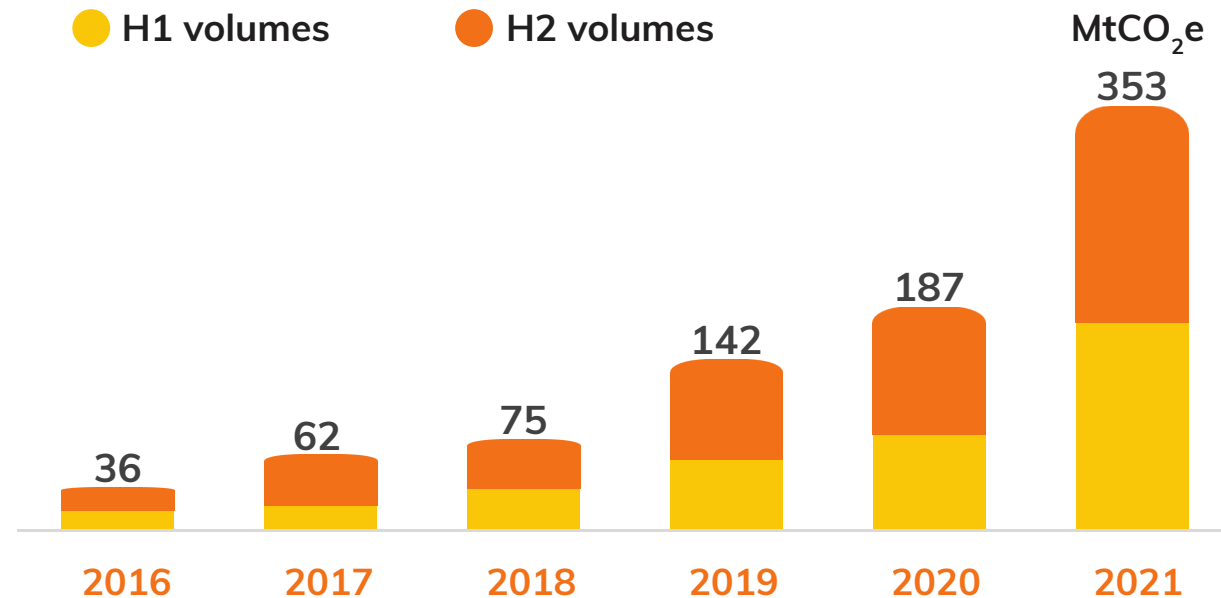


VOLUNTARY CARBON MARKET

Developments 2021



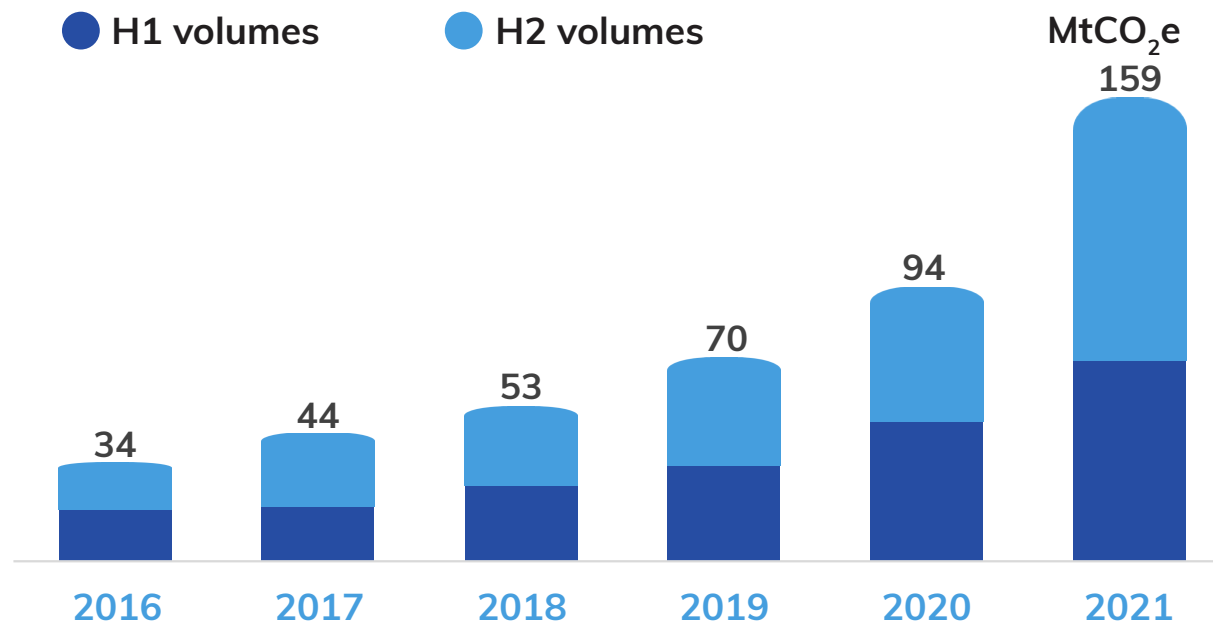
Issuance levels hit record highs



Issuance of carbon credits nearly doubled in 2021, compared to 2020^[1]. The 353 MtCO₂e of credits issued in 2021 is a record result, representing 30% of the total credit issuance since the market's inception. Cumulative issuance of VERs now stands at 1.17 GtCO₂e.

[1] This overview covers the following four major carbon standards: Verra's Verified Carbon Standard (VCS), the Gold Standard (GS), American Carbon Registry (ACR), and the Climate Action Reserve (CAR). Carbon credits certified under Verra represented nearly 84% of total issuance observed in 2021, followed by the Gold Standard at just over 12%. The ACR and CAR jointly contributed roughly 4%.

Credit retirements picking up pace

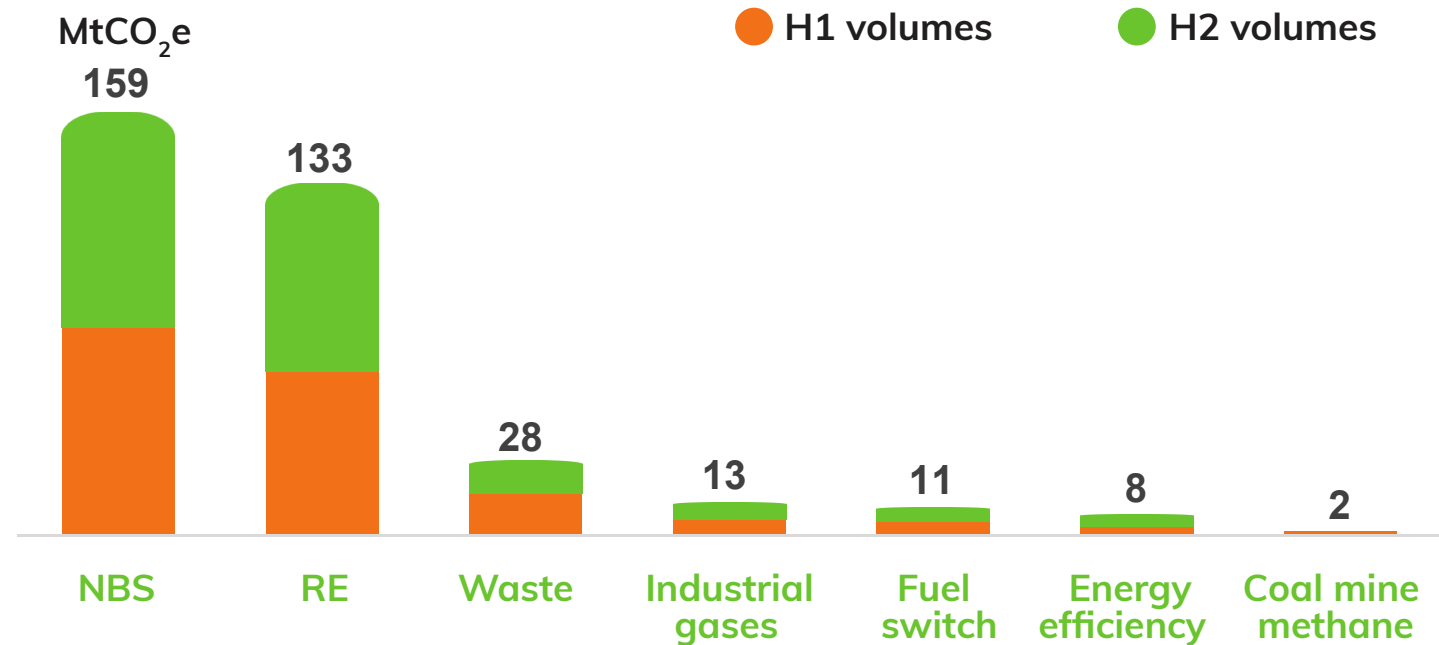


Retirements of carbon credits picked up pace, increasing by 70% relative to 2020 values. A total of 159 MtCO₂e was retired over 2021, representing **one-quarter of all retirements since the inception of the market**. New issuances exceeded retirements over 2021, however, with the total carbon credit surplus^[1] growing by 193 MtCO₂e in 2021.

[1] It should be noted that while retirement levels lag on issuance volumes, the resulting growing carbon credit surplus does not imply that demand for voluntary carbon credits is lagging. As increasingly more buyers are entering forward purchase agreements, a share of the newly issued volumes is likely to be already contracted and therefore may never trade on the secondary market.

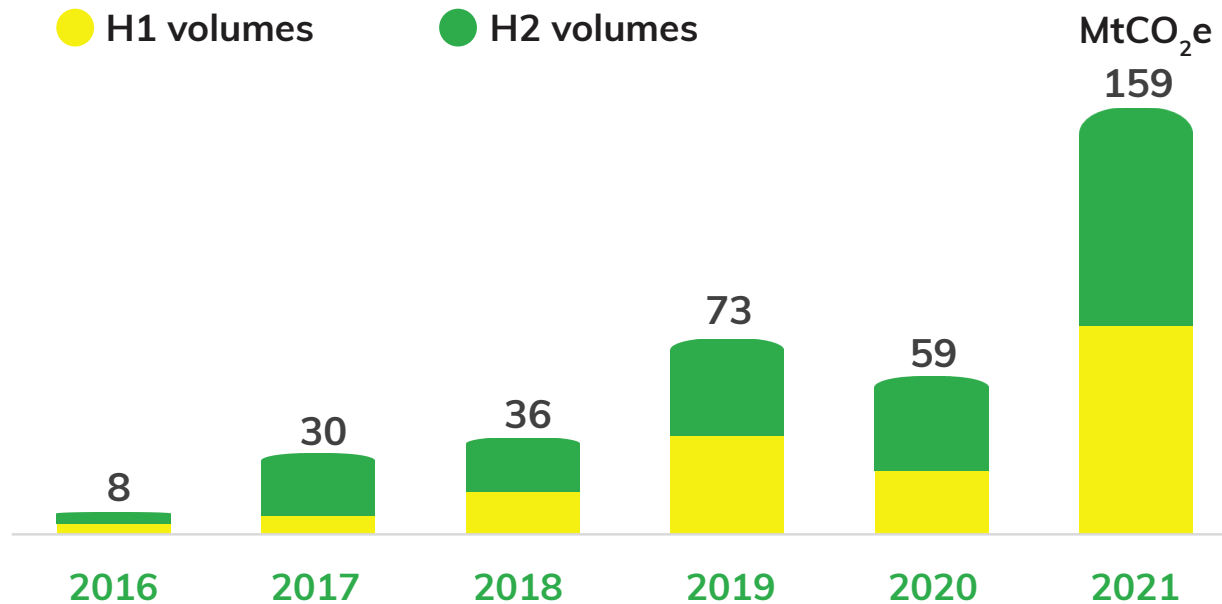


Nature-based solutions in the lead



Credit issuances in 2021 were predominantly represented by **Nature-based solutions (NBS) and Renewable Energy (RE) projects**, jointly representing over 80% of total VER issuances. The depicted values distinguish between H1 volumes and H2 volumes, showing that issuance activity has been spread out equally between the first half and the second half of the year.

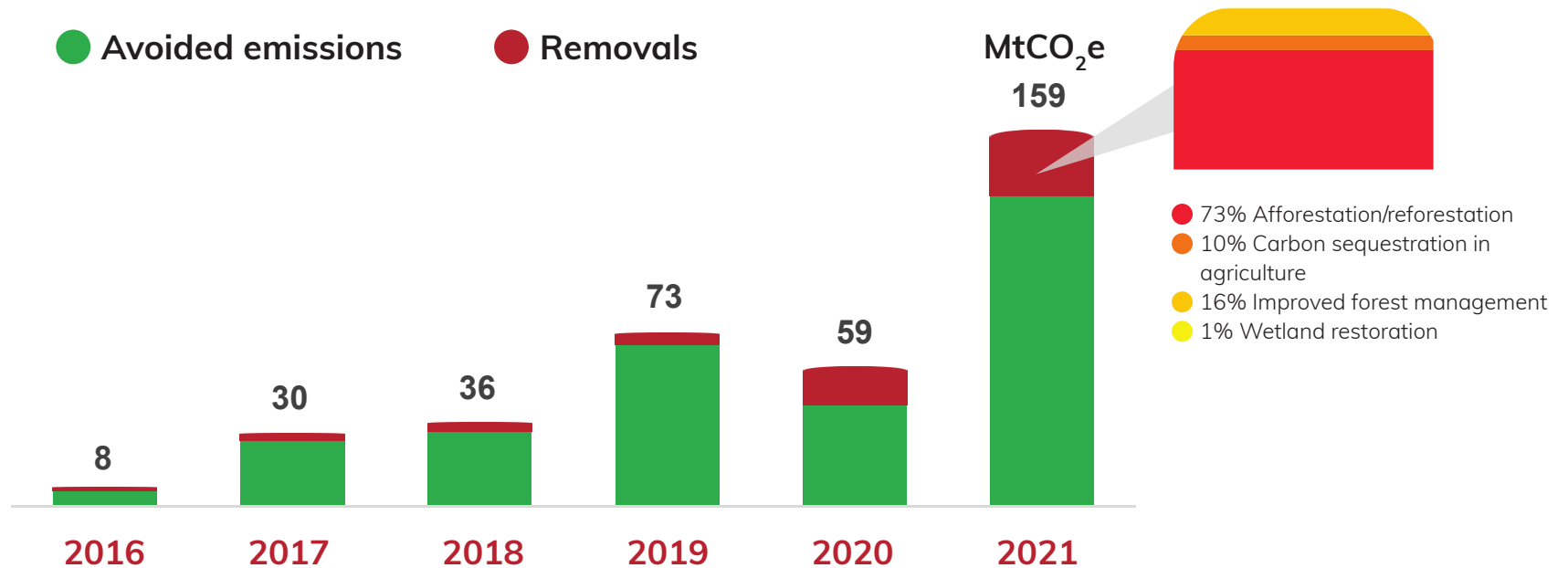
With issuance of NBS credits almost tripling



Issuance of carbon credits from Nature-based solution activities^[1] increased sharply in 2021, ending at 159 MtCO₂e. This is equivalent to nearly **40% of all NBS issuances since the market's inception**. It also represents a nearly **3-fold increase over the volume observed in 2020** (59 MtCO₂e).

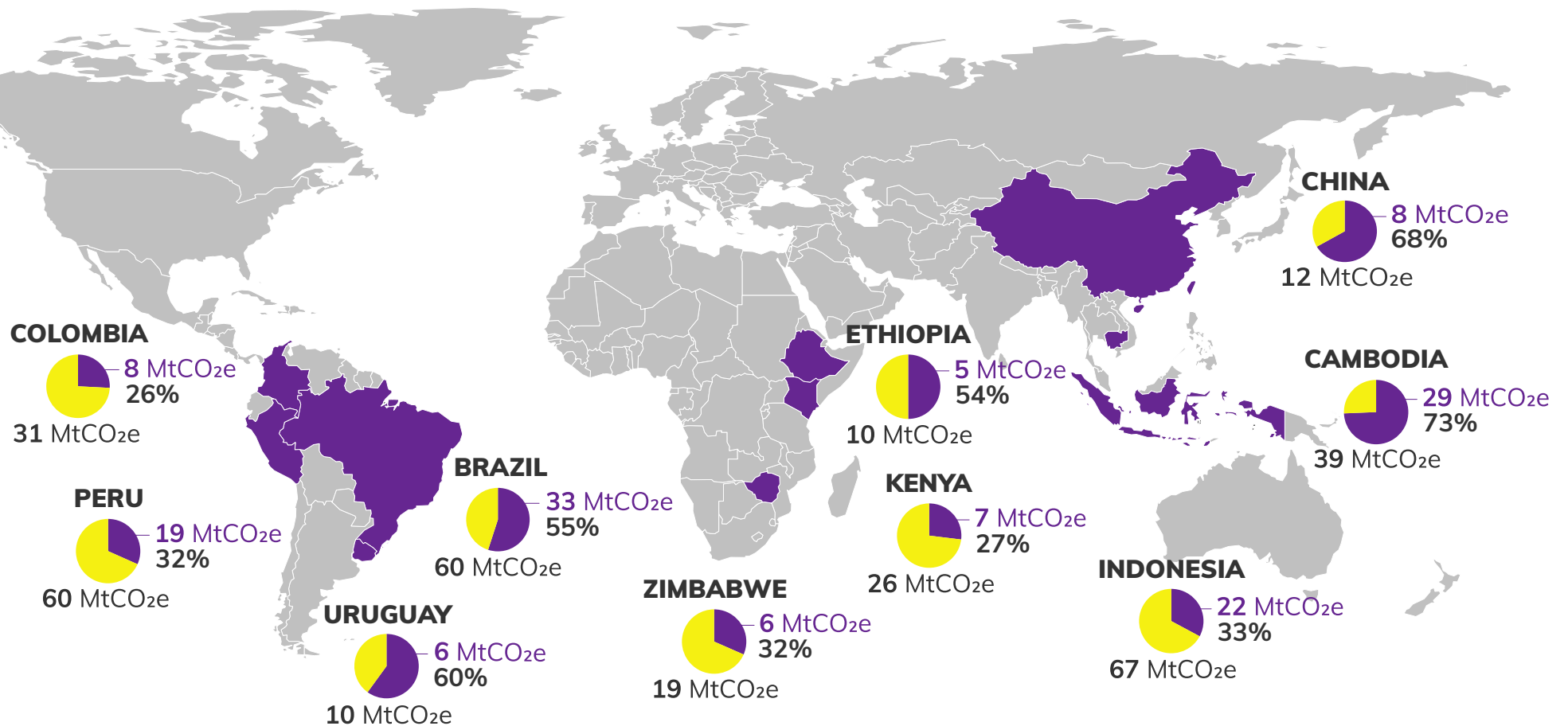
[1] Nature-based carbon projects include both avoided emissions activities (e.g. Avoided deforestation) and carbon removals (e.g. Afforestation/reforestation). See next slide for further details.

Carbon removal credits still in short supply

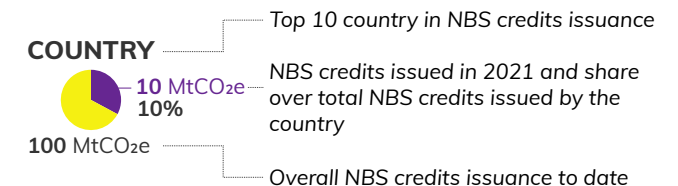


While issuance of removal credits has been on the rise, in 2021 still **only 17% of all NBS issuances came from carbon removal projects**. Most of these volumes are linked to **Afforestation/reforestation activities**, which with 20 MtCO₂e represent three-quarters of issuances from removal activities in 2021. The leading suppliers of these volumes are Uruguay (30%), China (29%), and the US (11%).

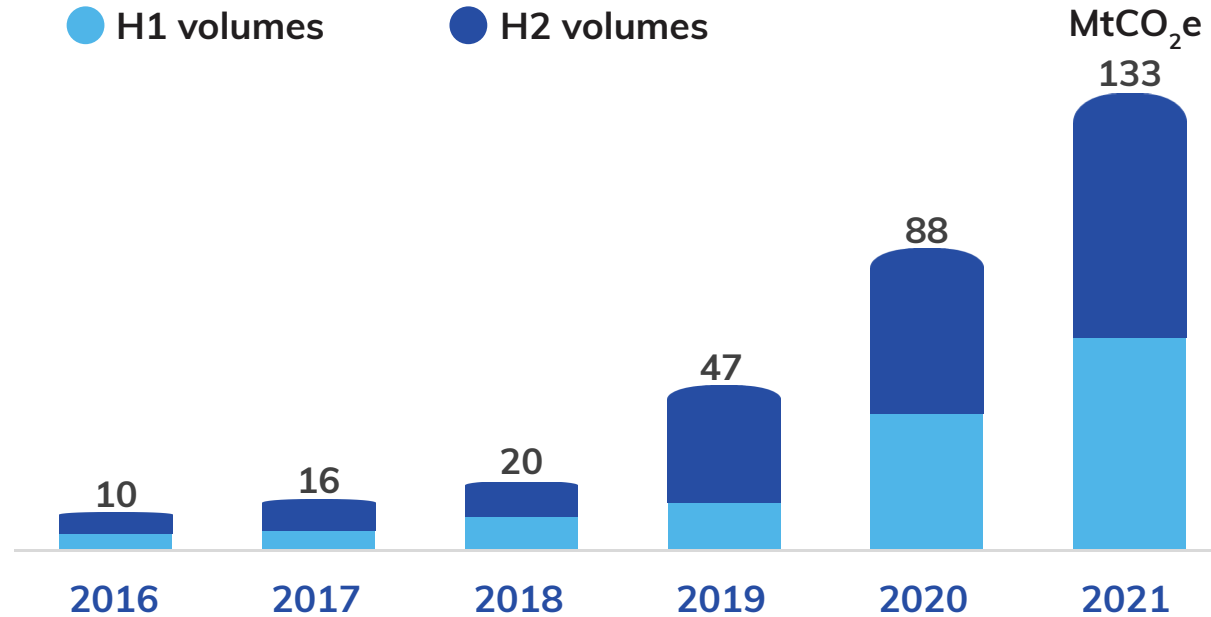
A handful of countries dominate NBS credit supply



Cumulatively, the top 10 countries hosting NBS credits have generated **90% of the total supply in 2021** (143 MtCO₂e). Three countries – **Brazil, Cambodia, and Indonesia** – are currently dominating the market, representing half of all NBS credits issued in 2021. Brazil leads this tally with a total issuance of 33 MtCO₂e, closely followed by Cambodia with 29 MtCO₂e and Indonesia with 22 MtCO₂e.



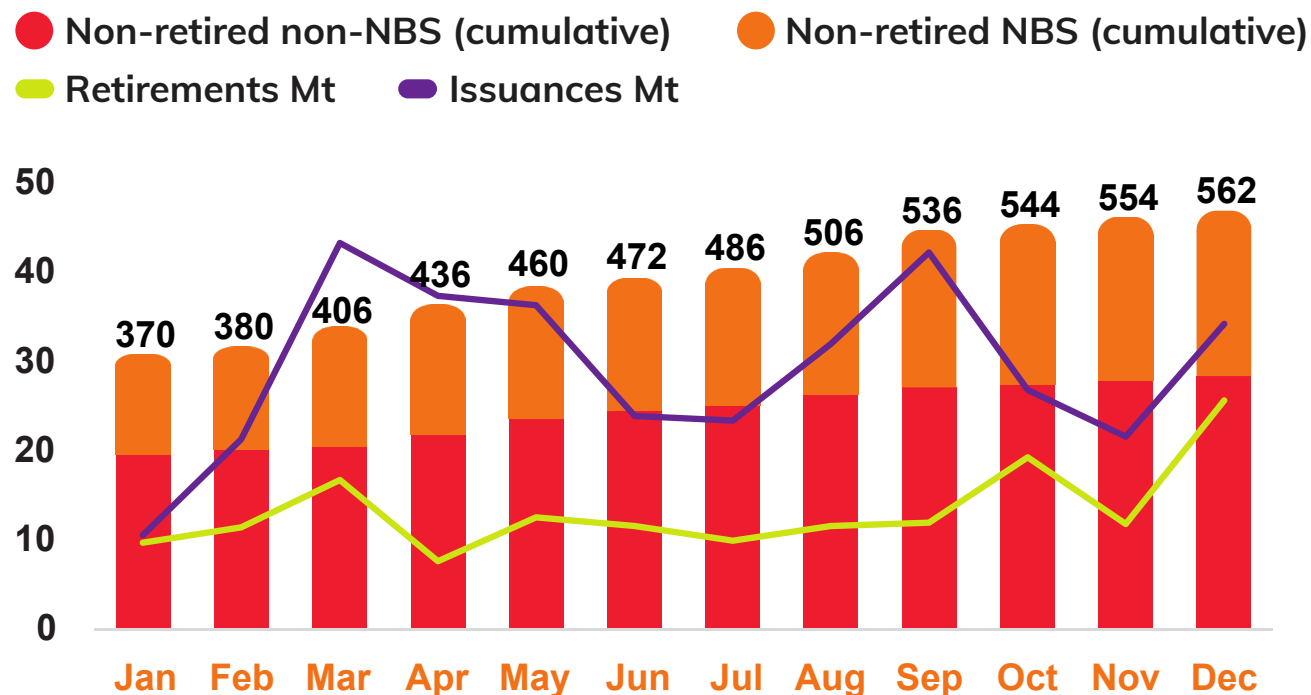
Renewables maintain an important role



While much of the attention has been going to the sharp rise in the supply of NBS credits, issuance levels for Renewable energy projects^[1] also witnessed significant growth in 2021, reaching 133 MtCO₂e. This represents a 50% increase over 2020 VER issuance from this category, and one-third of all issuances in this space since the market's inception. Large-scale Hydropower activities represent the bulk of this issuance (40%), followed by large-scale Wind power projects (36%).

[1] Renewable energy projects include the following categories: (1) Wind, (2) Solar, (3) Hydro, (4) Mixed, both large- and small-scale.

Retirements track issuance volumes, albeit at lower volumes



Non-retired VER volumes increased steadily throughout 2021, rising from 370 MtCO₂e in January to 562 MtCO₂e by the end of 2021. Retirement levels picked up in the last quarter, likely as companies took VERs off the market to meet end-of-year compensation targets. Issuance levels show a less clear trend, but have exceeded retirement volumes throughout the year. This implies increased **stockholding in anticipation of future demand**.

VOLUNTARY CARBON MARKET

Developments 2021

For more insights about the development of the Voluntary Carbon Market please visit our [Dashboard](#), which we update on a monthly basis.

For tailor-made advisory, please reach out to dashboard@climatefocus.com.