



Thematic Fact Sheet

RESOURCE CONSERVATION INITIATIVE

LAND USE LAND COVER CHANGE

The Forest That Became Farmland

A thirty-year satellite-derived land cover change analysis of Asutifi North and Atwima Mponua Districts — Ahafo and Ashanti Regions, Ghana

RESCONI . AUGUST 2026.

ABOUT THIS FACT SHEET

Every figure in this fact sheet is drawn from the RESCONI Final Study Report, *Support to Promote Community Resilience and Rights in Competing Land Use for Mining, Agriculture and Forest Utilization in Ghana* (November 2023), and is referenced to the section, table or figure it came from. Land cover for 1990 and 2021 was classified into six classes across both districts from satellite imagery and compared to produce a thirty-year trend analysis, prepared for RESCONI by Statera Company Limited using data from RMSC, KNUST and Ecometrica's Forest 2020 project. Community findings come from 528 respondents surveyed across 20 communities. Charts have been redrawn from the report's own land use trend tables.

HEAD OFFICE

No. 12 - 13 PAMA House
105 Westland Boulevard West Legon
Accra - Ghana
GE-314-0597

REGISTERED ADDRESS

RESOURCE CONSERVATION INITIATIVE
P. O. Box 12811
Kumasi

PHONE

+233 (0) 24 460 3904
+233-(0) 24 218 4162
+233-(0) 24 608 5656
EMAIL: info@resconi.org



1. Two districts, six land classes, thirty years

The same landscape, photographed twice — once in 1990, once in 2021. What changed in between is the story of how land in Ghana's cocoa-forest belt is now being used.

KEY FACTS

- The study covers two districts — **Asutifi North** (Ahafo Region) and **Atwima Mponua** (Ashanti Region).
- Together they span **281,700 hectares** of Ghana's high forest zone.
- Land cover was classified into **six classes** from satellite imagery and compared across **1990 to 2021**.
- Community data came from **528 respondents** across 20 communities, at 95% confidence with a 5% margin of error.
- Agriculture, forestry and minerals together contribute more than **20%** of Ghana's GDP.
- Farming is the dominant land use: over **90%** of respondents said cocoa and farming are the main use of their land.
- Cropland expanded **more than thirty fold** in both districts over the period.

How the change was measured

The analysis is **satellite-derived**. A land use trend analysis compared the classified extent of each category in 1990 against 2021 for both districts.

The **total district area is constant across both time points**. Every hectare gained by one class is therefore a hectare lost by another — these figures represent **reclassification of existing land, not district expansion**. That is what allows the direction of conversion to be read straight off the table.

Source: RESCONI Final Study Report (2023), Section 2.6.1, p. 42; Tables 2.1 and 2.2, p. 43.

District profile

District	Area (ha)	Region
Atwima Mponua	188,206.40	Ashanti
Asutifi North	93,493.60	Ahafo
Combined	281,700.00	—

Table 1. Total classified area per district — constant across both time points.

Source: RESCONI Final Study Report (2023), Tables 2.1 and 2.2, p. 43.

Why these two districts

Both districts sit in Ghana's high forest zone, both are major cocoa-producing areas, and both carry active mining alongside farming and forest reserves. That combination — agriculture, mining and forestry competing for the same ground — is precisely the tension the RESCONI study set out to measure.

The six land classes

Type	Characteristics
Close Forest	Dense, largely intact canopy
Open Forest	Degraded or thinned canopy
Cropland	Land under cultivation
Grassland	Cleared, uncultivated ground
Settlement / Bare	Built-up or bare surface
Waterbody	Rivers, streams, mining pits

Table 2. Classification scheme. *Source: RESCONI Final Study Report (2023), Section 2.6.1.p.2.*

The distinction between the two forest classes matters. Land rarely moves from forest to farm in one step — it usually passes through open forest first, which makes **open forest an early-warning signal rather than a stable category**.

What the 1990 baseline looked like

In 1990 both districts were overwhelmingly forested. Close and open forest together accounted for roughly **94%** of Atwima Mponua and **86%** of Asutifi North. Cropland was marginal — 1,379.5 hectares in Atwima Mponua and 743.2 hectares in Asutifi North, well under 1% of either district. Settlement was smaller still.

A landscape under competing claims

The spatial picture is only half the evidence. Alongside it, surveyed 528 respondents across 20 communities — 294 in Asutifi North and 234 in Atwima Mponua — on how they acquire land, what they use it for, who else they pass it to, and what conflicts arise. Read together, the maps show what changed and the survey shows why.

Source for this section: RESCONI Final Study Report (2023), Section 2.6.1, p. 42; Tables 2.1 and 2.2, p. 43; Executive Summary, p. ix.

The same Landscape, Thirty-one years apart

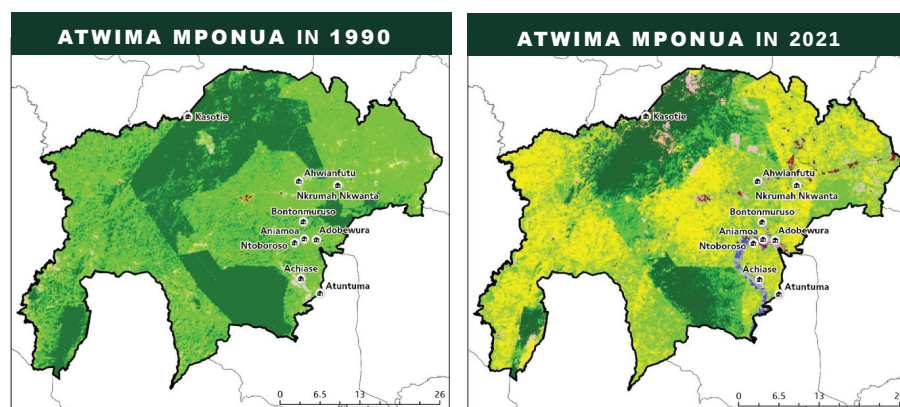


Figure 1. Atwima Mponua District in 1990 and 2021. Dark green closed forest and bright green open forest give way to yellow cropland across most of the district.

Source: RESCONI Final Study Report (2023), Figures 2.26 (p.45) and 2.27 (p. 46), produced by Statera Company Limited with data from RMSC, KNUST and Ecometrica.

2. What the analysis found

Forest fell. Cropland rose by almost exactly as much. In Atwima Mponua, the 79,800 hectares of forest lost between 1990 and 2021 were very nearly matched by 72,300 hectares of new cropland.

Where the hectares went

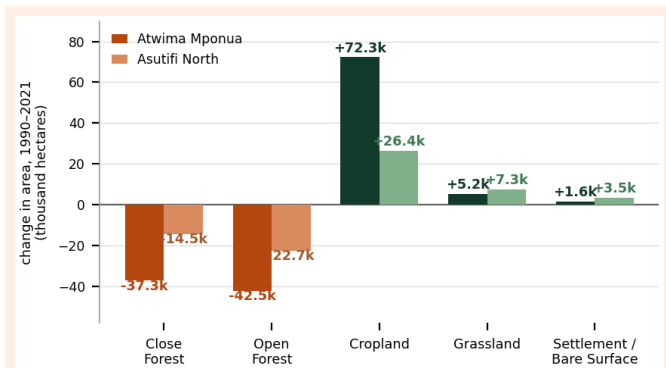


Figure 2. Absolute change in area by land class, 1990–2021. Losses in red, gains in green. Source: RESCONI Final Study Report (2023), Tables 2.1 and 2.2, p. 43.

The Composition Shift

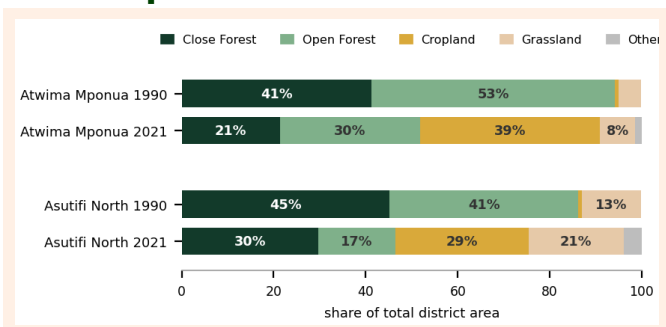


Figure 3. Share of total district area by land class, 1990 versus 2021. Source: RESCONI Final Study Report (2023), Tables 2.1 and 2.2, p. 43.

Cropland, on a log scale

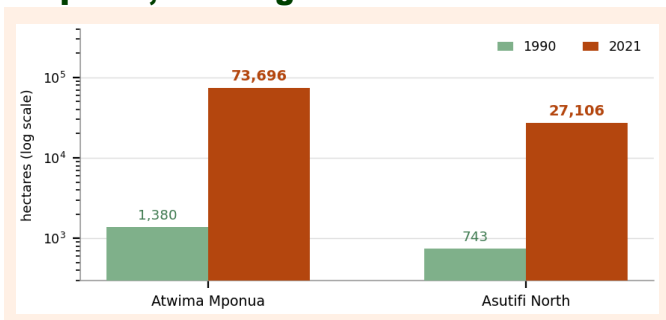


Figure 4. Cropland area, 1990 versus 2021 — a 53-fold increase in Atwima Mponua and 36-fold in Asutifi North. Source: RESCONI Final Study Report (2023), Tables 2.1 and 2.2, p. 43.

Read grassland as degradation, not recovery

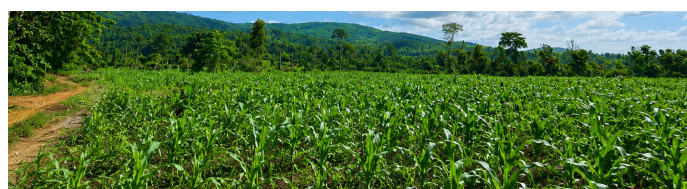
Grassland expanded in both districts — +56.6% in Atwima Mponua and +61.2% in Asutifi North. That is cleared, uncultivated ground: degraded forest transitioning to open cover, **not ecological recovery**. Settlement growth (+492% and +3,097%) reflects rising population pressure and built-up expansion.

Source: Report Tables 2.1 and 2.2, p. 43.

Full land use trend

Land class	1990 (ha)	2021 (ha)	Change
Atwima Mponua District			
Close Forest	77,561.80	40,222.64	-48.1%
Open Forest	99,709.50	57,247.96	-42.6%
Cropland	1,379.50	73,696.35	+5,242%
Grassland	9,181.90	14,377.10	+56.6%
Settlement / Bare	332.00	1,965.04	+492%
Waterbody	4.90	697.31	+14,131%
Other land	36.80	0.00	-100%
Total	188,206.40	188,206.40	—
Asutifi North District			
Close Forest	42,262.70	27,800.10	-34.2%
Open Forest	38,276.70	15,556.70	-59.4%
Cropland	743.20	27,105.70	+3,547%
Grassland	12,005.80	19,348.40	+61.2%
Settlement / Bare	113.10	3,615.40	+3,097%
Waterbody	No data	67.29	—
Other land	92.10	0.00	-100%
Total	93,493.60	93,493.60	—

Table 3. Land use trend analysis, 1990–2021. Percentage change calculated from the reported hectare figures. Totals are identical at both time points. Source: RESCONI Final Study Report (2023), Table 2.1 (Atwima Mponua) and Table 2.2 (Asutifi North), p. 43.



Agriculture is where the forest went

Cropland is by a wide margin the principal beneficiary of converted land. In Atwima Mponua alone it absorbed 72,300 of the 79,800 hectares of forest lost. **Agricultural expansion — predominantly cocoa and food crops — is the main destination of converted forest land**, not settlement or mining, which are smaller in area even where their local impact is severe.

Source: Report Tables 2.1 and 2.2, p. 43.

Then and now in Asutifi-North District

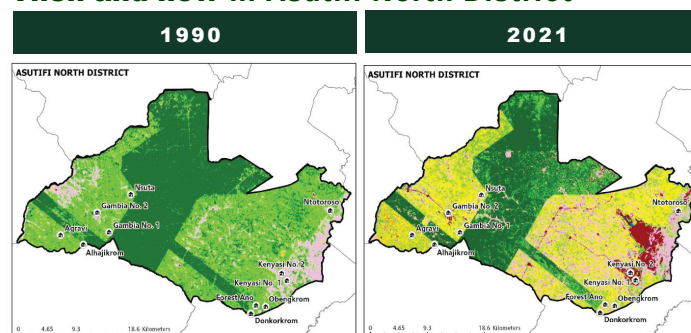


Figure 5. Asutifi North District in 1990 and 2021. Dark green closed forest gives way to yellow cropland, and settlement in dark red expands sharply around Kenyasi No. 2. Source: RESCONI Final Study Report (2023), Figures 2.26 (p. 45) and 2.27 (p. 46).

3. Why it matters, and what must change

Land does not convert itself. Behind every hectare on the previous page is a decision about who holds land, who it is passed to, and what they are permitted to do with it.

What is driving the change

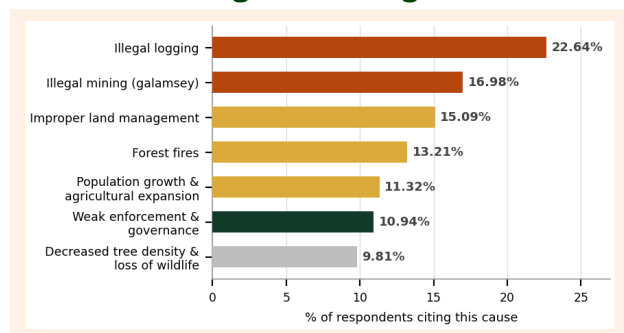


Figure 6. Causes of forest cover decline cited by respondents. **Source:** RESCONI Final Study Report (2023), Figure 2.16, p. 35.

Illegal logging was named most often, followed by illegal mining — together close to 40% of all causes cited, both operating outside the regulatory system. Communities confirm the loss: **94.55% from Asutifi North District** and **98.65% from Atwima Mponua District** said forest cover and its benefits have declined over thirty years.

Who holds the land — and who it passes

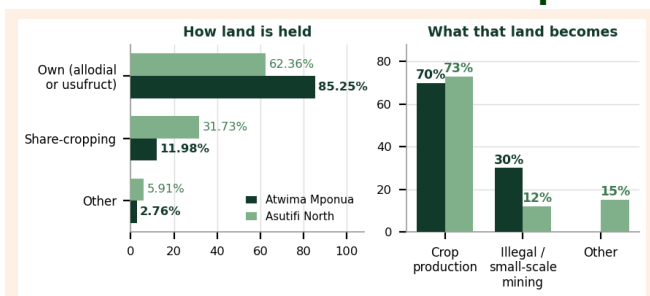


Figure 7. Land tenure and the end use of assigned land. **Source:** RESCONI Final Study Report (2023), Figures 2.28 and 2.30, pp. 47–49.

Most land is held under allodial or usufruct title. But holding land and keeping it are different things: about **90% from Asutifi North District** and **95% from Atwima Mponua District** of respondents have assigned interest in part of their land to a third party.

What RESCONI recommends

The policy measures set the framework; the land-administration measures address how conversion actually happens, parcel by parcel.

Policy and planning (Sections 5.1 & 5.2)

- Address competing land use within a **national land use plan** binding assemblies, regulators, traditional authorities and the private sector.
- Adopt **IFAMMA** — the Integrated Forestry and Mining Management Approach — to restore degraded forestland and mined-out areas.
- Redefine **artisanal mining permits** to require Traditional Authority consent.
- Promote **sustainable farming practices** that raise yields without

How the transactions actually work

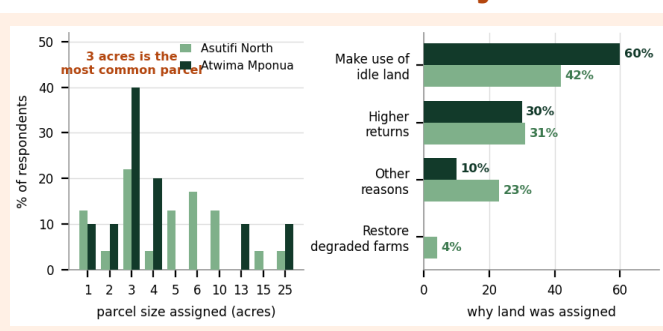


Figure 8. Size of land parcels assigned to third parties, and the reasons given. **Source:** RESCONI Final Study Report (2023), Section 2.6.2; Figures 2.29 and 2.30, pp. 48–49.

Parcels range from **1 to 25 acres**, with **3 acres by far the most common** — 22% of transactions in Asutifi North and 40% in Atwima Mponua. The dominant motive is putting idle land to use (42% and 60%), then higher returns (31% and 30%). Conversion happens in small, individually reasonable steps.

30%

of land assigned to third parties in Atwima Mponua is used for illegal or small-scale mining — nearly one plot in three, against 12% in Asutifi North. **Four communities were identified:** **Kenyasi No. 1 in Asutifi North, and Achiase, Adobewura and Ahwianfutu in Atwima Mponua.**

Competing claims, unresolved

Overlapping claims produce conflict: **87% of respondents in Asutifi North** and **95% in Atwima Mponua** reported conflict over land used for farming, mining or logging. They attribute the difficulty of resolving it to unequal power and money, poor succession planning, chieftaincy disputes, and boundaries that are poorly demarcated or undocumented.

Land administration and restoration

- Strengthen **boundary demarcation and land documentation**, so parcels and claims are recorded and disputes have a factual basis.
- Regulate the conveyance of farmland** to third parties, to reduce conversion into illegal mining.
- Build **local capacity for land conflict mediation**, involving Traditional Authorities and CSOs.
- Prioritise reforestation and restoration in the most degraded zones** the areas showing the sharpest 1990–2021 declines, starting with open forest.

SOURCES

- Resource Conservation Initiative (RESCONI). *Support to Promote Community Resilience and Rights in Competing Land Use for Mining, Agriculture and Forest Utilization in Ghana* — Final Study Report. Kumasi: RESCONI, November 2023. Section 2.6 (Landuse Rift), pp. 42–50; Sections 4.1, 5.1 and 5.2; Tables 2.1 and 2.2 (p. 43); Figures 2.16 (p. 35), 2.26 (p. 45), 2.27 (p. 46), 2.28 (p. 47), 2.29 and 2.30 (pp. 48–49), 2.31 (p. 49), 2.32 and 2.33 (p. 50); Executive Summary, pp. ix–x.
- Satellite-derived land use maps and the 1990–2021 land cover change analysis produced for RESCONI by Statera Company Limited (July 2023) with data from RMSC, KNUST and Ecometrica (Forest 2020 Project), 2022, as credited on Figures 2.26 and 2.27 of the source report. Percentage changes calculated from the hectare figures reported in Tables 2.1 and 2.2.
- Community findings are based on 528 respondents across 20 communities (294 in Asutifi North, 234 in Atwima Mponua), sampled at 95% confidence with a 5% margin of error. Secondary figures quoted within the source report are cited there to their original authors.