

SENTINEL EARTH

CARBON INSIGHTS

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01

The CORSIA landscape is *taking shape.*

Rwanda expands its authorised supply pipeline

Rwanda has authorised the international transfer of up to 1.77 million tCO_2e from the Rwandan Improved Cookstove Project (VCS 2984), with the majority of the authorised volume falling within vintages eligible for CORSIA's first compliance phase (CP1). The Letter of Authorisation (LoA) was issued by the Rwanda Environment Management Authority (REMA) and covers emission reductions occurring between 1 September 2022 and 31 August 2027.

The authorisation moves the project further along the pathway towards potential CORSIA use, but does not make the full 1.77 million tCO_2e immediately available to airlines. The units must still satisfy the relevant programme tagging and corresponding adjustment requirements before they can be used for CORSIA compliance.

The development adds to Rwanda's existing pipeline of carbon credits authorised under Article 6, including several previously authorised clean-cooking projects. Three DelAgua projects alone cover approximately 5.69 million tCO_2e, alongside earlier authorisations for programmes involving BB Energy and BioLite.

PROJECTS WITH CORSIA FIRST PHASE ELIGIBLE-LABELLED ISSUANCES

This snapshot covers 19 grouped entries across 11 host countries and 3 crediting programmes. Every entry listed has had some of its issued units labelled CORSIA First Phase Eligible. The label attaches to specific issuances, not to a project as a whole, so it does not necessarily cover all units issued.

HOST COUNTRY	PROGRAMME	PROJECT ID	METHODOLOGY	TECHNOLOGY / ACTIVITY
Rwanda 4	Verra VCS	VCS3699	VM0050 / VMR0006	Clean cookstoves
	Verra VCS	VCS4150	VM0050 / VMR0006	Clean cookstoves
	Gold Standard	GS10959 PoA[1]	GS TPDDTEC v3.1	Safe water
	Gold Standard	GS11639	GS Methodology for emission reductions from safe drinking water supply	Water purification
Sierra Leone	Verra VCS	VCS3837	VMR0006	Clean cookstoves
Gambia	Verra VCS	VCS4000	VM0050 / VMR0006	Clean cookstoves
Tanzania 2	Verra VCS	VCS2676	VM0050 / VMR0006	Clean cookstoves
	Gold Standard	GS11732	GS TPDDTEC v3.1	Clean cookstoves
Nigeria 3	Verra VCS	VCS2673	VM0050 v1.0	Clean cookstoves
	Gold Standard	GS7312	GS TPDDTEC v3.1	Clean cookstoves
	Gold Standard	GS10789 PoA[2]	GS TPDDTEC	Clean cookstoves
Cambodia 2	Verra VCS	VCS2925	VMR0006 v1.1	Improved cookstoves
	Verra VCS	VCS3052	AMS-I.E. / AMS-III.AV.	Water purification
Laos 2	Verra VCS	VCS2924	VM0050	Improved cookstoves
	Verra VCS	VCS3204	AMS-III.AV.	Water purification
Madagascar	Verra VCS	21 KCM-Wood projects[3]	AMS-II.G.	Improved cookstoves
Uzbekistan	Verra VCS	VCS4531	AM0023	Fugitive emissions / gas-leak reduction
Malawi	Gold Standard	GS11677 PoA[4]	AMS-II.G.	Improved cookstoves
Guyana	ART TREES	ART102	TREES Standard	Jurisdictional REDD+

[1] GS10959 PoA groups 6 Rwanda VPAs: GS11098, GS11133, GS11134, GS11135, GS11136 and GS11137.

[2] GS10789 PoA groups the CORSIA Phase 1-labelled Nigeria VPAs GS12282 (RVPA-63) and GS12295 (RVPA-67).

[3] Madagascar grouped IDs: VCS2311–2315, VCS2685, VCS2687–2689, VCS2773–2780, VCS2794, VCS2825–2827.

[4] GS11677 groups the Malawi Biomass Energy Conservation Programme CPAs with CORSIA Phase 1-labelled issuances.

Sources: Verra Registry issuance export, Gold Standard Impact Registry issuance export, ART Registry and ICAO CORSIA Eligible Emissions Units tracker. Data reviewed through 31 August 2026.

Central African Republic completes its *carbon market framework*

The Central African Republic has completed its domestic carbon-market framework and issued a Letter of Authorisation (LoA) for a jurisdictional REDD+ programme currently under development, with the programme intended to target the CORSIA market. The framework covers participation across Article 6.2, Article 6.4, CORSIA, voluntary standards and non-market approaches, while establishing a domestic approval process for carbon projects.

Under the framework, transfers of ITMOs require host-country authorisation and a Corresponding Adjustment (CA), while credits will be recorded in a national registry. It also sets out eligibility and approval requirements for project developers, providing the regulatory infrastructure needed for projects to progress towards international transfers. The order also includes a dedicated chapter covering authorisations under CORSIA.

The REDD+ programme remains under development, so the LoA represents an authorisation step towards potential CORSIA supply. It adds to a small but growing pipeline of jurisdictional REDD+ programmes targeting the CORSIA market. Guyana has already issued ART TREES credits carrying a CORSIA First Phase eligible label, while Bhutan and Gabon received LoAs for their ART jurisdictional programmes in July. The completed regulatory framework provides a pathway for this programme, and potentially others, to progress through the country's authorisation process.

Climate Action Reserve adds a *risk-management pathway*

At the registry level, the Climate Action Reserve (CAR) has introduced criteria for an insurance mechanism designed to address risks associated with a Corresponding Adjustment (CA) not ultimately being applied, or CAR being unable to confirm that the required adjustment has been made. Developed with insurance intermediary Howden, the framework applies to Climate Reserve Tonnes (CRTs) from 2021 onwards.

Under the mechanism, insurance would support the compensation obligations associated with CRTs intended for CORSIA use where a host-country authorisation is subsequently withdrawn or changed, or where CAR cannot confirm that the required Corresponding Adjustment has been made. This could allow credits to progress towards CORSIA eligibility before the relevant accounting is confirmed through the host country's Biennial Transparency Report (BTR), while providing protection against the risk of double claiming.

The framework does not remove the underlying Article 6 requirements. Under CAR's updated labelling system, credits must first receive an Article 6 Authorised label following a host-country Letter of Authorisation (LoA). For credits using the insurance pathway to receive CAR's CORSIA Eligible-Authorised label, project developers must also submit an approved insurance mechanism and associated documentation. Insurance therefore acts as a risk-management mechanism around the accounting process rather than a substitute for host-country authorisation. At the time of CAR's announcement, Howden was still assessing potential insurance products against the criteria, while the associated Deed of Undertaking was still being finalised.

Korean CP1 costs estimated at *KRW335bn*

South Korean airlines are estimated to face combined CORSIA Phase 1 (CP1) compliance costs of approximately KRW335 billion ($236 million) across 2024–2026. However, reported procurement remains limited. According to government data cited in local reporting, South Korean carrier Eastar Jet was the only domestic airline reported to have secured CORSIA credits at the time, with 100,000 tCO_2e, equivalent to approximately 3.6% of the estimated 2.75 million tCO_2e requirement for 2024. The remaining 10 carriers, including Korean Air and Asiana Airlines, had not reported securing credits.

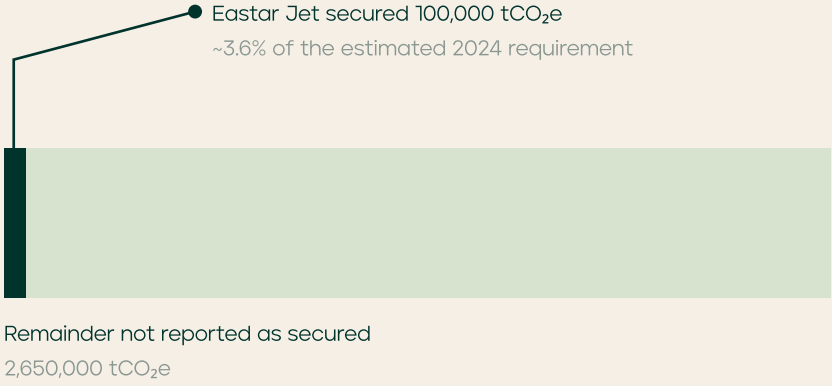
The figures illustrate the distinction between prospective compliance requirements and observable purchasing activity. Korean Air accounts for the largest share of the estimated CP1 cost, at KRW226 billion, but the timing and procurement strategies of individual carriers remain uncertain. With CP1 covering emissions from 2024–2026 and carrying a compliance deadline in January 2028, the extent and timing of any additional purchasing cannot yet be determined.

SOUTH KOREA: ESTIMATED REQUIREMENT VS REPORTED PROCUREMENT

Estimated 2024 CORSIA requirement

2.75m tCO_2e

across South Korean airlines



ESTIMATED CP1 COMPLIANCE COSTS ACROSS SOUTH KOREAN CARRIERS

2024	2025	2026	Total
KRW 75.9bn	KRW 107.8bn	KRW 151.7bn	~KRW 335.4bn

Projected compliance costs, not reported procurement expenditure. Procurement figures reflect information available at the time of reporting and may not capture subsequent or undisclosed purchases.

02

From agreements *to implementation.*

Vietnam moves Singapore *agreement towards implementation*

Vietnam has formally approved its Article 6 Implementation Agreement with Singapore through Resolution No. 235/NQ-CP, moving the bilateral cooperation framework towards operation nearly a year after it was signed in September 2025. The agreement establishes the legal basis for eligible mitigation activities in Vietnam to generate credits that can be recognised and transferred to Singapore under Article 6.

Under Singapore's International Carbon Credit (ICC) Framework, eligible Article 6 credits can be used by covered companies to offset up to 5% of their taxable emissions. The bilateral agreement also requires 5% of credit-sale proceeds to be directed towards climate adaptation in Vietnam, while 2% of correspondingly adjusted credits will be cancelled at first issuance, making those units unavailable for subsequent trading or national accounting.

The development illustrates the additional domestic steps required to move Article 6 cooperation from agreement towards implementation. Details of the project approval process and eligible methodologies are still expected. The timeline highlights the distinction between establishing a bilateral framework and creating an operational pathway through which projects can ultimately generate and transfer ITMOs.

VIETNAM AND SINGAPORE: ARTICLE 6.2 NETWORKS

Implementation agreements establish a framework for Article 6 transfers, while MoUs indicate an earlier stage of cooperation.



Status as of 31 July 2026.
Sources: UNEP Copenhagen Climate Centre Article 6 Pipeline; Singapore Carbon Markets Cooperation.

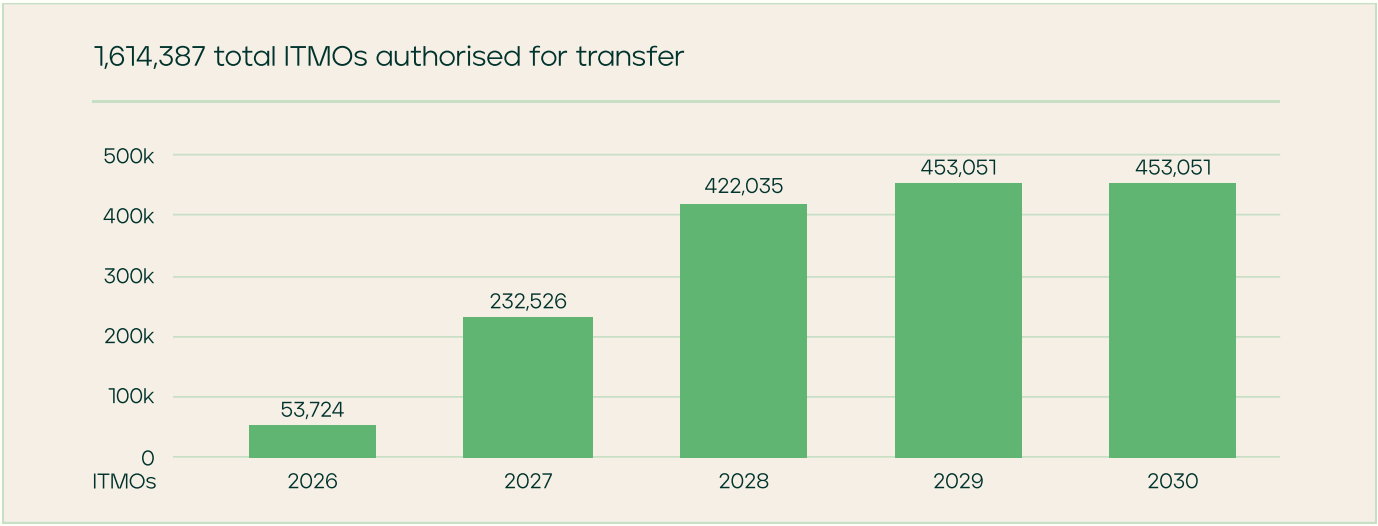
Zambia and Switzerland *authorise further ITMOs*

Zambia and Switzerland have authorised the transfer of approximately 1.61 million ITMOs from clean-cooking activities in Zambia between 2026 and 2030. The authorised volume is expected to come from a project developed by Emerging Cooking Solutions Sweden, with Switzerland's KliK Foundation, which purchases ITMOs for transfer to Switzerland under the country's CO_2 Act, listed as the buyer.

This follows an earlier August authorisation covering 837,043 ITMOs from a separate BioLite cookstove programme in Zambia, also intended for transfer to Switzerland through KliK. Combined, the two August authorisations amount to approximately 2.45 million ITMOs. Transfers will be recorded through the Swiss Emissions Trading Registry and the newly operational Zambia Carbon Registry.

The development places Zambia at a different stage of Article 6 implementation from Vietnam. While Vietnam has established the bilateral framework required for future transfers but still has further domestic implementation details to define, Zambia has progressed to authorising specific project-level volumes and establishing the registry arrangements through which transfers will be recorded. In both cases, the developments illustrate the steps required beyond signing a bilateral agreement before ITMOs can move through an operational Article 6.2 framework.

EXPECTED ITMOs UNDER THE AUTHORISATION, 2026–2030



Annual ITMO volumes expected to be generated for transfer from Zambia to Switzerland under the authorisation. Authorisation does not mean the volumes have already been issued or transferred.

EARLIER AUGUST AUTHORISATION

837,043

ITMOs · BioLite cookstove programme
Zambia → Switzerland

COMBINED AUGUST AUTHORISATIONS

~2.45 million

ITMOs authorised for transfer
Zambia → Switzerland

Source: Zambian authorities, as reported by Quantum Commodity Intelligence. Calculations by Sentinel Earth.

03

CCP-approved methodologies continue *to expand.*

ICVCM approves *4 additional methodologies*

The Integrity Council for the Voluntary Carbon Market (ICVCM) approved 4 additional methodologies under its Core Carbon Principles (CCP) assessment framework in August. The latest approvals cover 2 Verra methodologies, alongside 1 methodology each from ACR and Isometric.

The approvals span several project types. Under Verra's Verified Carbon Standard, VM0051 covers improved water and crop management in rice production to reduce methane emissions and is the second rice methane methodology approved under the CCP framework, following an earlier Gold Standard rice methane methodology. VMR0016 covers the capture and use or flaring of landfill gas and was developed by Verra to replace the legacy ACM0001 and AMS-III.G methodologies. ACR's newly approved methodology covers Improved Forest Management (IFM) on non-federal US forestlands, while Isometric's Agroforestry Protocol applies to projects establishing agroforestry systems.

The latest decisions bring the number of CCP-approved methodologies and protocols across the 3 programmes covered here to 13 for Verra, 4 for ACR and 9 for Isometric, based on the official programme and ICVCM assessment records. The approvals add to the activities represented within the CCP framework, including agricultural methane reductions, landfill gas, forestry and agroforestry.

CCP approval is methodology- and version-specific. Credits must also meet the applicable ICVCM programme-level requirements to be eligible for CCP labelling. This snapshot covers Verra, ACR and Isometric; other approved crediting programmes are not shown.

Verra · VCS

13 Methodologies

- **VM0042** — Improved Agricultural Land Management · v2.2
- **VM0044** — Biochar Utilization in Soil/Non-Soil Applications · v1.2
- **VM0045** — Improved Forest Management Using Dynamic Matched Baselines from National Forest Inventories · v1.2
- **VM0047** — Afforestation, Reforestation and Revegetation · v1.0–1.1
- **VM0048** — REDD+ / Deforestation and Forest Degradation · v1.0
- **VM0050** — Energy Efficiency / Fuel-Switch in Cookstoves · v1.0
- **VM0051** — Improved Management in Rice Production Systems · v1.1 — New · Aug
- **VMR0016*** — Flaring or Use of Landfill Gas · v1.0 — New · Aug
- **VMR0017** — Grid-Connected Renewable Energy · v1.0
- **ACM0001*** — Flaring or Use of Landfill Gas · v15.0–19.0
- **ACM0008** — Methane Abatement from Coal Mines · v6.0–8.0
- **AMS-III.G*** — Landfill Methane Recovery · v9.0–10.0
- **AM0023** — Leak Detection / Repair in Gas and Refinery Systems · v4.0

ACR

4 Methodologies

- **Improved Forest Management (IFM) on Non-Federal U.S. Forestlands** — v1.3 · New · Aug
  v1.3, 2.0 & 2.1
- **Afforestation and Reforestation of Degraded Lands**
  v1.0–1.2
- **Landfill Gas Destruction and Beneficial Use Projects**
  v1.0–2.0
- **Destruction of Ozone Depleting Substances (ODS) from International Sources**
  v1.0

Isometric

9 Protocols

- **Biochar Production and Storage** — v1.0
- **Direct Air Capture** — v1.1
- **Biomass Geological Storage** — v1.0–1.1
- **Bio-oil Geological Storage** — v1.0–1.1
- **Subsurface Biomass Carbon Removal and Storage** — v1.0
- **Biogenic Carbon Capture and Storage** — v1.1
- **Reforestation** — v1.1
- **Mangrove Restoration** — v1.0
- **Agroforestry** — v1.0 — New · Aug

** VMR0016 replaces ACM0001 and AMS-III.G as standalone VCS methodologies from 1 December 2026; eligible legacy versions remain CCP-approved.*

Source: ICVCM Assessment Status, updated 12 August 2026; Verra, ACR and Isometric programme records.

04

The numbers behind the *month.*

August issuance rises, *while retirements ease*

14.54M	5.63M	39%
tCO_2e ISSUED, AUG 2026	tCO_2e RETIRED, AUG 2026	RETIREMENT RATIO

Across the three major voluntary registries, issuance rose 47% year-on-year in August while retirements fell 37%. The retirement-to-issuance ratio dropped from 90% to 39%, its sharpest year-on-year move in the periods covered by this newsletter. The composition also shifted: improved cook stoves and safe water together accounted for 63% of the month's issuance, with no single project dominating the total as Katingan did in July.

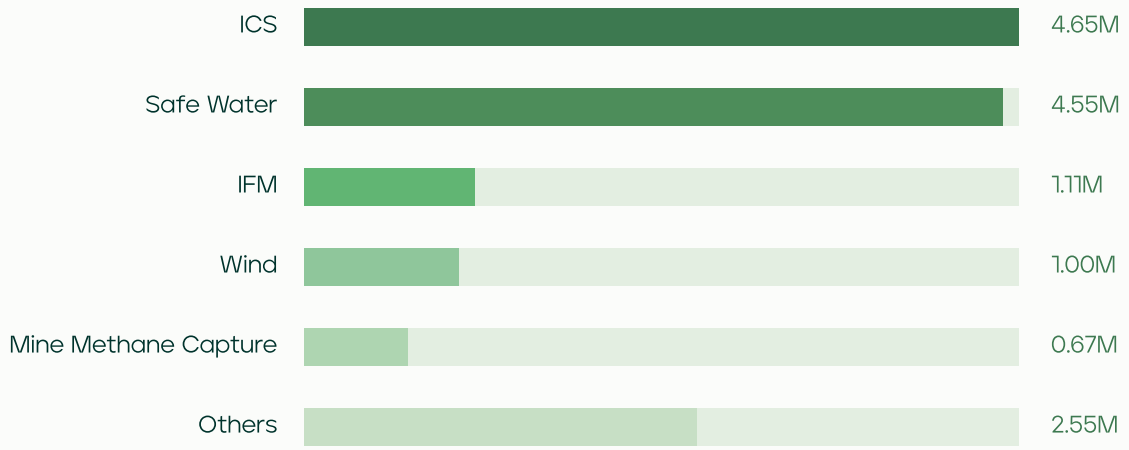
MONTHLY ISSUANCE & RETIREMENT DYNAMICS, YEAR-ON-YEAR ($MtCO_2e$)



Source: Verra, Gold Standard, CAR, compiled by Sentinel Earth.

This chart presents a year-on-year comparison of issuance and retirement volumes for August 2025 and August 2026 (left axis, $MtCO_2e$), alongside the corresponding retirement-to-issuance ratio (right axis, %). The dashed line denotes the ratio computed as total retirements divided by total issuances for each respective period.

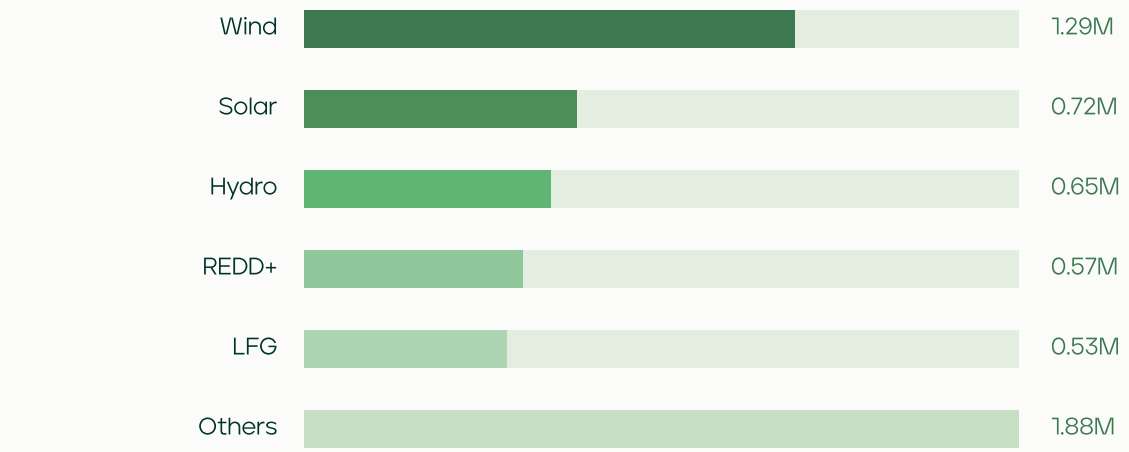
ISSUED BY CATEGORY · AUGUST 2026 ($MtCO_2e$)



ICS = Improved Cook Stoves · IFM = Improved Forest Management

This chart presents the distribution of issued carbon credits by project technology for August 2026, with each bar representing the volume of monthly issuances by technology. 'Others' aggregates all project categories whose issuance volumes fall below those of the five leading technologies displayed in the chart.

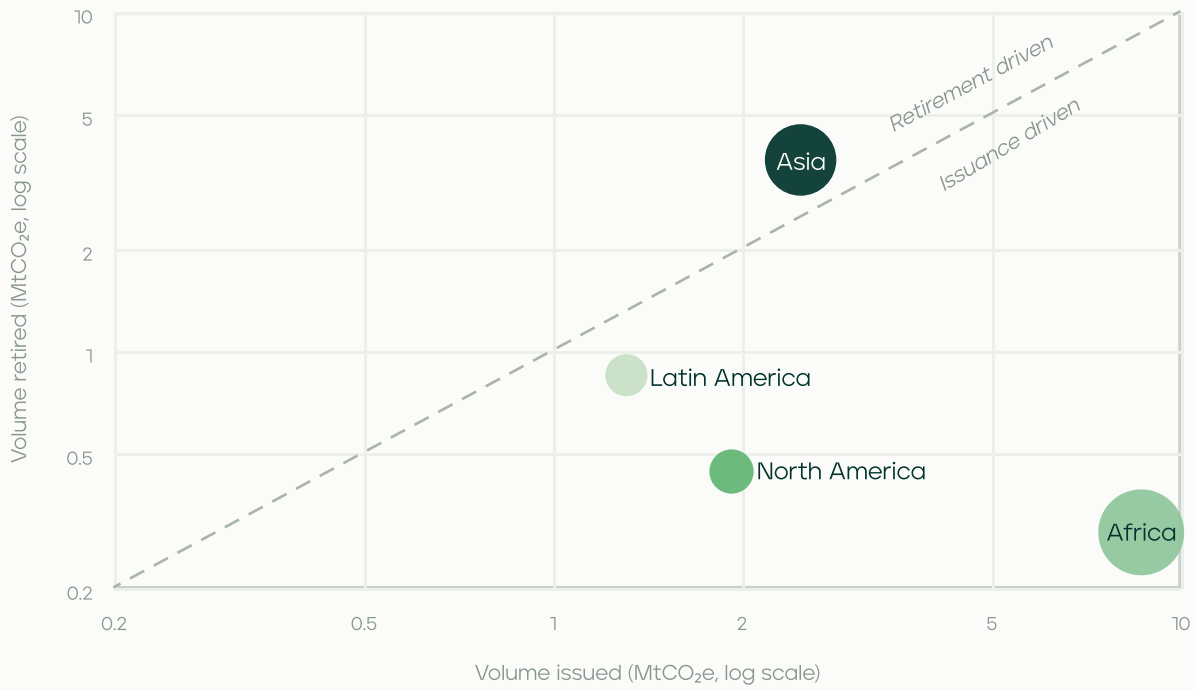
RETIRED BY CATEGORY · AUGUST 2026 ($MtCO_2e$)



LFG = Landfill Gas · REDD+ = Reducing Emissions from Deforestation and Forest Degradation

This chart presents the distribution of retired carbon credits by project technology for August 2026, with each bar representing the volume of monthly retirements by technology. 'Others' aggregates all project categories whose retirement volumes fall below those of the five leading technologies displayed in the chart.

REGIONAL ISSUANCE VS RETIREMENT · AUGUST 2026 ($MtCO_2e$)



This bubble chart compares issuance (x-axis) and retirement (y-axis) volumes by region, with bubble size reflecting the scale of overall activity. Both axes use a logarithmic scale to accommodate the wide spread in regional volumes. Regions above the dashed diagonal are retirement-driven and regions below are issuance-driven. Asia was the only retirement-driven region in August, while Africa sat furthest into issuance-driven territory. The four regions shown account for 14.36 $MtCO_2e$ of issuance and 5.26 $MtCO_2e$ of retirement, so they sum to less than the monthly totals. Volumes from other regions and untagged projects are not plotted.

TOP RETIRING ENTITIES · AUGUST 2026 (tCO_2e)

01	Corpay	211,895
02	Lenovo	136,744
03	Jorge S.L.	119,539
04	Saipem Group	100,000
05	University of Maryland	98,335

Top 5 retiring entities, August 2026. Source: Sentinel Earth.

This chart presents the largest carbon credit retirement volumes recorded during the reporting period, ranked by entity on the basis of total retired volumes (tCO_2e).

05

Four projects.
Three continents.
One team.



SENTINEL EARTH ACTIVE PORTFOLIO

BIOCHAR REMOVAL · SINGAPORE

Dark *Earth*

Singapore's first urban biochar carbon removal project. Chicken manure, recycled wood chips and garden waste are converted through pyrolysis into stable biochar, locking carbon into Singapore's living walls and vertical gardens.

~9,400	Puro.earth	
TCO_2E PER YEAR	REGISTRY	

EV INSETTING · CHINA

Azure *Road*

Battery-swap e-truck network replacing diesel haulage across Inner Mongolia, Hebei, Sichuan and Yunnan, supported by a 4.5 MWp off-grid solar system and battery-swapping station.

44.2%	123Carbon	EACs
GHG REDUCTION	REGISTRY	AVAILABLE NOW

REGENERATIVE AGRICULTURE · UKRAINE

Seeds of *Recovery*

A regenerative agriculture and soil carbon programme with Kernel, Ukraine's largest agricultural producer, using the CCP-approved VM0042 v2.2 methodology across 15,000 hectares in Chernihiv, scaling nationwide.

~96,750	Verra VCS	
TCO_2E PER YEAR	REGISTRY	

F-GAS · ARTICLE 6.2 · MOROCCO

Föhn

Morocco's first integrated recovery-to-destruction system for high-GWP refrigerants from end-of-life cooling equipment. Structured for ITMO transfers between Morocco and Switzerland, with up to 1.53 million tonnes of CO_2e expected to be avoided over 2026–2030.

~300k	Art. 6.2	
TCO_2E PER YEAR	BILATERAL	

Sources

01 · CORSIA

Rwanda authorizes 1.77 million carbon credits from clean cooking project for potential CORSIA eligibility: Africa Sustainability Matters, August 2026

https://africasustainabilitymatters.com/rwanda-authorizes-1-77-million-carbon-credits-from-clean-cooking-project-for-potential-corsia-eligibility/

Rwanda 'authorises' 1.77m cookstoves credits for Corsia: Quantum Commodity Intelligence, 5 August 2026

https://www.qcintel.com/carbon/article/rwanda-authorises-1-77m-cookstoves-credits-for-corsia-70417.html

Central African Republic completes Art. 6 rules, awards Corsia LoA: Quantum Commodity Intelligence, 10 August 2026

https://www.qcintel.com/carbon/article/central-african-republic-completes-art-6-rules-awards-corsia-loa-70700.html

The Reserve advances insurance pathway for CORSIA-eligible credits: Climate Action Reserve, 14 August 2026

https://climateactionreserve.org/blog/2026/08/14/the-reserve-advances-insurance-pathway-for-corsia-eligible-credits/

Korean carriers face $236m bill in Corsia's first phase: Quantum Commodity Intelligence, 11 August 2026

https://www.qcintel.com/carbon/article/korean-carriers-face-236m-bill-in-corsia-s-first-phase-reports-70791.html

Interview: South Korean airlines target price-driven intermediary CORSIA procurement: S&P Global Commodity Insights, 16 July 2026

https://www.spglobal.com/energy/en/news-research/latest-news/energy-transition/071626-interview-south-korean-airlines-target-price-driven-intermediary-corsia-procurement-kis

02 · ARTICLE 6

Vietnam greenlights framework for carbon credit transfers to Singapore: Carbon Herald, August 2026
https://carbonherald.com/vietnam-greenlights-framework-for-carbon-credit-transfers-to-singapore/

Zambia, Switzerland authorise a further 1.6m ITMOs for transfer: Quantum Commodity Intelligence, 26 August 2026
https://www.qcintel.com/carbon/article/zambia-switzerland-authorise-a-further-1-6m-itmos-for-transfer-71702.html

Modern Energy Cooking Zambia authorised: KliK Foundation, 31 August 2026
https://www.klik.ch/en/news/news-article/modern-energy-cooking-zambia-authorised

03 · VOLUNTARY CARBON MARKET

Verra's Rice Cultivation and Landfill Gas Methodologies Receive ICVCM Approval: Verra, 12 August 2026
https://verra.org/verras-rice-cultivation-and-landfill-gas-methodologies-receive-icvcm-approval/

ACR Improved Forest Management Methodology Version 1.3 Earns Core Carbon Principle Approval: ACR, 12 August 2026
https://acrcarbon.org/news/acr-improved-forest-management-methodology-version-1-3-earns-core-carbon-principle-ccp-approval-from-the-integrity-council-for-the-voluntary-carbon-market-icvcm/

ICVCM approves Isometric's Agroforestry Protocol: Isometric, 13 August 2026
https://isometric.com/writing-articles/icvcm-approves-isometrics-agroforestry-protocol

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