

VOLUNTARY CARBON MARKET

2023 REVIEW



January 2024

LOOKING BACK AT A CHALLENGING YEAR

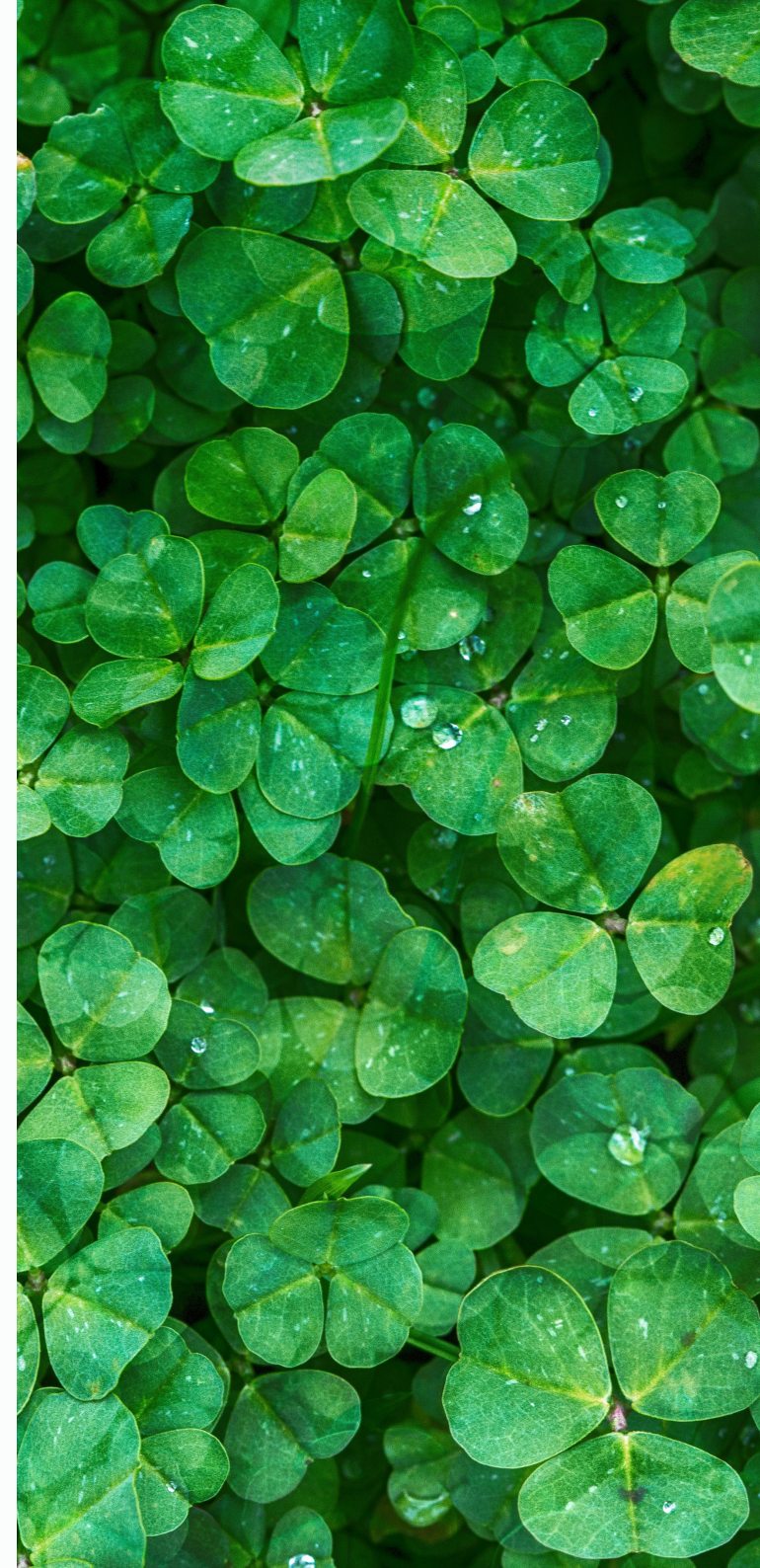
2023 will enter the books as a difficult year for the Voluntary Carbon Market (VCM). Headlines about record breaking issuance levels, peak valuations, and ever-rising prices made room for mounting criticism about the market's ability to safeguard integrity and transparency.

On the part of buyers and investors, caution has been the leading theme, driven by several compounding factors: i) concerns surrounding the environmental integrity of key project activities; ii) discussions around the appropriateness of offsetting claims; iii) continued lack of clarity on the role of voluntary carbon markets in the context of Article 6 of the Paris Agreement; and iv) a gloomy investor sentiment triggered by tightening monetary policies and rising cost of capital globally.

Despite these uncertainties, the market has managed to hold up. This 2023 VCM Review by Climate Focus¹ shows that declines in market activity were contained, pointing towards market consolidation and portfolio recalibration, rather than a major correction. Our discussions with buyers and investors reveal that they considered 2023 to be a year in which large investment decisions had been put on hold until clarity is gained around how the abovementioned risks can be managed. At the same time, willingness to pay for high-quality projects very much remained, as evidenced by over-the-counter transactions witnessed over the past year.

We expect the market to consolidate in 2024, with progress on the definition and use of high-integrity carbon credits, guidance on claims, and further clarity around the role of carbon credits in the net zero transition offering opportunities for the market to regain confidence and trust. These are all necessary steps to ensure the carbon market can act as an effective mechanism to strengthen international cooperation around climate action and channel financial resources into climate change mitigation activities globally.

¹ The VCM Review is powered by the VCM Dashboard maintained by Climate Focus. The [VCM Dashboard](#) currently tracks market activity from the following leading carbon standards: American Carbon Registry, ART, BioCarbon, Cercarbono, Climate Action Reserve, Climate Forward, Global Carbon Council, Gold Standard, Plan Vivo and Verra's VCS.

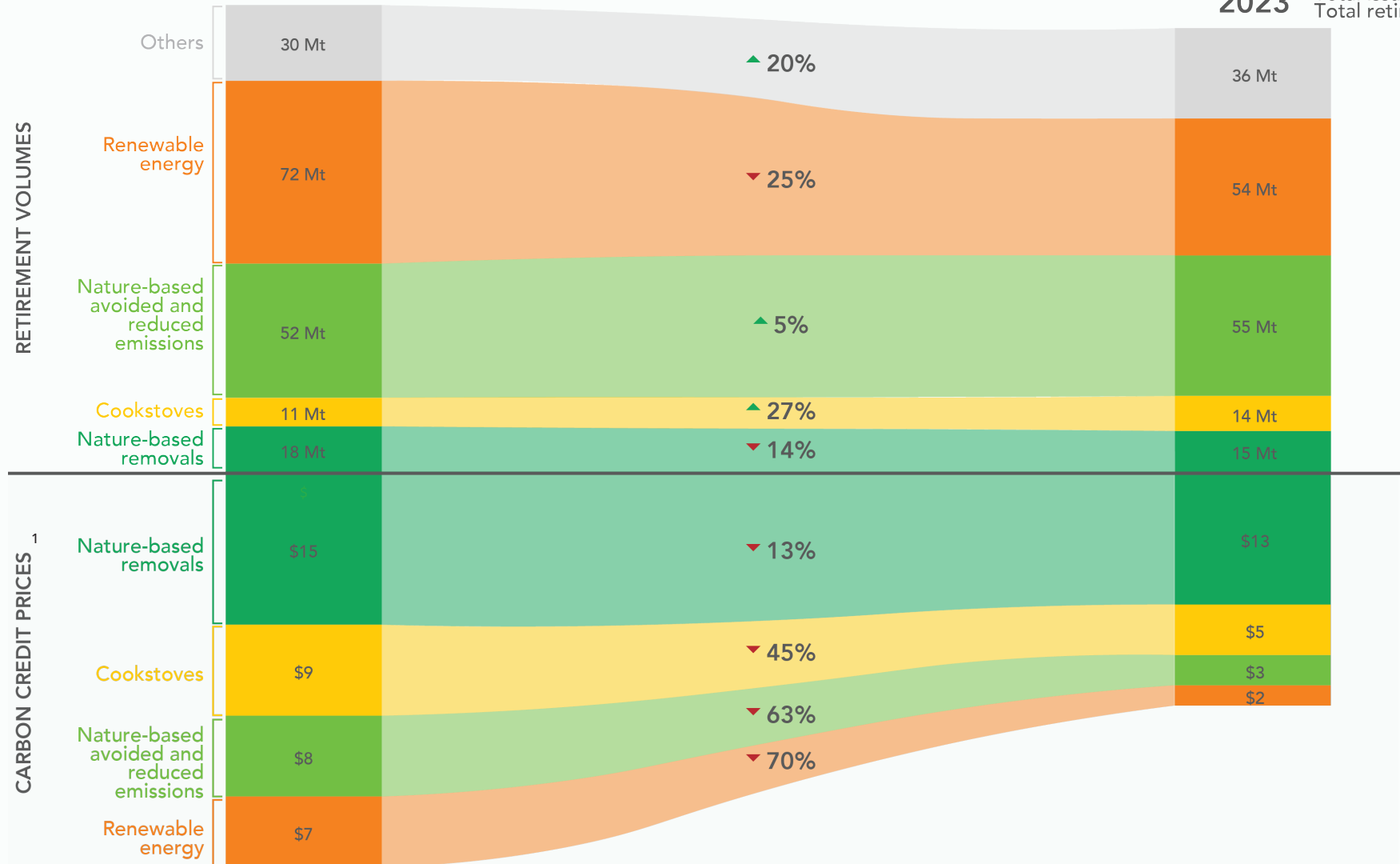


2023 IN NUMBERS

Total issuances: 353 Mt
Total retirements: 183 Mt

2022

2023 Total issuances: 308 Mt
Total retirements: 174 Mt



¹ Presented carbon prices are based on average carbon prices transacted on leading exchanges across selected project categories as of end of 2022 (left-hand side) and end of 2023 (right-hand side). These prices serve as indicative data points only and do not reflect the prices that individual projects may expect to attain in the market today. Project-level transaction data observed by Climate Focus indicates that prices offered by buyers for individual projects can both subceed and considerably exceed the prices listed here.

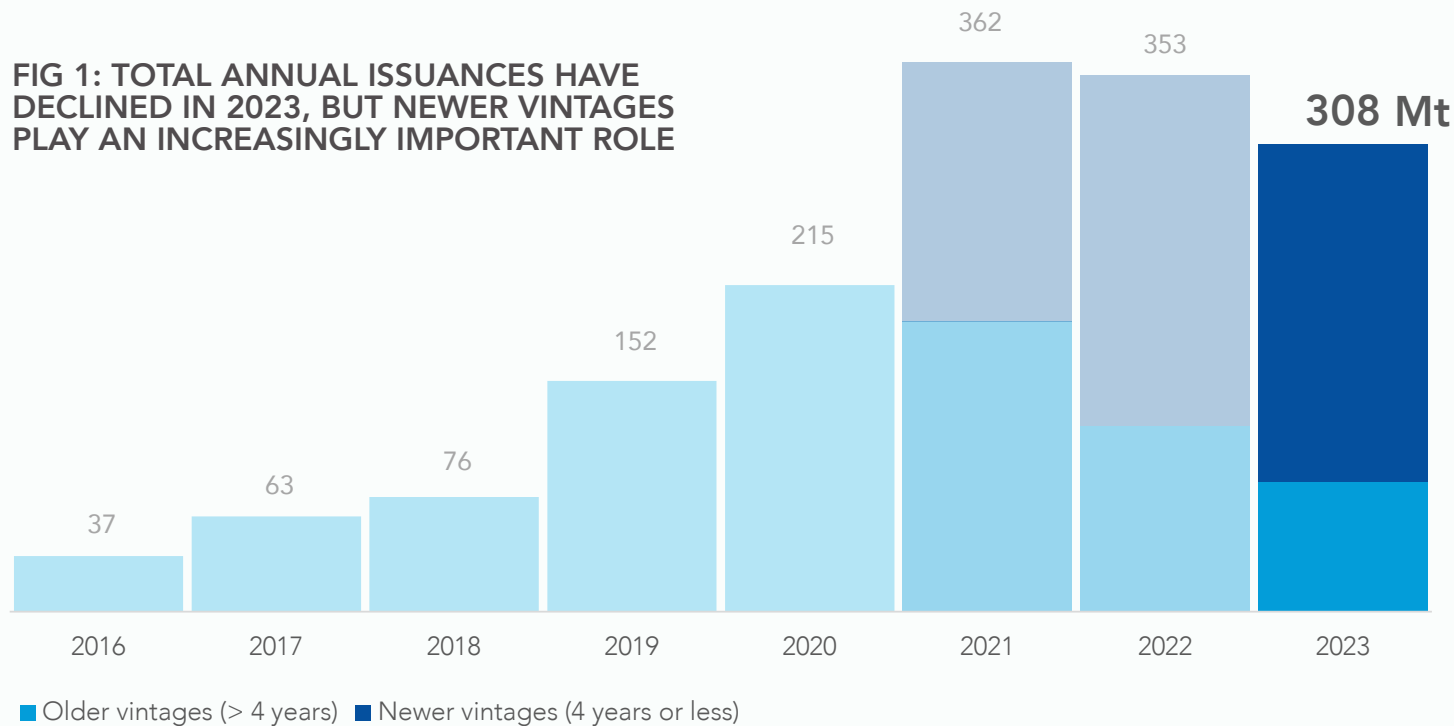


TOTAL ISSUANCES FALL BUT ROLE OF NEW VINTAGES RISES

Annual carbon credit issuances hit a record high in 2021, with 2022 delivering similar results. 2023 marked a retreat from these peaks, recording a 13 percent decline in credit issuances.¹ Despite this drop, we observe that older vintages of carbon credits have played a diminishing role in last year's issuances – less than one-third of all carbon credits issued in 2023 related to pre-2020 vintages. In the record-breaking year 2021, over half of issued carbon credits related to emission reductions or removals generated more than four years prior.

This signals an important trend change in the market. Project developers brought to market a backlog of older carbon credits when prices appreciated in the period 2019 to mid-2022. With a share of these older volumes now transacted, and increased buyer scrutiny on the quality of credits², the role of newer vintages increased both in absolute and relatively terms in 2023.

FIG 1: TOTAL ANNUAL ISSUANCES HAVE DECLINED IN 2023, BUT NEWER VINTAGES PLAY AN INCREASINGLY IMPORTANT ROLE



¹ Carbon credits certified under Verra's VCS represented 48% of total issuances recorded in 2023, followed by the Gold Standard at 20%, Cercarbono at 16%, ACR at 9%, CAR at 3%, BioCarbon at 2%, and Plan Vivo, GCC and Climate Forward below 1%.

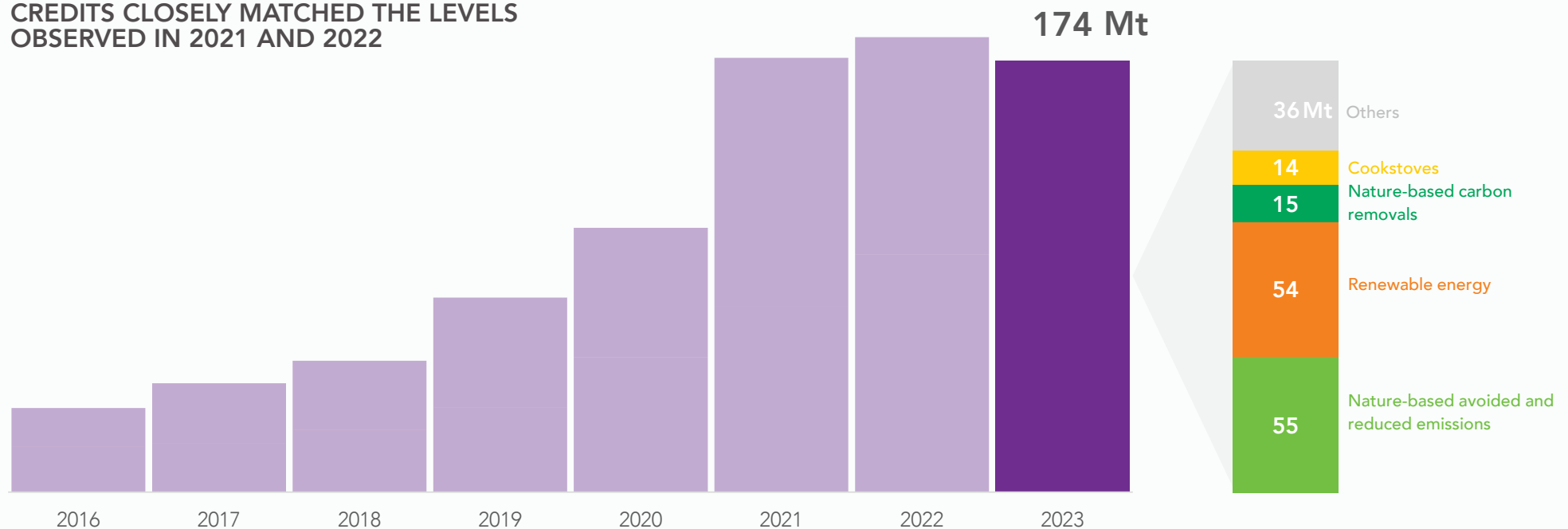
² Buyers in the market generally attribute a higher value to emission reductions or removals that closely match the year of corporate emissions that are being compensated for. In addition, newer vintages are more likely to be issued on the basis of newer versions of methodologies, which tend to be associated with higher environmental integrity.

RETIREMENTS OF CARBON CREDITS HOLD STEADY

Despite the challenges of 2023, buyers continued using carbon credits as part of corporate climate strategies. Total retirements matched the volumes of the previous two years, and represented nearly 20 percent of all historical retirements in the VCM. Notably, carbon credit retirements set a record monthly high of 38 Mt in December 2023. This represents a 35 percent increase over the previous monthly record set in December 2021.

This indicates that despite announced intentions of a number of large buyers to step out of the market¹, aggregate end-use of carbon credits has not declined in 2023. Instead, we see a growing number of buyers in the market recalibrating their portfolio and stress-testing it against environmental integrity risks while continuing to retire carbon credits purchased in previous years.

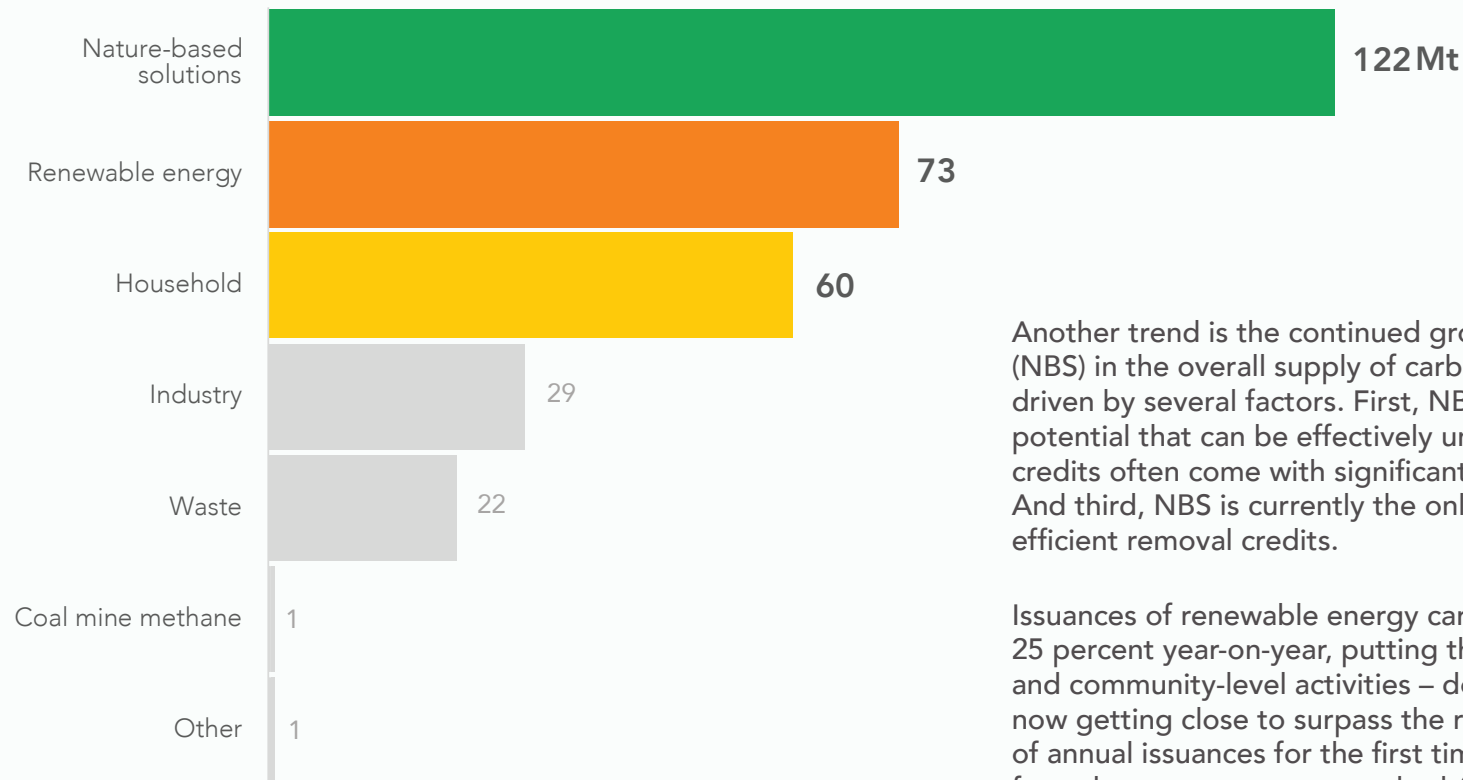
FIG 2: RETIREMENTS OF CARBON CREDITS CLOSELY MATCHED THE LEVELS OBSERVED IN 2021 AND 2022



¹ e.g. see reporting on several corporate announcements reported by Reuters earlier in the year ([here](#)).

ISSUANCES FROM NATURE-BASED SOLUTIONS TAKE THE LEAD

FIG 3: ISSUANCES FROM NATURE-BASED SOLUTIONS DOMINATED SUPPLY AS ROLE OF RENEWABLE ENERGY DECLINED



Another trend is the continued growing role of nature-based solutions (NBS) in the overall supply of carbon credits. The interest in NBS is driven by several factors. First, NBS projects offer a large mitigation potential that can be effectively unlocked by the VCM.¹ Second, NBS credits often come with significant social and environmental benefits. And third, NBS is currently the only project category that offers cost-efficient removal credits.

Issuances of renewable energy carbon credits have declined by around 25 percent year-on-year, putting the sector in second place. Household and community-level activities – dominated by cookstove projects – are now getting close to surpass the renewable energy sector in terms of annual issuances for the first time. In 2023, carbon credit issuances from these programmes reached 60 Mt, representing more than double of that the year before.

¹ See the *Global analysis of available supply potential of nature-based emission reductions and removals* produced by Climate Focus and the Food and Land Use Coalition ([here](#)).

ROLE OF NBS CARBON REMOVAL CREDITS SLOWLY RISING

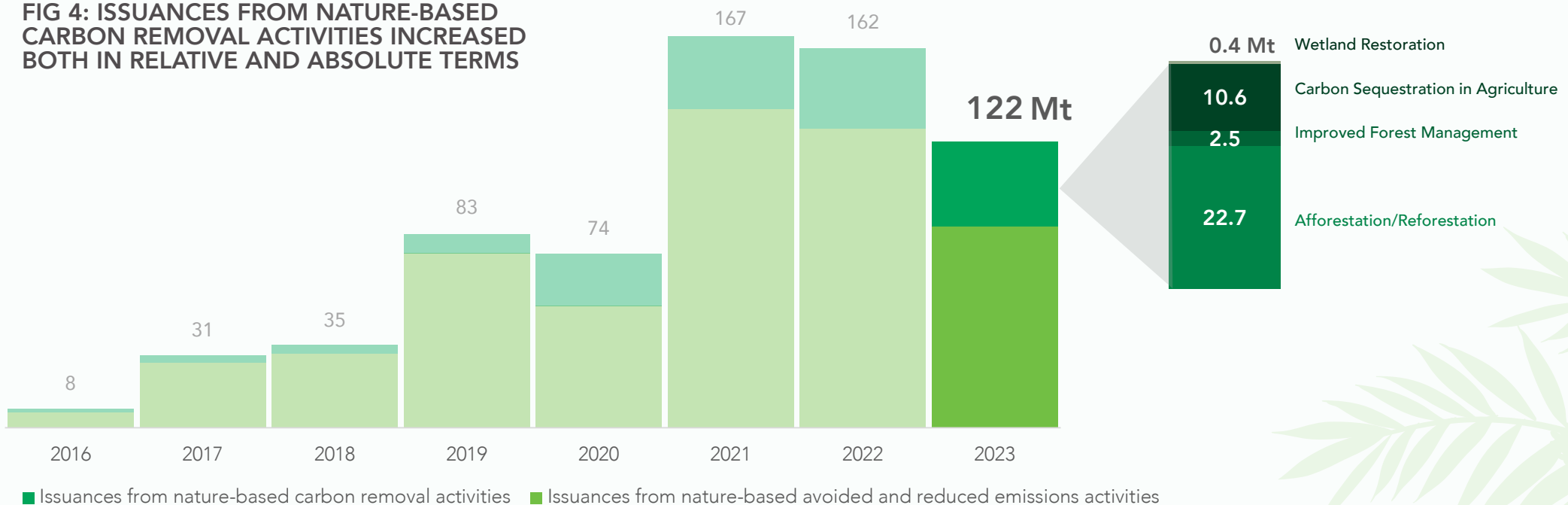
Issuance levels of nature-based removal credits have increased by 7 percent compared to last year, reaching 36 Mt in 2023.¹ For the first time, removal credits represented more than 10 percent of total annual issuances. This growth is noteworthy considering that issuances from avoided and reduced emissions credits from NBS declined by one-third in 2023.

This points towards buyers showing increased interest in NBS carbon removal credits in response to guidance by the Science Based Targets initiative that allows for the use of removal credits to compensate for residual emissions in net zero targets.

Another explanation for the relative strengthening of issuances from NBS removals may be the mounting criticism around the environmental integrity of certain REDD+ methodologies, leading some buyers to take a step back from seeking specific reduced emissions NBS projects to avoid reputational repercussions.

Finally, we are observing a rising share of issuances from nature-based projects that relate to newer vintages – over half of the 122 Mt issued in 2023 represented emission reductions and removals generated over the past four years. This suggests large volumes of older avoided and reduced emissions carbon credits have been transacted in earlier years, pushing this year's total issuances down.

FIG 4: ISSUANCES FROM NATURE-BASED CARBON REMOVAL ACTIVITIES INCREASED BOTH IN RELATIVE AND ABSOLUTE TERMS



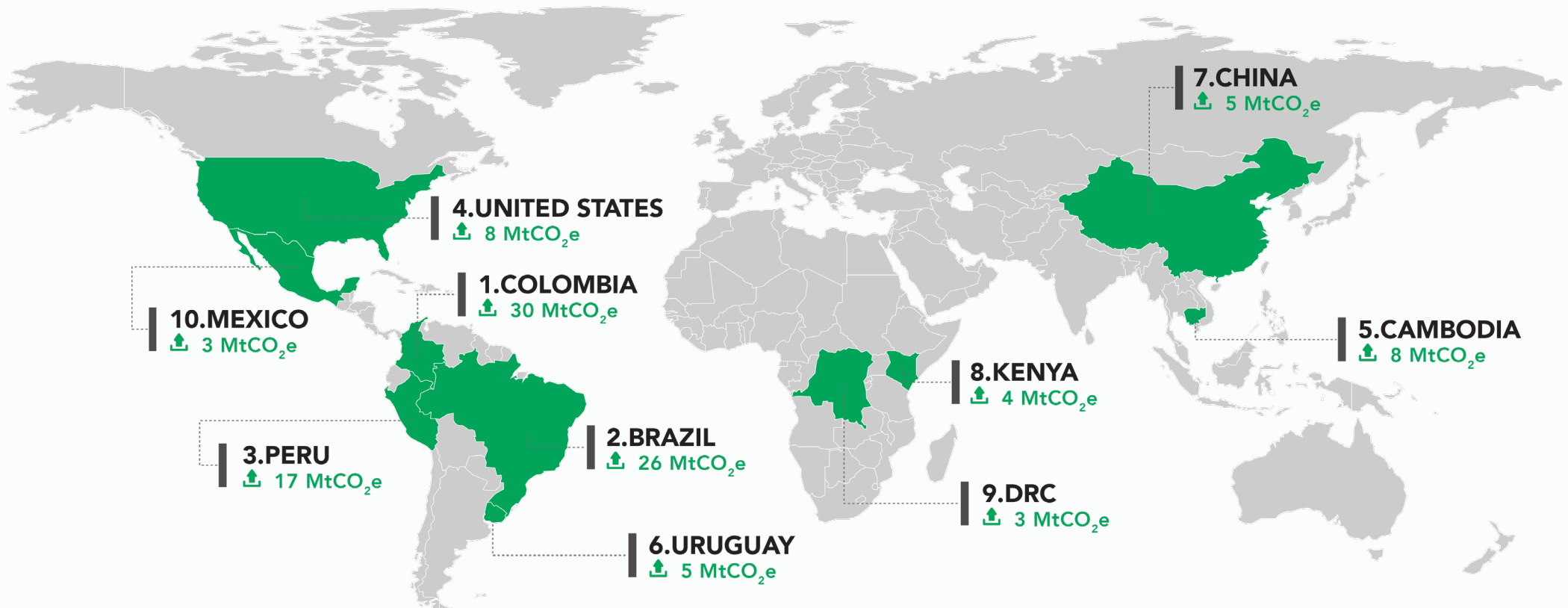
¹ Carbon removal projects include the following categories: (1) Afforestation/Reforestation, (2) Carbon sequestration in agriculture, (3) Improved Forest management, (4) Wetland restoration. Avoided and reduced emissions projects include the following categories: (1) Avoided deforestation, (2) Avoided conversion, and (3) Reduced emissions in agriculture.

A HANDFUL OF COUNTRIES DOMINATE NBS SUPPLY

The top ten countries hosting nature-based projects generated nearly 90 percent (109 Mt) of the total NBS supply recorded in 2023. The top three suppliers – Colombia, Brazil and Peru – represent nearly two-thirds of all nature-based credit issuances recorded over the past year. Colombia alone was responsible for 30 Mt of nature-based credits, in part explained by the increasing issuance of carbon credits certified in the country by the local Cercarbono standard.

The dominance of a handful of countries on the supply side of nature-based projects is driven by the large size of typical nature-based interventions – with annual issuances of these projects averaging nearly 0.5 Mt per project in 2023. The average annual issuance volume for non nature-based projects is considerably smaller at just over 0.1 Mt, translating into a more diversified landscape of supplier countries for those project categories.

FIG 5: TOP TEN COUNTRIES WERE RESPONSIBLE FOR NEARLY 90 PERCENT OF THE TOTAL SUPPLY OF NATURE-BASED CREDITS IN 2023





RENEWABLE ENERGY CARBON CREDITS ON THE DECLINE

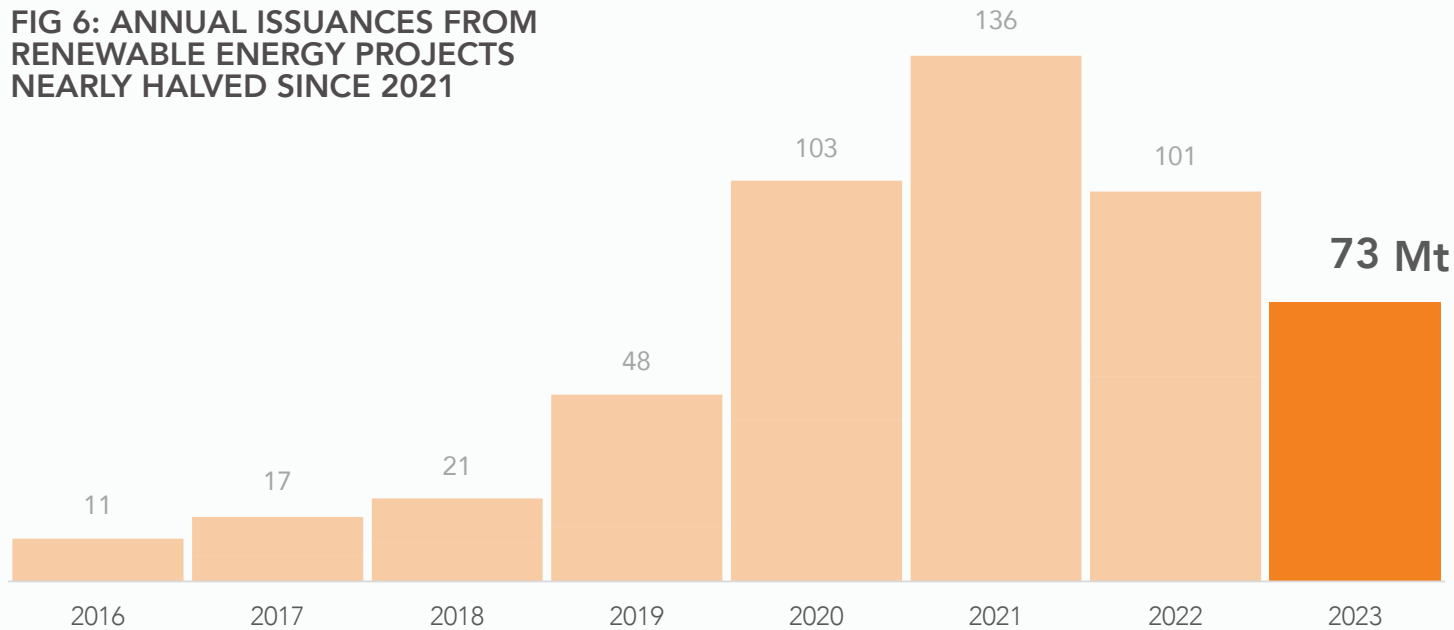
Interest in carbon credits from renewable energy has continued to decline. Annual issuances nearly halved since 2021, reaching just over 70 Mt in 2023 with large-scale wind power projects dominating supply. Three main factors explain the decline.

First, many large-scale renewable energy projects are approaching the end of their crediting periods and terminate. Second, buyers' interest in renewable energy carbon credits is declining due to concerns around additionality, particularly from projects hosted in more developed regions.

Average carbon prices for this project category reached new lows in 2023, decreasing the incentive for project developers to have carbon credits verified and issued.

Finally, both Verra and the Gold Standard have imposed geographical and technology-specific eligibility restrictions on new renewable energy projects.

FIG 6: ANNUAL ISSUANCES FROM RENEWABLE ENERGY PROJECTS NEARLY HALVED SINCE 2021



STOCKPILE OF NON-RETIRED CREDITS CONTINUES TO RISE

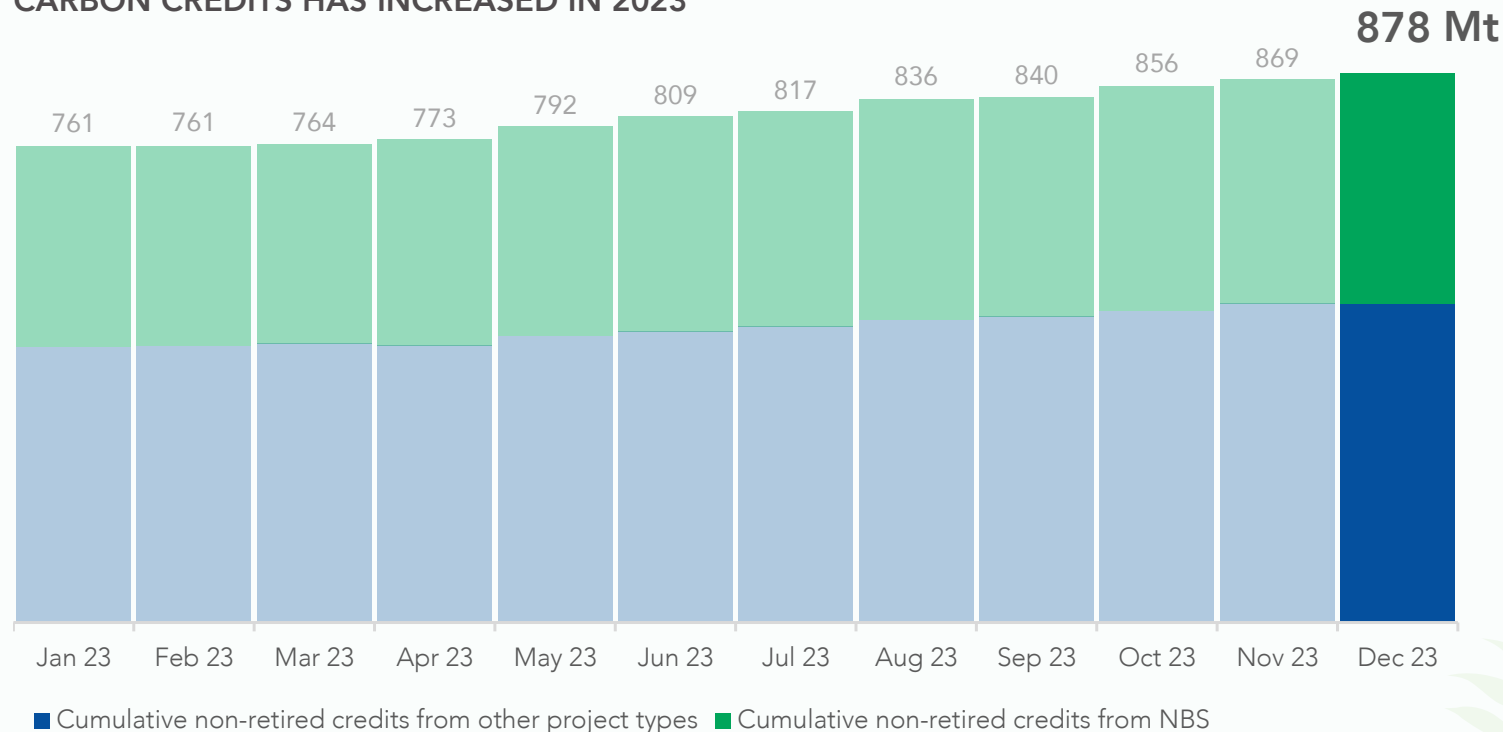
The stockpile of non-retired carbon credits has increased in 2023, reaching 878 Mt by year's end. Rising stockpiles are not a positive development in any commodity market, as they generally push prices down.

Around one-third of the newly added volume of non-retired carbon credits that contributed to this rising stockpile represented NBS carbon credits. The remainder was associated with other project types, dominated by carbon credits from cookstoves and renewable energy projects.

There is, however, an important consideration to this trend. A large share of these carbon credits relates to pre-2016 vintages that are increasingly less likely to be used by buyers. Our analysis shows that nearly 180 million non-retired carbon credits in the market relate to pre-2016 vintages, representing nearly one-fifth of the existing stockpile of credits.

The large stockpile of unused carbon credits is therefore – in part – a function of unwanted 'legacy' credits that will continue to show in future market data. This overshadows demand for and retirement levels of more valued vintages.

FIG 7: THE STOCKPILE OF NON-RETIRED CARBON CREDITS HAS INCREASED IN 2023



WHAT WILL 2024 BRING?

The failure of COP28 negotiations in Dubai to provide operational guidance on Article 6 has revealed contrasting visions of the role market mechanisms should take in meeting the goals of the Paris Agreement. This may cast a shadow over international carbon markets in 2024. The lack of agreement on Article 6.4, however, provides the VCM with an opportunity to provide methodological input into Article 6.2 transactions and help pilot more ambitious mitigation approaches.

Furthermore, the announced plans of the Science Based Targets initiative, the Voluntary Carbon Markets Integrity Initiative, the Integrity Council for the Voluntary Carbon Market (ICVCM) – among others – to collectively work towards enhancing the integrity and effectiveness of carbon markets has the potential to bring back trust and demand-side confidence in the market. The ambitions of leading carbon standards to work to adapt their methodologies to meet the ICVCM's Core Carbon Principles (CCP) is another sign of progress, signalling a degree of consolidation at a moment when the supply-side of the market is becoming increasingly more fragmented due to the proliferation of new carbon standards.

We recognise that it will take more than 2024 alone to get the market back on track, but as this 2023 VCM Review shows the market has shown resilience in what has been a challenging year. Concerted efforts are underway to re-establish the market's reputation, which will impact how buyers, investors, and project developers will position themselves in 2024. The demand-side will look for opportunities to scale investments in high-quality activities that deliver carbon credits that can contribute to corporate climate goals or can be used in compliance markets. The supply-side will adapt to these needs, adopting more robust carbon crediting approaches promoted through ICVCM's CCP labelling and the work of carbon credit rating agencies – even if it comes paired with lowered future issuance potentials.

As Climate Focus celebrates its 20th year of carbon market advisory this year, we look forward to our continued collaboration with partners and clients to promote a voluntary carbon market that can accelerate investments in climate solutions that would otherwise remain unfunded.



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We welcome you to explore more details about the VCM on our Dashboard, which we update monthly. The Dashboard currently tracks market activity from the following leading carbon standards: American Carbon Registry, ART, BioCarbon, Cercarbono, Climate Action Reserve, Climate Forward, Global Carbon Council, Gold Standard, Plan Vivo and Verra's VCS.

For tailor-made advisory, including strategic advisory on the VCM, future supply- and demand forecast, project due diligence support, and transaction support, please reach out to dashboard@climatefocus.com.

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