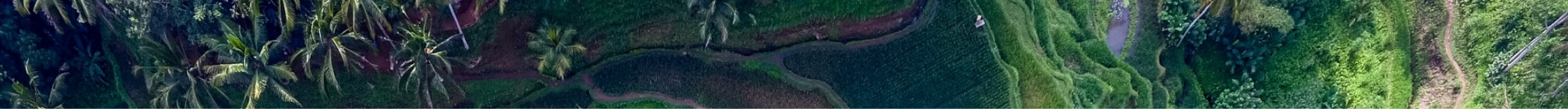

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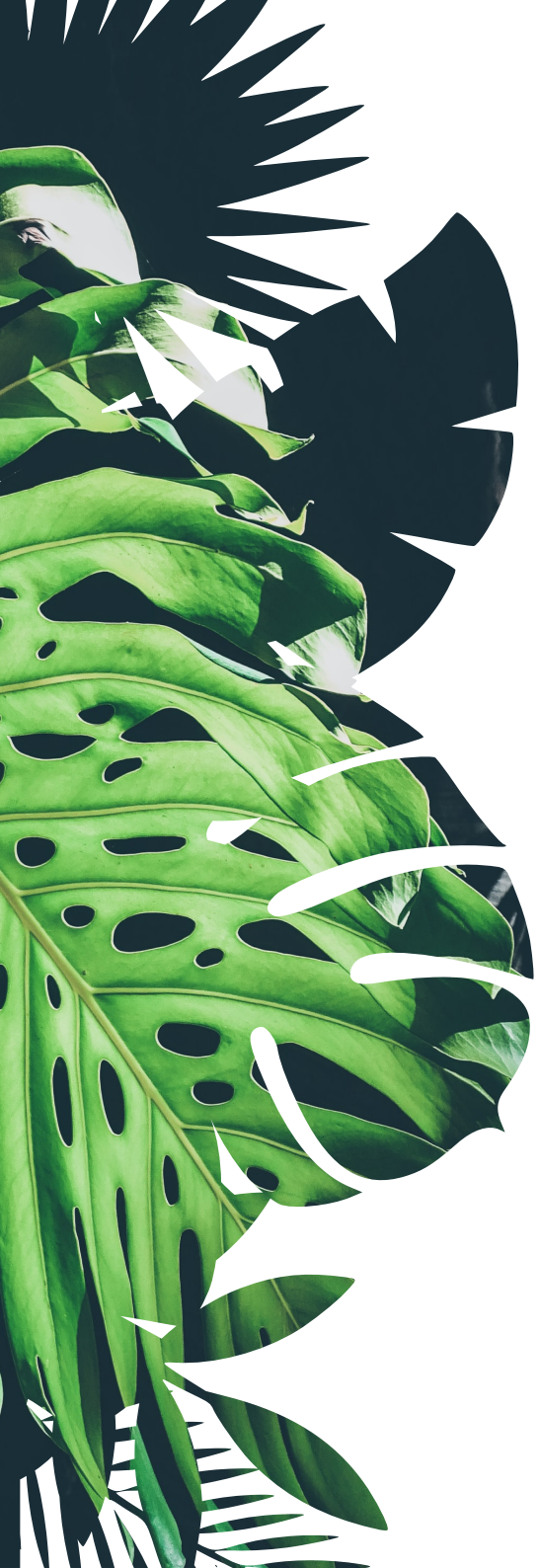
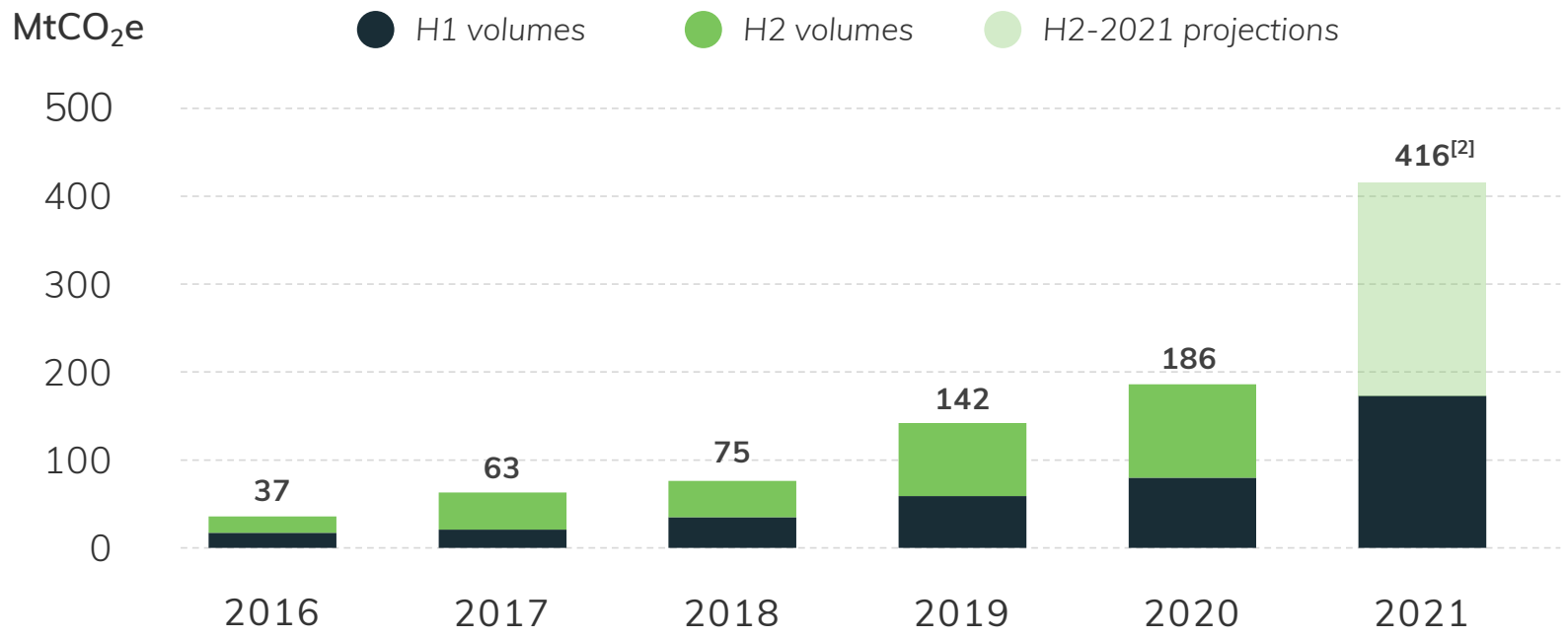


Issuance levels hit record highs



Issuance of carbon credits more than doubled in the first half of 2021, when compared to the same timeframe in 2020[1]. Extrapolating historical second half of the year performance to 2021, total issuance could reach over 400 Mt over 2021 alone, a record[2]. Such new volume entering the market would represent **a nearly 50% rise in total issuance since the market's inception**[3], which in cumulative terms reached 816 Mt by the end of 2020.

[1] *Carbon credits certified under Verra represented 83% of total issuance observed in the first half of 2021, followed by the Gold Standard at 14%. The ACR and CAR jointly contributed 3%.*

[2] *The historical (from 2016 onwards) average ratio of aggregate H1 issuance volumes vs. H2 aggregate issuance volumes has been 1 : 1.4. Provided aggregate issuance of 172 Mt in H1 2021 alone, our issuance forecast for H2 is 243 Mt, totalling 416 Mt over the entire 2021.*

[3] *Relating to the covered voluntary carbon standards.*

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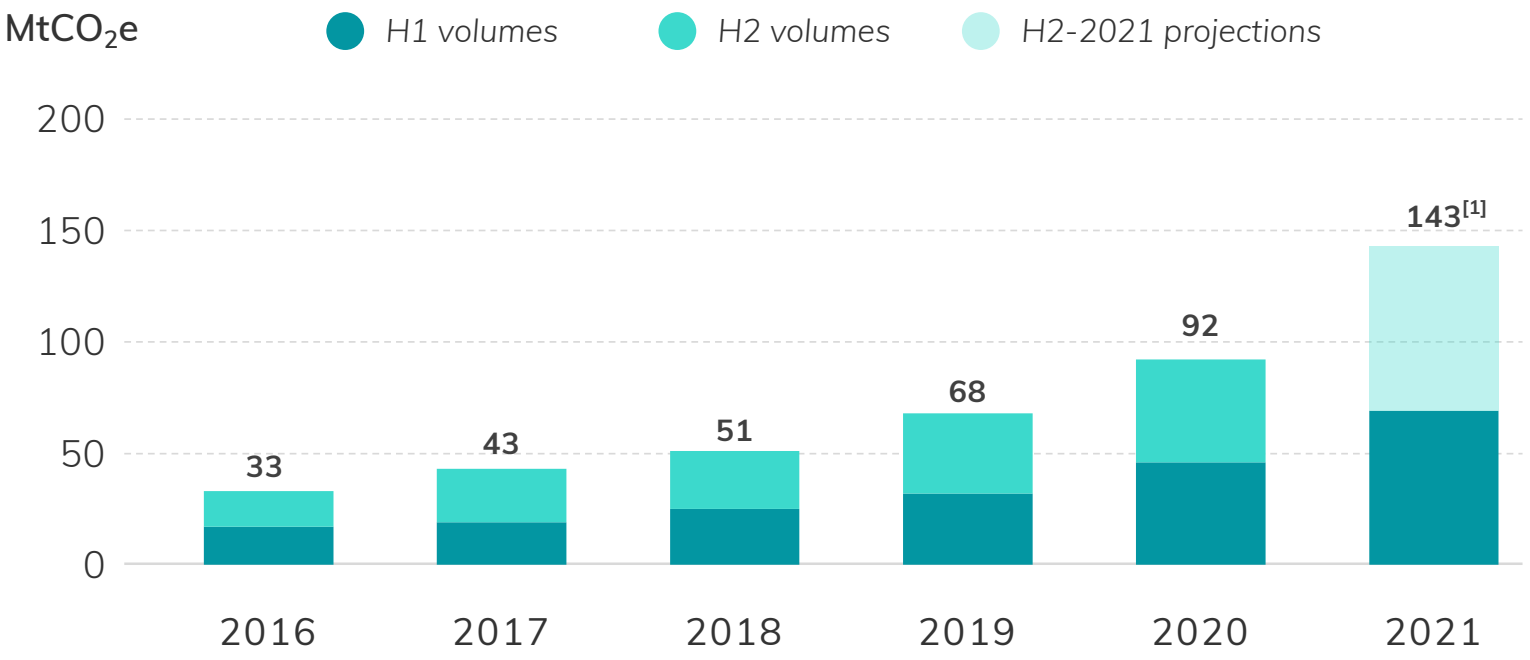
Credit retirements picking up pace



Retirements of carbon credits also picked up pace, with a total of 69 Mt being retired in the first half of 2021 (with an expected total volume of retirements of 143 Mt over the entire 2021, based on historical trends[1]). The H1 retirements alone represent **over 12% of all retirements since the inception of the market**[2]. On aggregate, however, new issuances exceeded retirements over the first half of the year, with the total carbon credit surplus[3] growing by 104 Mt.

[1] *The historical (from 2016 onwards) average ratio of aggregate H1 retirement volumes vs. H2 aggregate retirement volumes has been 1 : 1.07. Provided aggregate retirement of 69 Mt in H1 2021 alone, our issuance forecast for H2 is 74 Mt, totalling 143 Mt over the entire 2021.*

[2] *Relating to the covered voluntary carbon standards.*

[3] *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 falling. 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.*

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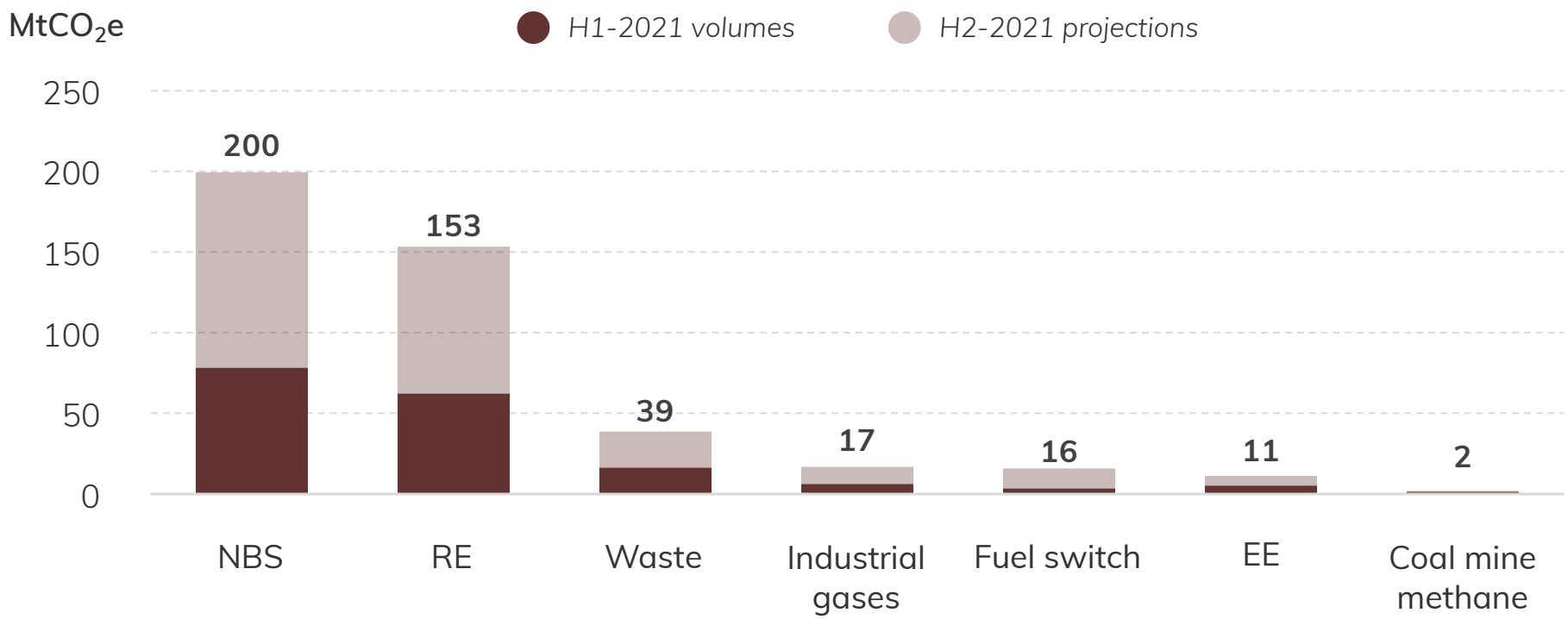
Nature-based solutions projects in the lead



Credit issuances in the first half of 2021 were dominated by **Nature-based solutions** (NBS) and **Renewable Energy** (RE) projects, **representing over 80% of total forecasted issuances combined**. The figure shows the observed issuances during the first half of 2021, and a forecast based on historical trends for the second half of the year.

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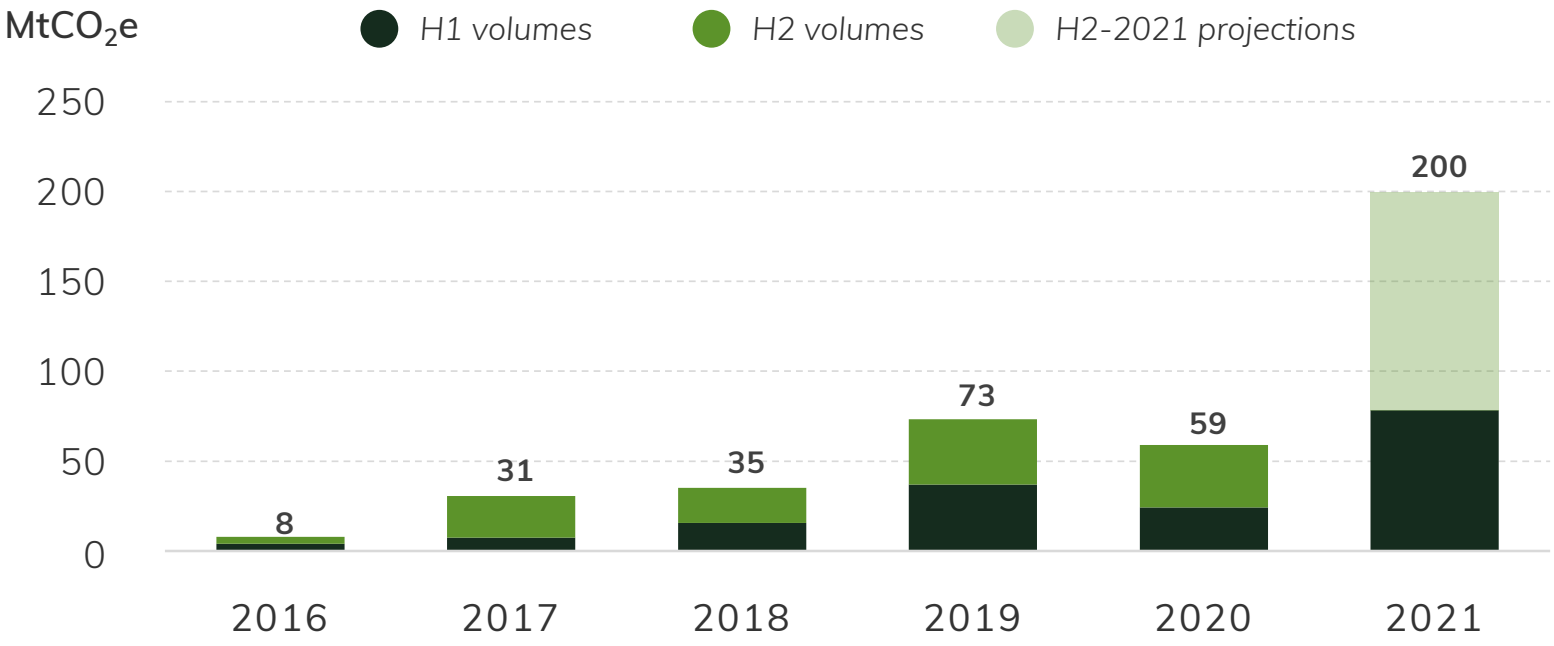
With issuance of NBS credits tripling



Issuance of carbon credits from NBS projects[1] increased sharply in the first half of 2021, reaching 78 Mt. This is equivalent to **more than triple** the volume observed for the same period last year, and **exceeds the total 2020 issuance** recorded for NBS projects (59 Mt). Assuming historical trends[2], total issuance could reach around 200 Mt over 2021 alone, representing **half** of all voluntary carbon credits forecasted over the full 2021.[3]

[1] *Nature-based solutions carbon projects include the following categories: (1) Avoided emissions, and (2) Removals.*

[2] *The historical (from 2016 onwards) average ratio of aggregate H1 issuance volumes from nature-based solutions projects vs. H2 aggregate issuance volumes has been 1 : 1.55. Provided aggregate issuance of 78 Mt in H1 2021 alone, our issuance forecast for H2 is 121 Mt, totalling 200 Mt over the entire 2021.*

[3] *As per the first graphic displayed on this report.*

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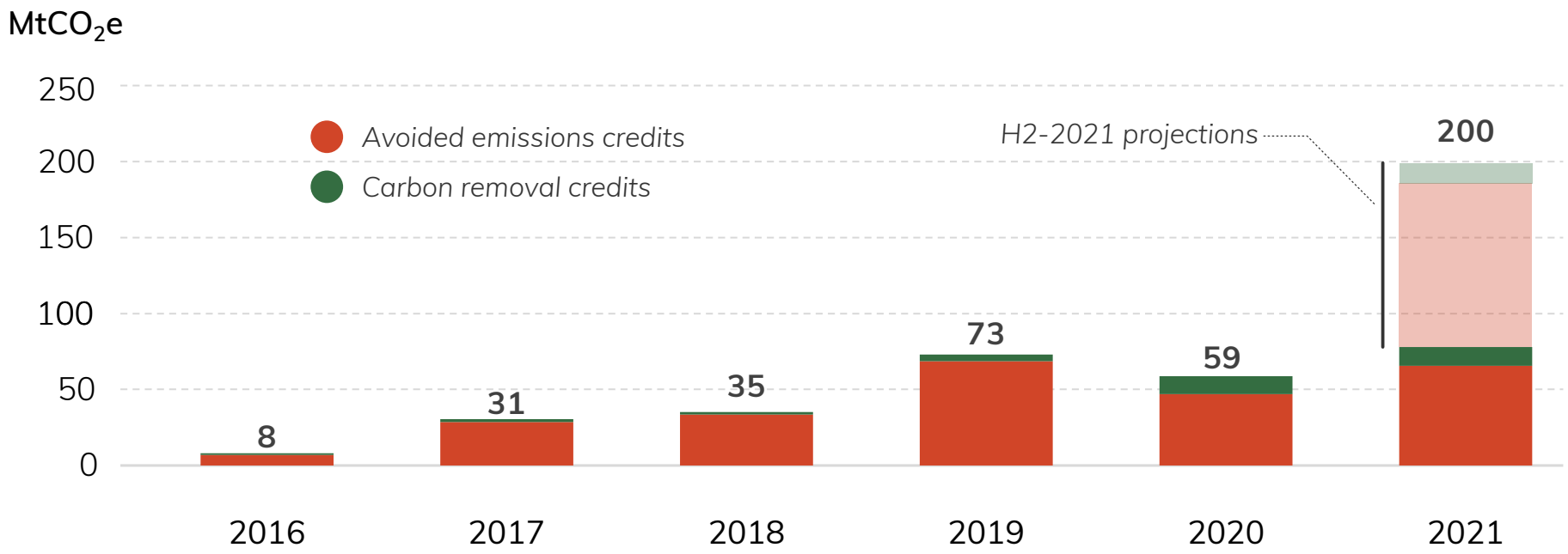
Carbon removal credits still in short supply



While issuance of carbon removal credits[1] has been on the rise recently, during H1-2021, **more than 80% of all NBS issuances came from avoided deforestation projects** (a total of 55 registered projects issuing credits in H1-2021 across the four main standards). Extrapolating historical trends[2], total issuance volume from nature-based carbon removals is expected to reach 25 Mt, which would represent **a twofold increase from 2020 volumes**.

[1] *Carbon removal projects include the following categories: (1) Afforestation/Reforestation Forests, (2) Afforestation/Reforestation Mangroves, (3) Agriculture – Carbon sequestration, (4) Improved Forest Management. Avoided emissions projects include the following categories: (1) Avoided deforestation and (2) avoided conversion.*

[2] *Removals: The historical (from 2016 onwards) average ratio of aggregate H1 issuance volumes from removal projects vs. H2 aggregate issuance volumes has been 1 : 1.08. Provided aggregate issuance of 12 Mt in H1 2021 alone, our issuance forecast for H2 is 14 Mt, totalling 26 Mt over the entire 2021.*

Avoided emissions: The historical (from 2016 onwards) average ratio of aggregate H1 issuance volumes from avoided emissions projects vs. H2 aggregate issuance volumes has been 1 : 1.64. Provided aggregate issuance of 66 Mt in H1 2021 alone, our issuance forecast for H2 is 108 Mt, totalling 174 Mt over the entire 2021.

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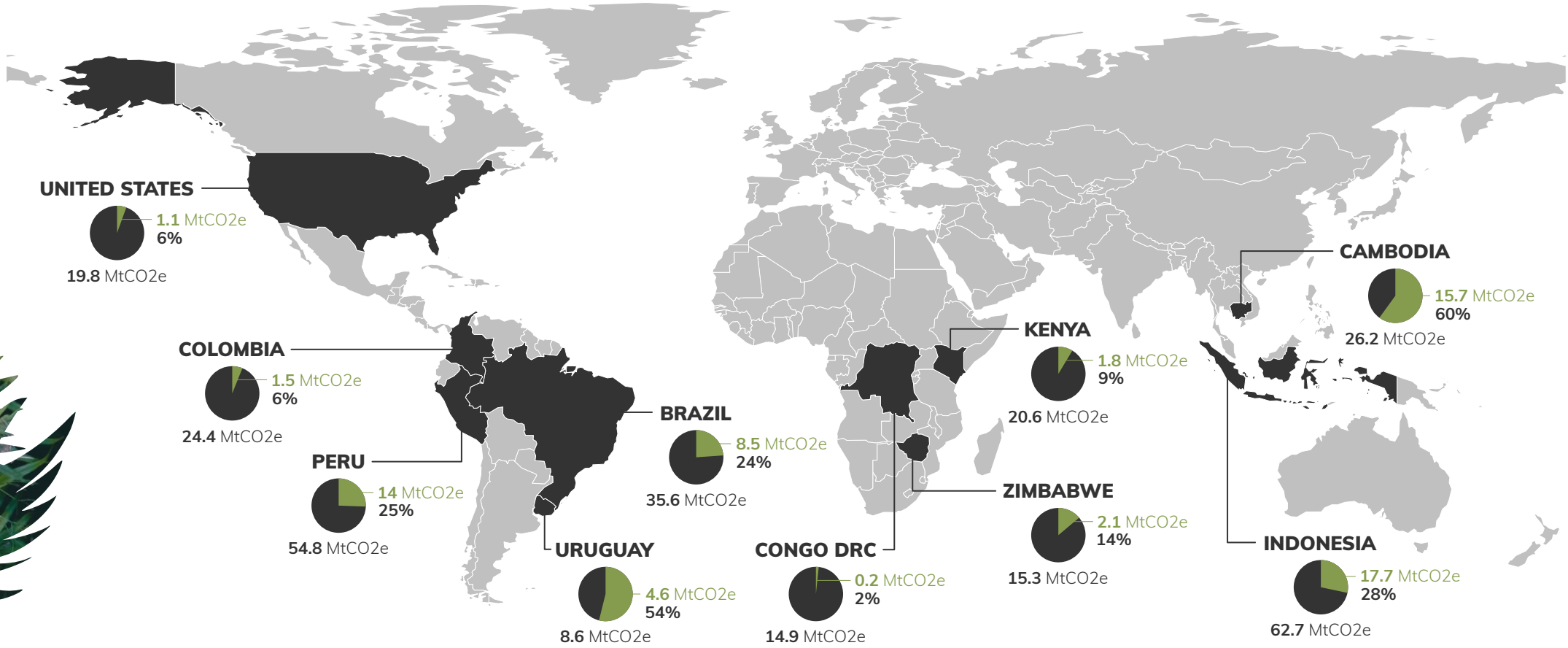
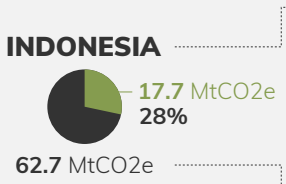
A handful of countries dominate NBS credit supply



Cumulatively, the top ten countries issuing nature-based carbon credits since market inception), have generated 86% of the total NBS credit supply in the first half of 2021 (78 Mt).

The top three countries in 2021 (so far) – **Indonesia, Cambodia, and Peru** – are currently dominating the market, together representing 61% of the total NBS credits issued in this first half of the year.



Top 10 country in NBS credits issuance

NBS credits issued during first half of 2021 and share over total NBS credits issued by the country

Overall NBS credits issuance to date

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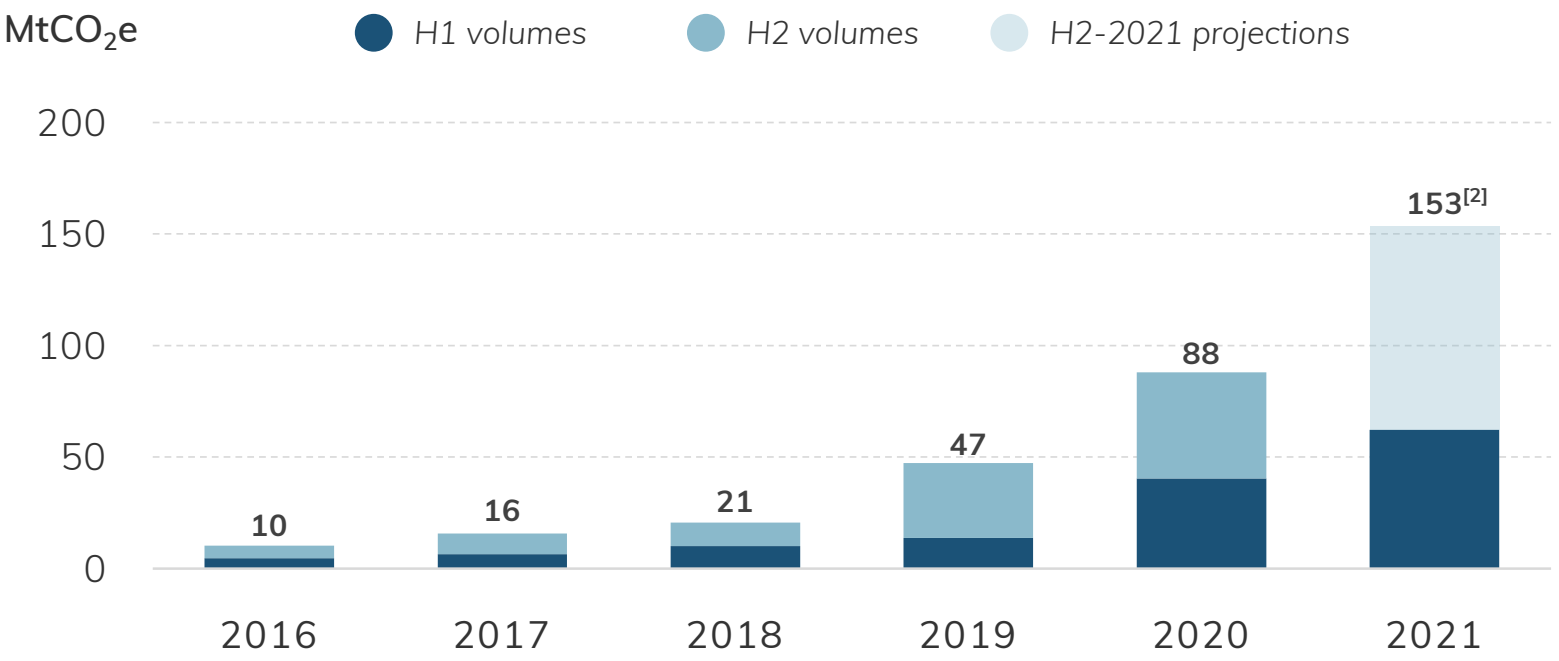
Renewables maintain important role in credit supply



While much of the attention has been going to the sharp rise in the supply of nature-based carbon credits, issuance levels for renewable energy projects[1] also witnessed significant growth in the first half of 2021, reaching 62 Mt. This represents more than a **50% increase over the same period last year**. Extrapolating historical data[2], total issuance for 2021 could reach over 150 Mt, representing **35% of all issuance recorded from renewable energy projects** since the inception of the market.

[1] *Renewable energy projects include the following categories: (1) Wind, (2) Solar, (3) Hydro, (4) Mixed.*

[2] *The historical (from 2016 onwards) average ratio of aggregate H1 issuance volumes from renewable energy projects vs. H2 aggregate issuance volumes has been 1 : 1.46. Provided aggregate issuance of 62 Mt in H1 2021 alone, our issuance forecast for H2 is 91 Mt, totalling 153 Mt over the entire 2021.*

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For more insights on the development of the VCM, please visit our Dashboard **(link)**, or reach out to **dashboard@climatefocus.com** for tailor-made solutions for your business.

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