SENTINEL EARTH

CARBON INSIGHTS

MONTHLY EDITION · JUNE 2026

Bilateral deals,
new alliances,
and a market in transition

IN THIS ISSUE

ARTICLE 6

01

Bilateral momentum *builds*

Bilateral carbon market activity picked up in June, with countries across Asia, Africa and Europe advancing Article 6 arrangements. These vary in maturity, from early MoUs to operational implementation rules.

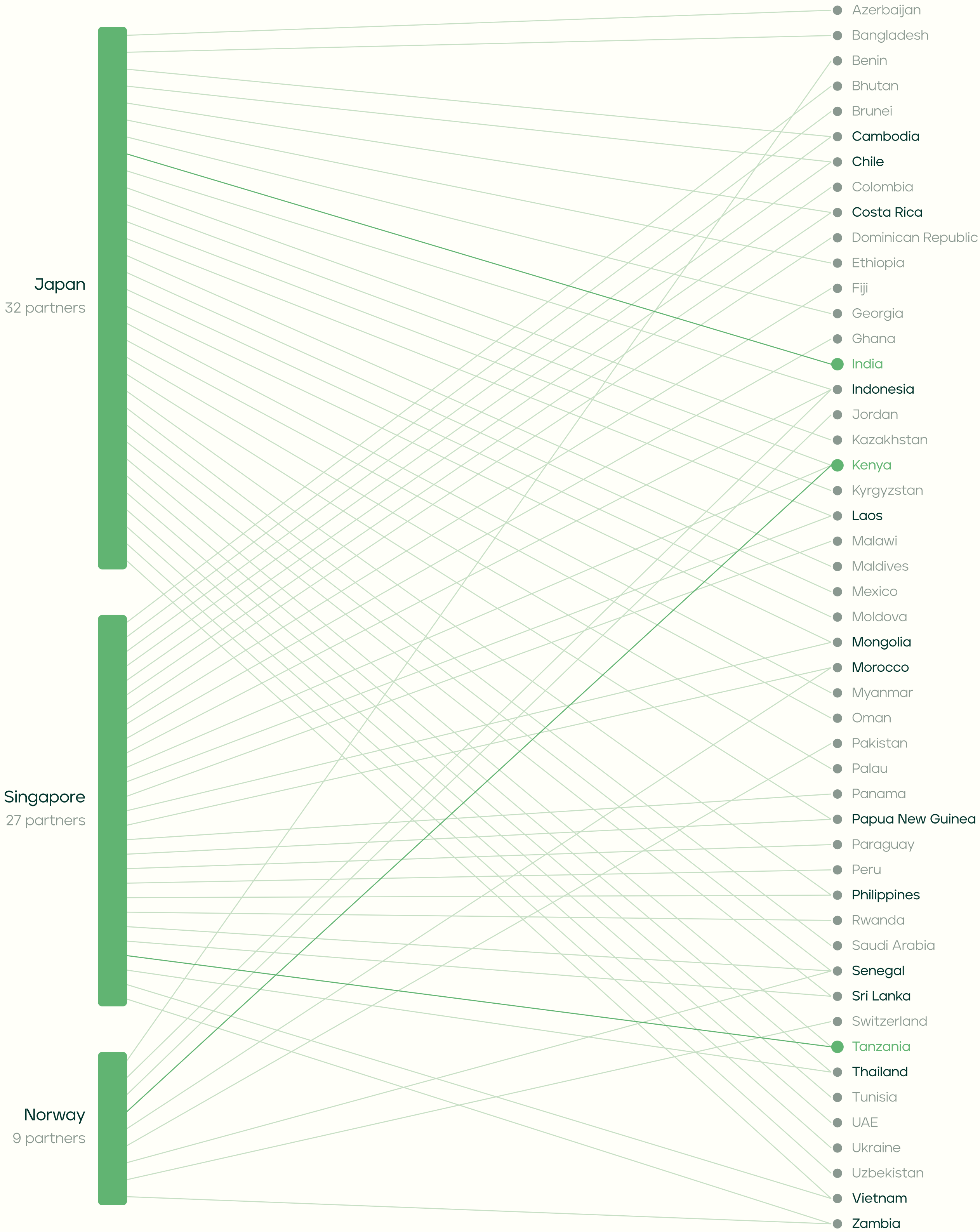
IN THIS SECTION

- India and Japan move JCM into implementation
- Singapore expands its Article 6 network with Tanzania
- Kenya joins Norway's Article 6 network as the supply gap widens
- Ukraine sets domestic rules for ITMO transfers

ARTICLE 6 · BILATERAL NETWORKS

Three buyers, *and their partner networks*

How the Article 6 partner networks of Japan, Singapore and Norway overlap, across all agreement types from implementation agreements to early MoUs. Countries in bold appear in more than one network. June's three new deals are highlighted in green.



Sources: Japan MoE, carbonmarkets-cooperation.gov.sg, regjeringen.no

INDIA · JAPAN · JCM

India and Japan move *JCM into implementation*

India and Japan have agreed on the implementation rules for their Joint Crediting Mechanism, following the bilateral Memorandum of Cooperation (MoC) signed in August 2025. The rules, adopted on 8 June by the Joint Committee overseeing the deal, set out the full project cycle: how credits are authorised, how corresponding adjustments are applied, and how mitigation outcomes are allocated between Japan's and India's nationally determined contributions. Project developers must register with India's Carbon Market portal to receive letters of authorisation. All proposed projects must align with India's approved list of eligible Article 6.2 activities, set out in a 2024 government list covering 14 activities across three categories: mitigation technologies such as offshore wind, green hydrogen, sustainable aviation fuel and clean cooking at scale; alternate materials, namely green ammonia; and removals through carbon capture, utilisation and storage. Project proponents must also submit a Sustainable Development Implementation Plan alongside their project design document, forming part of the host-country review process.

With the rules now in place, projects can begin moving through the approval pipeline, marking the point where the MoU shifts from political commitment to operational reality. The agreement also advances Japan's broader JCM strategy, under which it aims to secure around 100 million tonnes of cumulative emission reductions and removals by 2030, the largest single national demand signal under Article 6. Credit issuance today, however, remains concentrated in projects under Japan's existing JCM partnerships, particularly Cambodia's REDD+ project.

JCM CREDIT ISSUANCE REMAINS HIGHLY CONCENTRATED

817,217 tCO_2e issued to date across 48 projects

JCM AT A GLANCE

32	293	48	~91%
PARTNER COUNTRIES	PROJECTS REGISTERED	PROJECTS ISSUING MITIGATION OUTCOMES	OF ISSUED CREDITS ALLOCATED TO JAPAN

SINGAPORE · TANZANIA · ARTICLE 6 MOU

Singapore expands its *Article 6 network with Tanzania*

Singapore and Tanzania signed a memorandum of understanding on Article 6 cooperation on 9 June, during a state visit to Tanzania by Singapore President Tharman Shanmugaratnam. The MoU commits both countries to explore bilateral cooperation under Article 6, identify projects that could be developed, and work towards a legally binding implementation agreement covering the authorisation and international transfer of correspondingly adjusted mitigation outcomes. An MoU is an early-stage step: it signals political intent but does not yet establish the legal framework for transferring ITMOs. The implementation agreement that follows establishes the legal basis for authorising credits and applying the corresponding adjustments needed for international transfer, though actual issuance still depends on each country having the registries, authorisation procedures and reporting systems in place.

For Singapore, the agreement further expands its Article 6 partnership network. The city-state has now signed 11 implementation agreements and 16 MoUs under Article 6, part of a deliberate strategy to secure credit supply ahead of its 2030 climate targets. For Tanzania, the MoU adds a second major Article 6 partner alongside its existing JCM partnership with Japan, strengthening its position as an emerging host country for Article 6 projects in East Africa.

SINGAPORE'S ARTICLE 6 NETWORK

11 Implementation Agreements BINDING

Bhutan · Chile · Ghana · Mongolia · Paraguay · Papua New Guinea · Peru · Rwanda · Thailand · Vietnam · Philippines

16 Memoranda of Understanding EARLY-STAGE

Brazil · Cambodia · Colombia · Costa Rica · Dominican Republic · Ethiopia · Fiji · Kenya · Laos · Malawi · Malaysia · Morocco · Senegal · Sri Lanka · Zambia · Tanzania NEW

Singapore Carbon Markets Cooperation portal, June 2026

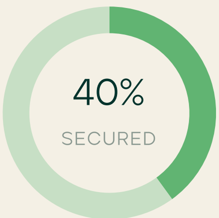
NORWAY · KENYA · SUPPLY GAP

Kenya joins Norway's Article 6 network *as the supply gap widens*

Norway signed a letter of intent with Kenya on 12 June, making the east African nation the eighth country in Norway's Article 6 partnership network, alongside Benin, Indonesia, Jordan, Morocco, Pakistan, Senegal and Zambia. The agreement focuses on building longer-term credit supply rather than committing to specific near-term delivery volumes. That focus reflects Norway's own supply challenge: it has secured around six million future ITMO deliveries against an estimated requirement for 15 million ITMOs by 2030.

To close that gap, Norway has set aside NOK 15 billion to purchase ITMOs for its 2030 target, with a further NOK 3 billion earmarked for obligations under the EU Effort Sharing Regulation. Purchases are made through the Norwegian Global Emission Reduction Initiative, which prioritises emission-reduction projects, particularly renewable energy, and steers away from activities that risk prolonging fossil fuel production.

NORWAY'S SUPPLY GAP



6M

SECURED

through NOGER programme

9M

GAP

still to close by 2030

Norway needs 15M ITMOs by 2030. It has secured roughly 6M, 40% of the total requirement.

UKRAINE · DOMESTIC FRAMEWORK

Ukraine sets domestic rules for *ITMO transfers*

Ukraine's Cabinet of Ministers approved a domestic regulatory framework for Article 6 carbon market participation on 11 June, creating the legal and administrative framework needed to authorise and transfer ITMOs internationally. The framework establishes a two-year pilot phase to test the issuance, transfer and reporting of credits before any full-scale rollout. Priority sectors include renewable energy infrastructure, fuel combustion, industrial production, agriculture, waste management, and forestry. Annual authorised issuance is capped at 1% of Ukraine's 1990 greenhouse gas emissions, which works out to a ceiling of roughly 7–9 million ITMOs per year, and developers must reserve at least 2% of issued credits for Ukraine's own climate targets.

Ukraine has already signed Article 6.2 cooperation agreements with Switzerland and Japan. Putting this framework in place during the war signals that Ukraine sees Article 6.2 as part of its longer-term economic recovery, using its emissions reduction potential to attract climate finance for reconstruction.

CORSIA

02

A scheme *under pressure*

The pressure on CORSIA this June came from the demand side. Prices drifted lower through the year, and the quarterly procurement events designed to move credits were dropped. IATA responded on two fronts: an alliance to bring more countries into the supply of eligible credits, and a buy-now-pay-later platform to draw airlines into purchasing. Meanwhile, the EU weighed rules that would apply only to its own carriers, raising the prospect of a more fragmented market.

IN THIS SECTION

- A new supply alliance, and the EU pulling away from CORSIA
- Prices fall by half as the quarterly procurement events end

IATA · SUPPLY ALLIANCE · EU

On 6 June, IATA launched the Supporting Alliance for CORSIA EEU Supply to tackle the projected shortage of credits coming to market, bringing together 16 airlines and a range of carbon market participants, including Climate Action Reserve, Gold Standard, Kita and IETA, with the aim of scaling eligible supply to 250 million tonnes of CO_2 equivalent by 2027. The problem it targets is a structural bottleneck. Eligible programme issuances must still convert into CORSIA-eligible credits through one of two recognised pathways: host-country authorisation through Letters of Authorisation with corresponding adjustments, or the insurance-backed pathway. However, many potential supplier countries are not yet operationally ready to issue Letters of Authorisation, limiting the growth of authorised supply. To ease this, the alliance will offer pro bono support to host countries that want to authorise domestic credits. A further source of uncertainty is the European Commission's review of whether to extend EU ETS pricing to all flights departing the region and whether to exclude certain eligible credit types, including high-forestation, low-deforestation (HFLD) credits, from use by EU airlines. Either move would put EU carriers on a different track from the rest of the scheme. The US has indicated it will resist any attempt to extend EU ETS pricing to long-haul flights, raising the broader concern that a single global scheme could fragment into regional rules.

Even as long-term supply remains constrained by host-country readiness, CORSIA-labelled supply continues to expand, with 70 authorised projects across 10 host countries now eligible under the scheme.

TOTAL CORSIA-ELIGIBLE ISSUANCE AND RETIREMENT

~37.9M ISSUED → ~437k RETIRED

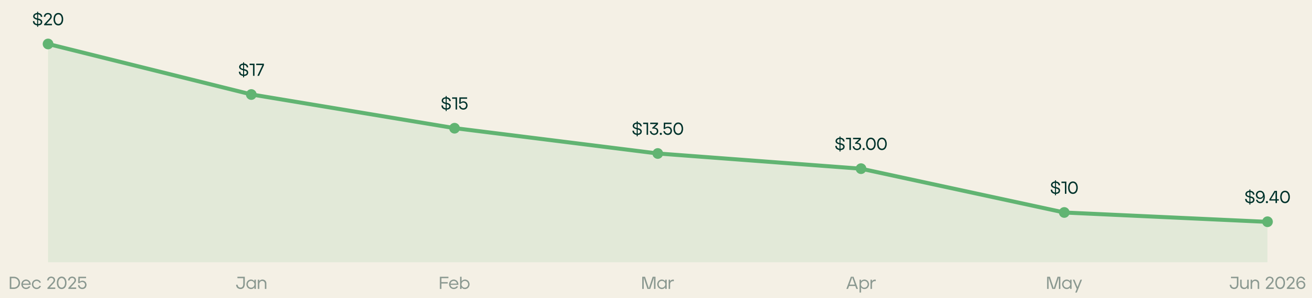
BREAKDOWN ACROSS GOLD STANDARD AND VERRA

	ISSUED	RETIRED
Gold Standard	1,430,885	181,498
Verra	12,052,323	255,459

IATA · PROCUREMENT · PRICING

With many airlines delaying purchases until the first compliance period approaches, IATA changed how credits are sold. The quarterly procurement events have been quietly dropped in favour of a buy-now-pay-later platform, launched with Xpansiv's Air Carbon Exchange and commodities trader Mercuria. Under the deferred payment model, airlines can secure eligible credits while postponing payment, a move aimed at stimulating demand. Those events had been the main venue for CORSIA trades since they began: the first, in late 2024, sold Guyana's jurisdictional REDD+ credits at $21.70 per tonne, with Japan Airlines, All Nippon Airways and Turkey's Pegasus among the early buyers. By the Q1 2026 event, prices had eased to around $18. Since then, demand has weakened further: Guyana, the biggest seller through the events, stopped participating at the end of last year, and prices for exchange-traded eligible units have roughly halved since the start of the year to below $10 per tonne. Demand is expected to remain subdued until the first compliance period begins.

CORSIA EEU SPOT PRICE, 2025-26 (USD)



EU ETS ALLOWANCE VS CORSIA EEU SPOT

CORSIA EEU FORWARD PRICES

$9.40	$9.25	$9.50
SPOT	DEC 2026 DELIVERY	2027 DELIVERY

Prices hold steady across the forward dates, from today's spot through to 2027.

VOLUNTARY CARBON MARKET

The rulebook and *the registry.*

June brought important structural developments across the voluntary carbon market. SBTi published the long-awaited Net-Zero Standard V2.0, while Verra announced the rollout of its next-generation registry, signalling continued investment in both market rules and infrastructure.

IN THIS SECTION

SBTI · CORPORATE NET-ZERO STANDARD V2.0

SBTi formally recognises *carbon credits in V2.0 standard*

The Science Based Targets initiative published version 2.0 of its Corporate Net-Zero Standard on 11 June, after more than two years of development. Its most significant change is a new framework, called Ongoing Emissions Responsibility that formally recognises carbon credits as a complement to, rather than a substitute for, direct emissions reductions. This includes removal, emissions reduction and avoidance credits, but any credits used are reported separately and do not count towards a company's science-based targets. The standard becomes available for voluntary use from Q1 2027.

A second notable change concerns market instruments. V2.0 formally recognises energy attribute certificates and commodity certificates that use chain-of-custody models such as book-and-claim, allowing them to support Scope 3 target implementation where companies can demonstrate direct supplier-level action is not feasible, subject to integrity criteria. This opens a clearer route for market-based approaches to supply chain decarbonisation, particularly in shared systems such as electricity grids and transport.

A larger obligation takes effect later. From 2035, Category A companies with validated targets will be required to address a portion of their ongoing emissions through durable carbon removals, starting at a minimum of 10% and rising to full neutralisation by their net-zero target year. Detailed guidance on how companies can use the carbon market is not expected until the end of 2027. Reaction was mixed. Some welcomed the formal recognition of credits and the firmer post-2035 removal requirements, while others argued the standard gives companies little reason to address ongoing emissions before 2035.

The formal recognition of book-and-claim for Scope 3 is a development we're watching closely. For logistics operators trying to cut freight emissions, where changing every supplier or route is rarely feasible, credible book-and-claim pathways are one of the few practical levers available. Our Azure Road project in China is a direct example: see the project spotlight on page 21.

SBTi SYSTEM AT A GLANCE

11,389

STILL RISING

COMPANIES WITH VALIDATED TARGETS

13,762

COMPANIES IN SYSTEM OVERALL

2,655

COMPANIES WITH NET-ZERO TARGETS

VERRA · S&P GLOBAL ENERGY · REGISTRY

Verra and S&P Global launch *next-generation registry* on 27 July

Verra and S&P Global Energy will launch Verra's next-generation registry on 27 July, replacing the Xpansiv/APX system, which has long been criticised for bottlenecks, delays and operational complexity. Built on S&P Global Energy's Environmental Registry infrastructure, the new platform will introduce a modernised interface and integration with the Verra Project Hub, aimed at improving transparency, traceability and efficiency across the credit lifecycle. Verra describes it as the most significant upgrade to the registry in its history, which carries weight given its scale: Verra is the largest of the voluntary standards, with over 1.3 billion credits issued to date.

The rollout comes in stages. The first brings the new interface and Project Hub integration; a later phase will add transaction-ready APIs, allowing automated transfers and retirements, connecting the registry to exchanges and brokers, and building compatibility with Article 6 and CORSIA requirements. Account holders will be contacted about any actions needed ahead of the switch, and Verra is running training and support in the weeks before launch.

SUPPLY, DEMAND & PRICING

04

The numbers behind the *month.*

A look at what moved in the Voluntary Carbon Market in June 2026: issuance and retirement.

IN THIS SECTION

- Voluntary carbon market: issuance & retirement dynamics
- Issuance and retirement by project category
- Regional activity and top retirement buyers

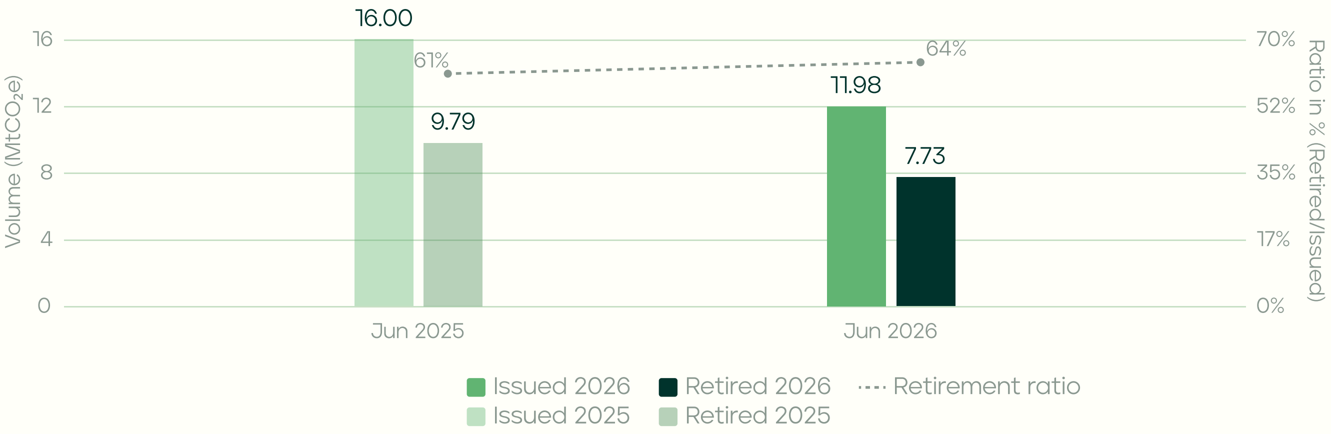
VOLUNTARY CARBON MARKET

Issuance falls, retirement ratio rises

11.98M	7.73M	~64%
TCO_2E ISSUED, JUN 2026	TCO_2E RETIRED, JUN 2026	RETIREMENT RATIO

Across the three major voluntary registries, both issuance and retirement fell year-on-year in June. Issuance dropped more steeply, raising the retirement-to-issuance ratio from 61% to 64% as demand absorbed a larger share of a shrinking supply.

MONTHLY ISSUANCE & RETIREMENT DYNAMICS, YEAR-ON-YEAR ($MTCO_2E$)

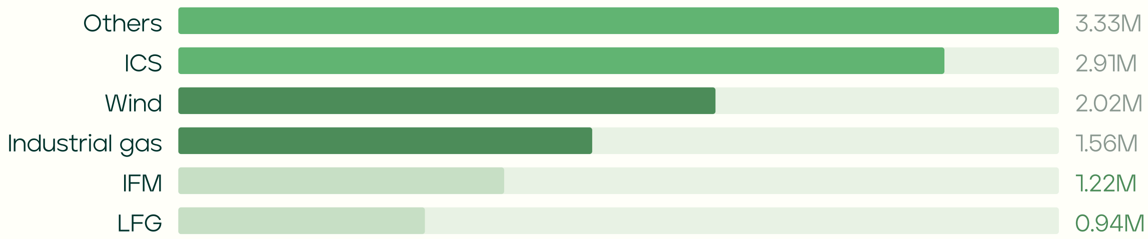


Source: Verra, Gold Standard, CAR, compiled by Sentinel Earth.

This chart presents a year-on-year comparison of issuance and retirement volumes for June 2025 and June 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.

VOLUNTARY CARBON MARKET

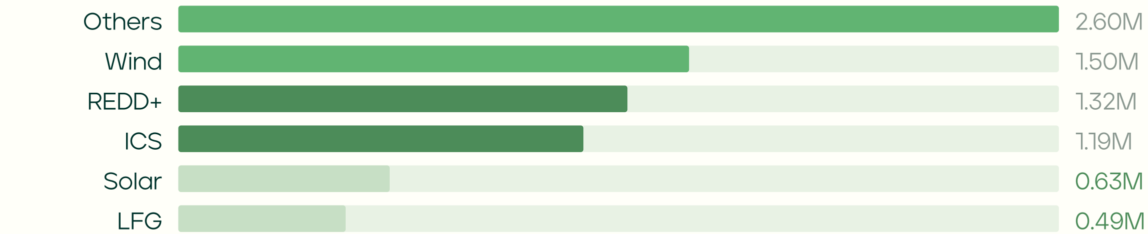
ISSUED BY CATEGORY · JUNE 2026 ($MtCO_2e$)



ICS = Improved Cook Stoves · IFM = Improved Forest Management · LFG = Landfill Gas

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

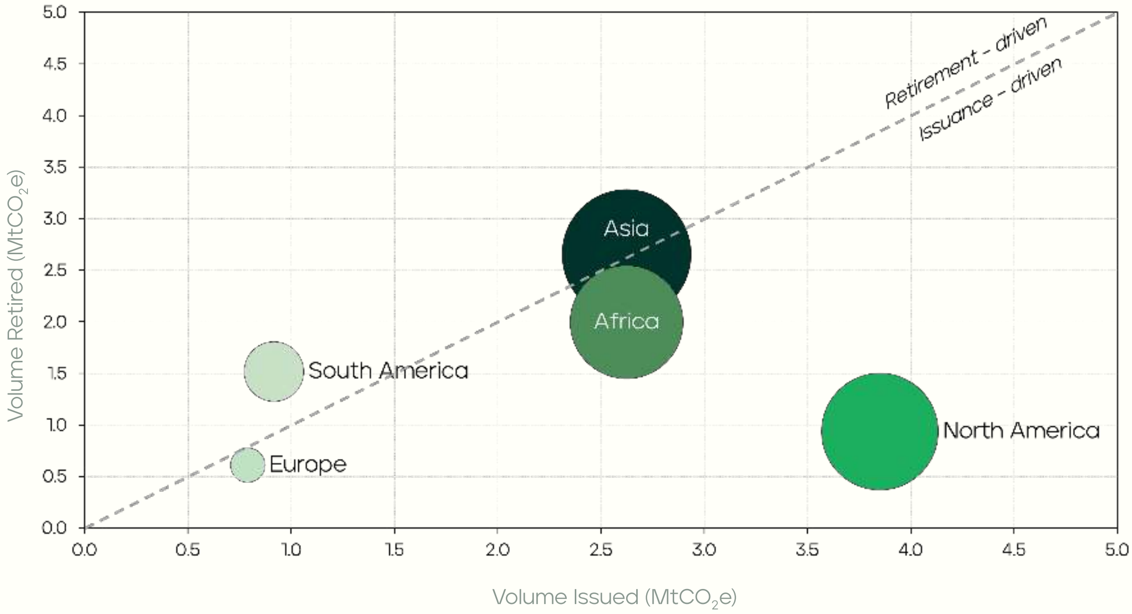
RETIRED BY CATEGORY · JUNE 2026 ($MtCO_2e$)



ICS = Improved Cook Stoves · LFG = Landfill Gas

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

REGIONAL ISSUANCE VS RETIREMENT · JUNE 2026 (MTCO$_2$E)



Bubble size reflects total activity (issued + retired). Regions above the diagonal are retirement-driven; below are issuance-driven.

This bubble chart compares issuance (x-axis) and retirement (y-axis) volumes by region, with bubble size reflecting the scale of overall activity. The dashed diagonal line distinguishes retirement-driven regions, positioned above, from issuance-driven regions, positioned below.

TOP RETIREMENT BUYERS · JUNE 2026 (tCO$_2$e)

01	Shaw Industries Group	265,000
02	Lenovo	238,120
03	ENERGY Joburg RF	227,834
04	Eden Exchange	136,000
05	Netflix	117,317

Top 5 individual retirement buyers, June 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$_2$e).

OUR PROJECTS

Four projects.
Three continents.
One team.

05

IN THIS SECTION

- Azure Road: EV insetting, China
- Dark Earth: biochar removal, Singapore
- Seeds of Recovery: regenerative agriculture, Ukraine
- Föhn: refrigerant abatement, Morocco

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 TCO_2E PER YEAR	Puro.earth REGISTRY	11 SUSTAINABLE CITIES AND COMMUNITIES · 13 CLIMATE ACTION

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 and swapping station.

44.2% GHG REDUCTION	123Carbon REGISTRY	EACs 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 TCO_2E PER YEAR	Verra VCS REGISTRY	6 · 9 · 12 · 13 · 14 · 15

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. ITMOs transferred between Morocco and Switzerland, with up to 1.53 million tonnes of CO_2e avoided over 2026–2030.

~300k TCO_2E PER YEAR	Art. 6.2 BILATERAL	1 · 4 · 5 · 8 · 12

Azure Road

Battery-swap EV insetting · China · EACs now issued

EACs	44.2%	China
NOW AVAILABLE	GHG REDUCTION	EV LOGISTICS

Azure Road's battery-swap e-truck network has reached a milestone: EACs are now issued and available to buy. A fleet of 287 battery-electric trucks operates across Inner Mongolia, Hebei, Sichuan and Yunnan, supported by a 4.5 MWp off-grid solar and battery-swapping station. The project replaces diesel haulage with electric trucks powered by renewable energy, delivering a 44.2% GHG reduction against the diesel baseline in 2025, expected to rise to 70%+ by 2028. It issues energy attribute certificates that logistics operators can use towards their own supply chain emissions targets.

The timing is significant. Under SBTi's new Corporate Net-Zero Standard V2.0, book-and-claim instruments like these are formally recognised to support Scope 3 target implementation where direct supplier-level action is not feasible, subject to integrity criteria. Azure Road's EACs sit within Scope 3 categories 4 and 9, covering upstream and downstream freight emissions that are typically among the hardest for companies to reduce directly.

For companies, this offers a credible, verifiable way to account for freight decarbonisation without having to re-engineer their entire haulage network. For Sentinel Earth, it is an example of the kind of book-and-claim pathway we expect to see more of as the standard takes hold.

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01 · ARTICLE 6

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02 · CORSIA

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03 · VOLUNTARY CARBON MARKET

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