: 110 ha

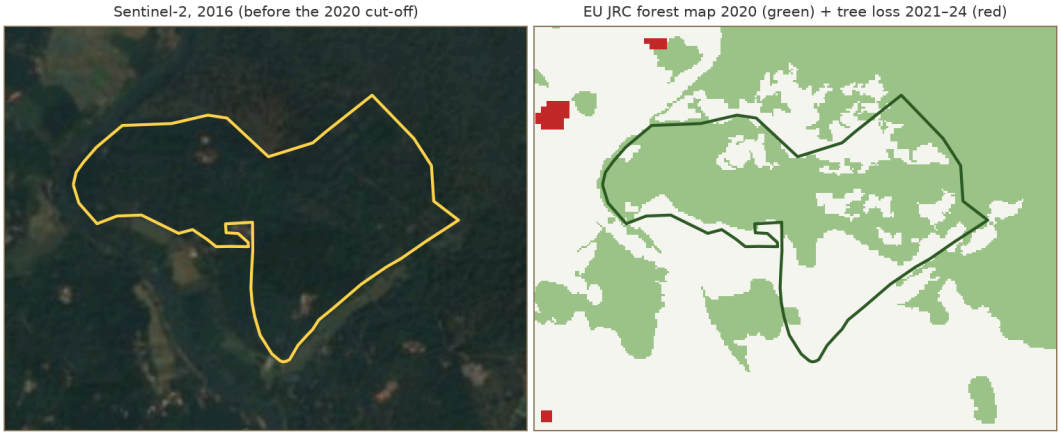


Figure 3. As Figure 2. 61% of the plot is mapped as forest; no tree loss after 2020.

> **The point:** satellite data alone can't clear these estates. The canopy that makes them good coffee also makes them "forest" on the map. Resolving the flag needs **ground and land-use evidence**: shade-tree species, coffee bush density, planting history and land records. That is ecology work, not software.

3. What the Regulation says

Regulation (EU) 2023/1115, Article 2:

> *(4) 'forest' means land spanning more than 0,5 hectares with trees higher than 5 metres and a canopy cover of more than 10 %, or trees able to reach those thresholds in situ, excluding land that is predominantly under agricultural or urban land use;*

> *(6) 'agricultural plantation' means land with tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems where crops are grown under tree cover; ... agricultural plantations are excluded from the definition of 'forest';*

So shade coffee that was already coffee before 31 December 2020 is not forest under EUDR, whatever a tree-cover map shows. The JRC describes its map as **non-mandatory, non-exclusive and not legally binding**. Its own accuracy assessment reports an **18% commission error for forest**: nearly one in five "forest" pixels is not forest on the ground (JRC141231). The burden is on the supply chain to show the land use with evidence.

Two cautions an honest report must state:

- **Real forest inside estates.** Many estates contain genuine forest: stream-side strips, sacred groves (*devarakadu*), steep slopes. These patches *are* forest. They should be **mapped out of the plot**, not argued away.
- **Conversion after 2020 is deforestation.** If forest was under-planted or cleared for coffee after 31 Dec 2020, Art. 2(6) does not help. Evidence must show the coffee came **first**.

What we do for a flagged plot (Flagged-Plot Defence)

Step	Evidence produced
Imagery timeline	Landsat 2015–2020, Sentinel-2 2016 to now, high-resolution history: **coffee existed before 2021**
Canopy analysis	Planted shade (spacing, species, estate roads, drying yards) vs natural forest structure
Loss check	Every post-2020 loss patch explained: lopping, replanting, or flagged honestly
Field visit (optional)	Geotagged photos, boundary walk, shade-tree species list, coffee density in a 10×10 m sample
Boundary correction	Real forest patches mapped **out** of the production plot
Ecologist's statement	One page, signed by a PhD ecologist: land use before and after 31 Dec 2020

4. Data, limitations and sign-off

Data sources

Layer	Version / date	Licence
EC JRC Global Forest Cover 2020	v4, 10 m, accessed 12 Oct 2026	Free use, attribution requested
Hansen/UMD Global Forest Change	2024 v1.12, loss year	CC BY 4.0
Sentinel-2 cloudless 2016 (EOX IT Services)	2016 mosaic	CC BY 4.0; contains modified Copernicus Sentinel data 2016
GeoNames gazetteer (estate points)	India dump, Oct 2026	CC BY 4.0
OpenStreetMap (plot boundaries)	Overpass extract, Oct 2026	ODbL, © OpenStreetMap contributors

Limitations

- **Estate locations are approximate.** GeoNames points mark a named estate, not its boundary, and may sit on the bungalow, a village or a nearby slope. The result describes the area around the point, not an exact estate. A client report uses the client's own plot boundaries.
- **Coffee status is from public tags.** We did not visit any of these estates. OSM boundaries are volunteer-mapped.
- **"Flagged" does not mean "deforested".** It means an EU system will ask questions. Some flagged area will be genuine forest that should be excluded from the plot (page 4).
- **The 10% threshold** is our review trigger, not a legal threshold. Buyers and platforms set their own; many flag any overlap.
- **Legality is out of scope.** EUDR also requires products to be produced legally (land rights, forest law, labour, tax). This report covers deforestation only.

> **What this report is not.** It is not a due diligence statement and not a determination that any plot is or isn't EUDR compliant. Only the EU operator files the statement and decides compliance. We provide data and evidence.

Analysis: Dr. Girish Kulkarni
Head of Data Science, The Green Concept

Ecological review: Dr. Aboli Kulkarni
Head of Ecological Sciences, The Green Concept

Do this for your own plots, free.

Send us 25 plots (Excel, KML, or a Coffee Board app export) under NDA. Within 48 hours you get this check on *your* estates: data errors, forest-map flags and post-2020 loss.
info@thegreenconcept.co.in · +91 9970438127 · thegreenconcept.co.in