

Terra Lens — Land History Report

Stable rural parcel — negative report (example) · report date 2026-08-25 · generated deterministically from the frozen pipeline (zero LLM)

	1 · Parcel identifier and geometry source
Parcel identifier	parcel-b-stable-rural
Public label	Stable rural parcel — negative report (example)
Geometry source	drawn study box over a stable coconut/scrub rural area (Dauin, Negros Oriental)
Geometry confidence	coordinates-only
Window bbox (lon/lat)	123.27200, 9.26050 – 123.27950, 9.26450
	The window is a drawn study box, not a title boundary. The operator-requested period is 2017-2026; on this tile no cloud-valid (<20%) scene exists for 2017 under the spike-frozen cap, so the verified span starts at the first cloud-valid observation and every gap > 90 days is reported UNOBSERVED.

	2 · Period and observation coverage
Requested period	2017-01-01 → 2026-08-20
Window selection disclosure	This example parcel was selected as a sub-window after the fact: a first 2 km study window over the same area was screened with the frozen detector, real 2018-2020 change events were found in its north and centre, and the example box is the clean south-east sub-window of that screening. The selection is disclosed here so the report cannot be read as a randomly chosen parcel.
Verified span (honest)	2018-02-09 → 2026-06-17
Span note	no cloud-valid (<20%) scene exists on this tile for 2017 under the spike-frozen cap; the verified span starts at the first cloud-valid observation and every gap > 90 days is rendered UNOBSERVED
Cloud-valid scenes used	65
First / last valid scene	2018-02-09 / 2026-06-17
Scenes (dates)	2018-02-09, 2018-05-10, 2018-10-07, 2018-11-16, 2019-03-16, 2019-03-21, 2019-03-26, 2019-03-26, 2019-04-20, 2019-04-20, 2019-04-25, 2019-04-25, 2019-05-10, 2019-09-17, 2019-09-17, 2019-09-22, 2019-09-22, 2019-11-21, 2020-01-30, 2020-02-04, 2020-02-04, 2020-02-09, 2020-03-10, 2020-03-10, 2020-03-20, 2020-03-20, 2020-03-30, 2020-03-30, 2020-04-14, 2020-04-14, 2020-06-03, 2020-11-20, 2020-12-05, 2020-12-05, 2021-02-28, 2021-02-28, 2021-04-04, 2021-04-04, 2021-04-04, 2021-08-07, 2022-01-04, 2022-04-19, 2023-03-10, 2023-04-14, 2023-06-13, 2023-08-02, 2023-10-06, 2023-12-15, 2024-01-04, 2024-03-04, 2024-03-14, 2024-03-19, 2024-04-03, 2024-04-13, 2024-05-23, 2025-06-02, 2025-08-01, 2026-03-16, 2026-03-19, 2026-03-29, 2026-04-03, 2026-04-18, 2026-04-25, 2026-05-28, 2026-06-17

Cloud-blind intervals > 90 days	10 (UNOBSERVED, listed below)
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Unobserved interval (cloud-blind)	Days
2018-05-10 → 2018-10-07	150
2018-11-16 → 2019-03-16	120
2019-05-10 → 2019-09-17	130
2020-06-03 → 2020-11-20	170
2021-04-04 → 2021-08-07	125
2021-08-07 → 2022-01-04	150
2022-01-04 → 2022-04-19	105
2022-04-19 → 2023-03-10	325
2024-05-23 → 2025-06-02	375
2025-08-01 → 2026-03-16	227

3 · Event chronology — STABLE LAND USE

No change event at or above the detection floor was found in any detection-capable observation pair over the verified span. Rule: STABLE iff every detection-capable pair (same-sensor, both scenes <20.0% cloud, pair SCL-valid $\geq$ 0.80, gap $\leq$ 90 d) yields event_area_ha == 0 (MMU 0.5 ha); parcel-mean NDVI is reported for transparency, not as a gate (seasonal dip and sub-MMU regrowth are not land-use change)

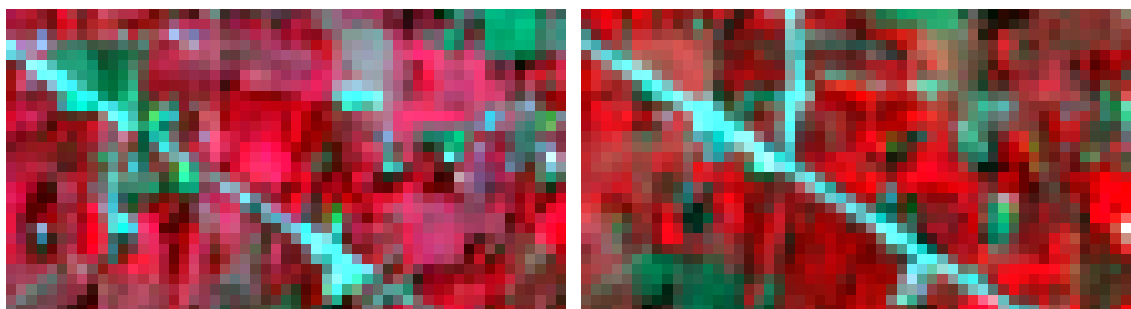
Detection pairs rerun offline over the verified span (27 detection-capable of 43 same-sensor pairs)

Pre	Post	Gap (d)	Pair SCL-valid	Detection-capable	Event area (ha)
0190321_	0190420_	30	0.993	yes	0.00
0190420_	0190420_	0	0.999	yes	0.00
0190420_	0190510_	20	0.996	yes	0.00
0190917_	0190917_	0	0.916	yes	0.00
0200204_	0200204_	0	0.999	yes	0.00
0200204_	0200414_	70	0.999	yes	0.00
0200414_	0200414_	0	0.999	yes	0.00
0200414_	0200603_	50	0.982	yes	0.00
0210228_	0210228_	0	0.000	no (gate failed)	0.00
0231006_	0231215_	70	0.360	no (gate failed)	0.00
0231215_	0240104_	20	0.352	no (gate failed)	0.00
0240104_	0240304_	60	0.046	no (gate failed)	0.00
0240304_	0240314_	10	0.056	no (gate failed)	0.00
0240314_	0240403_	20	1.000	yes	0.00
0240403_	0240413_	10	1.000	yes	0.00
0240413_	0240523_	40	0.893	yes	0.00
0260316_	0260425_	40	0.976	yes	0.00
0180209_	0180510_	90	1.000	yes	0.00
0181007_	0181116_	40	0.433	no (gate failed)	0.00
0190316_	0190326_	10	0.642	no (gate failed)	0.00

Pre	Post	Gap (d)	Pair SCL-valid	Detection-capable	Event area (ha)
0190326_	0190326_	0	0.997	yes	0.00
0190326_	0190425_	30	0.993	yes	0.00
0190425_	0190425_	0	0.994	yes	0.00
0190922_	0190922_	0	0.999	yes	0.00
0190922_	0191121_	60	0.000	no (gate failed)	0.00
0191121_	0200130_	70	0.000	no (gate failed)	0.00
0200130_	0200209_	10	0.774	no (gate failed)	0.00
0200209_	0200310_	30	0.744	no (gate failed)	0.00
0200310_	0200310_	0	0.957	yes	0.00
0200310_	0200320_	10	0.999	yes	0.00
0200320_	0200320_	0	0.999	yes	0.00
0200320_	0200330_	10	0.998	yes	0.00
0200330_	0200330_	0	0.998	yes	0.00
0201205_	0201205_	0	0.504	no (gate failed)	0.00
0210404_	0210404_	0	0.572	no (gate failed)	0.00
0210404_	0210404_	0	0.547	no (gate failed)	0.00
0230414_	0230613_	60	1.000	yes	0.00
0230613_	0230802_	50	1.000	yes	0.00
0250602_	0250801_	60	1.000	yes	0.00
0260319_	0260329_	10	0.849	yes	0.00
0260329_	0260418_	20	1.000	yes	0.00
0260418_	0260528_	40	0.000	no (gate failed)	0.00
0260528_	0260617_	20	0.000	no (gate failed)	0.00

Parcel-mean NDVI across 62 valid observations: min 0.402, median 0.610, max 0.741 (transparency series — the recurring dry-season dip and sub-floor regrowth are phenology, not land-use change; the frozen detector is the change instrument)

First / last valid observation — false colour (near-infrared/red/green), parcel window; vegetation appears red



4 • Methodology	
Satellite	Copernicus Sentinel-2 L2A (10 m native; 15 m analysis grid), anonymous Tier-1 archive (Earth Search STAC)
Bands	B03 green, B04 red, B08 NIR, B11 SWIR16, B12 SWIR22, SCL
Indices	NDVI, NBR, NBR2, NDWI; pair deltas dNBR, dNDVI, dNBR2, dNDWI

Thresholds (frozen)	core dNBR $\leq$ -0.15, severe dNBR $\leq$ -0.27, dNDVI $\leq$ 0.02, brightening ratio $\leq$ 1.3, SWIR rise ratio $\leq$ 1.05, vegetation baseline NDVI $\geq$ 0.2; no tuning, provenance in DETECTOR_CARD.md
Minimum mapping unit	0.5 ha (detection floor; sub-MMU changes are not reported)
Pairing	same-sensor detection pairs only (cross-sensor = trajectory only); pair scenes < 20% scene cloud; pair SCL-valid fraction $\geq$ 0.80
BOA harmonization	per-scene T03 rule: PB $\geq$ 04.00 with boa_offset_applied != True -> -1000 DN at ingest; pre-04.00 scenes (PB 02.x/03.x, flag absent) carry no offset and are used as-is; every scene's baseline, flag and subtracted DN are listed in the series
SCL masking	scene-classification invalid classes {0,1,3,8,9,10,11} masked; SCL resampled nearest-neighbour only
Persistence	same-sensor follow-ups < 40% cloud; persistent when NBR stays $\geq$ 0.1 below the pre-event NBR over the event pixels

	5 • Limits
Detection floor	changes below the 0.5 ha minimum mapping unit (~1 ha practical detection floor at 15 m grid) are not detected and not reported
No ground survey	no ground survey and no field verification were performed; spectral families are candidates
Cloud-blind intervals	every interval > 90 days without a cloud-valid scene is listed UNOBSERVED in section 2 — absence of a detected event there is absence of observation, not of change
Geometry	the window is a study box (geometry confidence: see section 1), not a titled boundary

6 • Disclaimers

Decision-support document only. This report is not a survey, is not field-verified, and makes no legal claim. Detections are candidates pending human confirmation.

Data attribution: Free and open use of Copernicus Sentinel data (ESA). Attribution: "Contains modified Copernicus Sentinel data [2024-2026]".