

LEADING THE WAY IN THE VOLUNTARY CARBON MARKET

WHITE PAPER



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[RESPIRA-INTERNATIONAL.COM](https://respira-international.com)

SUMMARY

1

The time is now – net zero by 2050 requires private capital at scale.

2

The voluntary carbon market (VCM) helps deliver that scale with carbon credits generated from tangible projects that remove, reduce or avoid emissions.

3

International corporations now recognise that they can incorporate verifiable voluntary carbon credits into their climate strategies.

4

In response, Respira has developed a quality carbon credit offering in the VCM, securing long-term primarily nature-based carbon projects with an innovative offtake and profit share model.

5

Respira's model enables buyers to achieve multiple goals and to deliver genuine measurable ESG impacts.

UNITING OUR SELF-INTEREST AND BETTER NATURE:

To scientists, governments, and increasingly to businesses of all types, it is now clear that our window to avoid the most catastrophic effects of climate change is slim, making it imperative the world curb green house gas (GHG) emissions as fast as possible. A growing consensus argues that 'net zero' emissions must be reached by 2050, with substantial actions taken to mitigate existing unavoidable emissions before 2030. However, the pledged GHG mitigations resulting from each country's Nationally Determined Contributions mean the world is still on track for 2.1°C to 2.4°C of global warming this century.¹ Much more action is therefore essential but achieving net zero needs finance – a lot of it.



¹<https://climateactiontracker.org/press/Glasgows-one-degree-2030-credibility-gap-net-zeros-lip-service-to-climate-action/>

THE GAP AND THE GAINS

The scale of investment required is substantial: up to \$100 trillion between now and 2050. However, the shortfall is large: with an estimated funding deficit of between 60% and 85%.² The voluntary carbon credit market (VCM) provides a critical tool to help fill the gap. It can unlock private capital at a huge scale and enables non-state actors such as corporations to step up to the challenge.

Within the VCM, high-quality nature-based climate solutions (NBS) in particular can deliver vital benefits:

- I verifiable impacts on emissions
- II co-benefits such as biodiversity, community and sustainable livelihoods
- III a near-term route for businesses to mitigate unavoidable carbon footprint
- IIII financial and ESG returns that further incentivise the capital flows essential for global decarbonisation and sustainable development



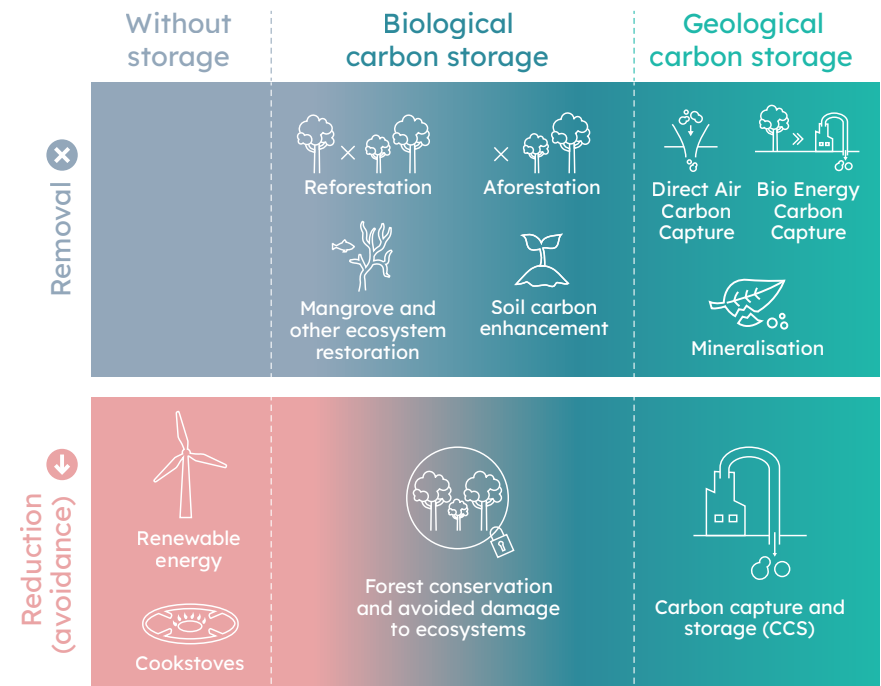
² Carney & Topping, Guest view: Getting finance in shape for COP26 (2021)



TWO MARKETS, ONE GOAL

1. Government-regulated compliance carbon markets (CCMs) issue permits allowing companies to emit up to agreed levels. Above that, they must buy more permits. Over time, total emissions are reduced by imposing a gradually declining 'cap'.
2. The VCM process is different. Here, tangible projects remove, reduce, or avoid emissions, generating carbon credits. Each represents one metric tonne of removed, reduced or avoided CO₂e. These independently verified credits are purchased by companies (and individuals) who voluntarily choose to reduce their footprint. There are two types of carbon credits: removal and reduction/avoidance (Fig. 1).

Figure 1: What is a carbon credit

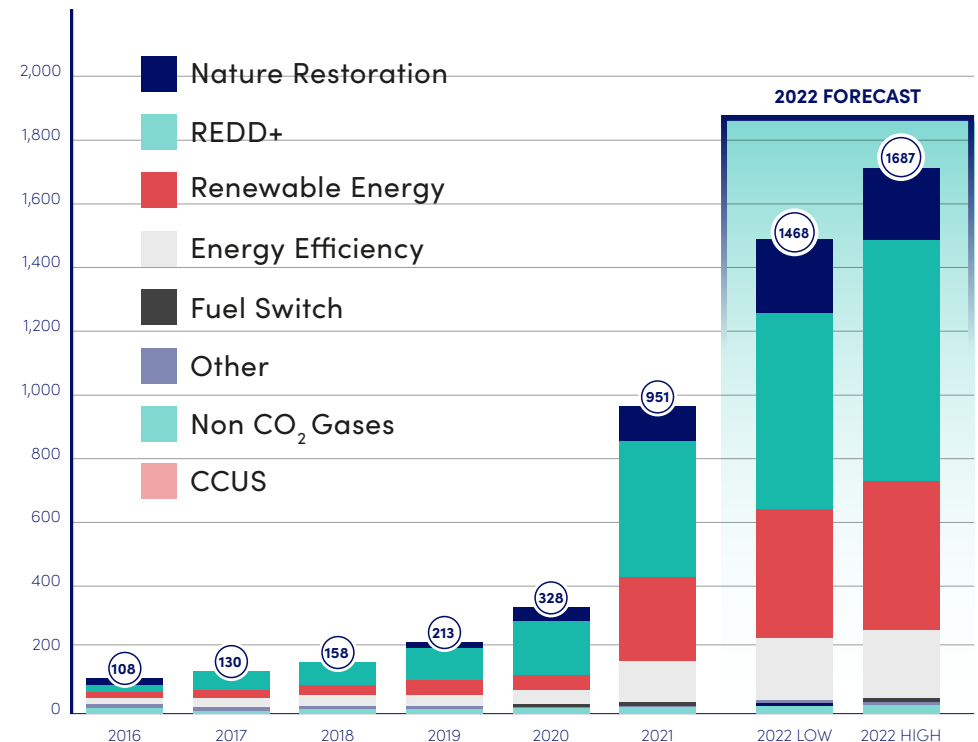


MIGHTY OAKS FROM LITTLE ACORNS

Whilst the CCM has an annual trading turnover of \$260 billion the VCM's is just over \$1 billion.³ However, the VCM's size has increased steadily over recent years. In 2021, its value grew by 190% and in 2022 it is forecast to increase a further 50 – 80% (Fig. 2). Since 2015 the VCM's CAGR has been around 30%, mainly driven by increasingly ambitious commitments of companies to move towards net zero.⁴

Figure 2: Primary VCM size (\$m) 2016–2022 forecast (Trove)

<https://trove-research.com/research-and-insight/voluntary-carbon-market-2021-year-in-review-and-2022-outlook/>



³ Voluntary Carbon Markets Top \$1 Billion in 2021 with Newly Reported Trades, a Special Ecosystem Marketplace COP26 Bulletin

⁴ Shell & BCG, An outlook on the voluntary carbon market (2021)

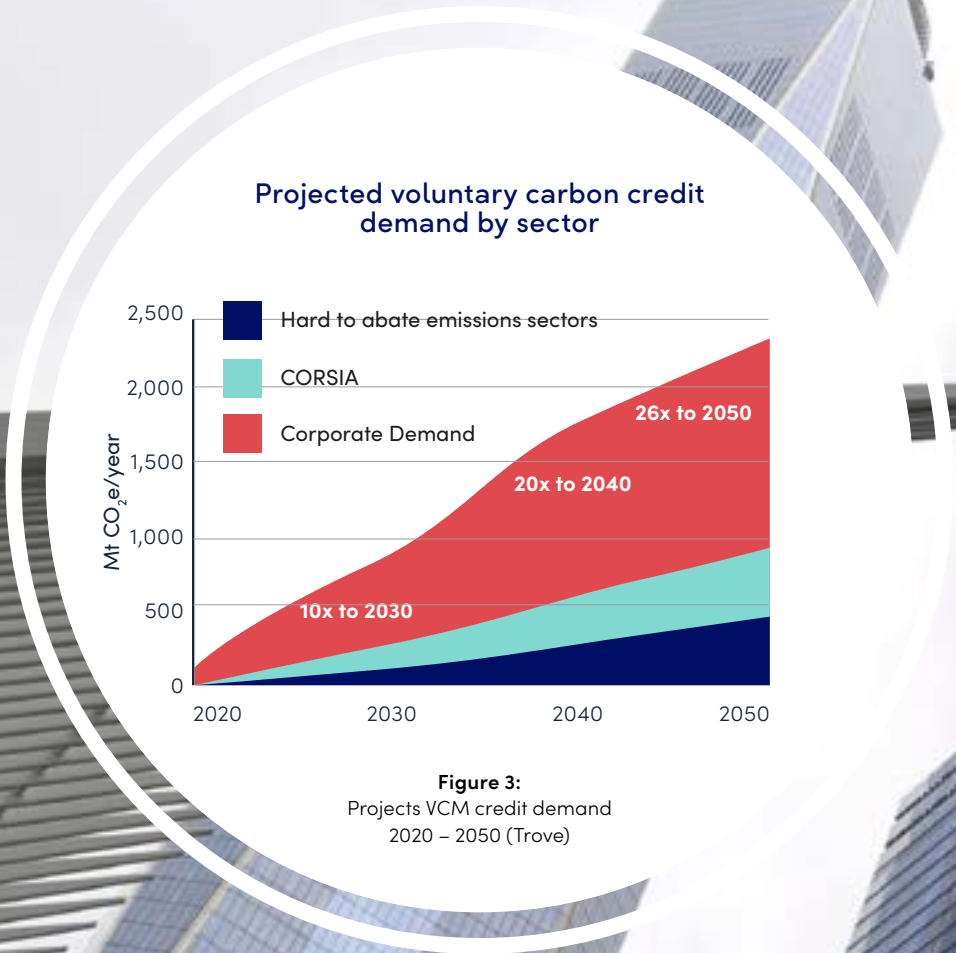
THE CORPORATE NEED

A total of 60% of Fortune 500 companies have now set climate targets⁵ and many of the world's largest companies - including Amazon, BP, and American Airlines - have pledged to reach net zero by mid-century.⁶ Microsoft has committed to become carbon negative by 2030 and to "remove" all carbon it has ever emitted by 2050.⁷ These commitments to decarbonise point to substantial increases in demand for voluntary carbon credits: 5 to 10 times by 2030, 8 to 20 times by 2040, and 10 to 30 times by 2050.⁸

Developments on Article 6 at COP26 in Glasgow give rise to the possibility of future convergence between voluntary and compliance markets beyond the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

- ➔ Majority of net zero pledges and emissions reduction targets fall outside compliance markets
- ➔ Corporations will need to look to the voluntary market to meet their growing needs
- ➔ Article 6 gives rise to the potential for significant convergence between voluntary and compliance markets in the future

⁵https://www.fint.awsassets.panda.org/downloads/power_forward_4_0.pdf
⁶<https://www.greenbiz.com/article/giving-carbon-credit-lessons-unchecked-financial-markets>
⁷<https://www.environmental-finance.com/content/analysis/strong-growth-predicted-for-voluntary-carbon-market.html>
⁸<https://trove-research.com/wp-content/uploads/2021/06/Trove-Research-Carbon-Credit-Demand-Supply-and-Prices-1-June-2021.pdf>



CARBON CREDIT PRICING

Voluntary carbon credit inventory is dropping fast

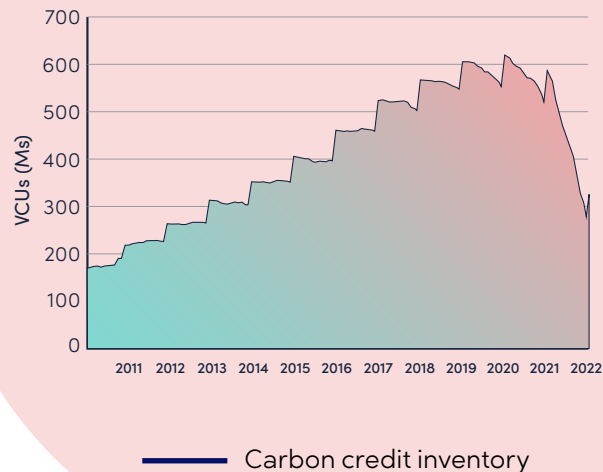


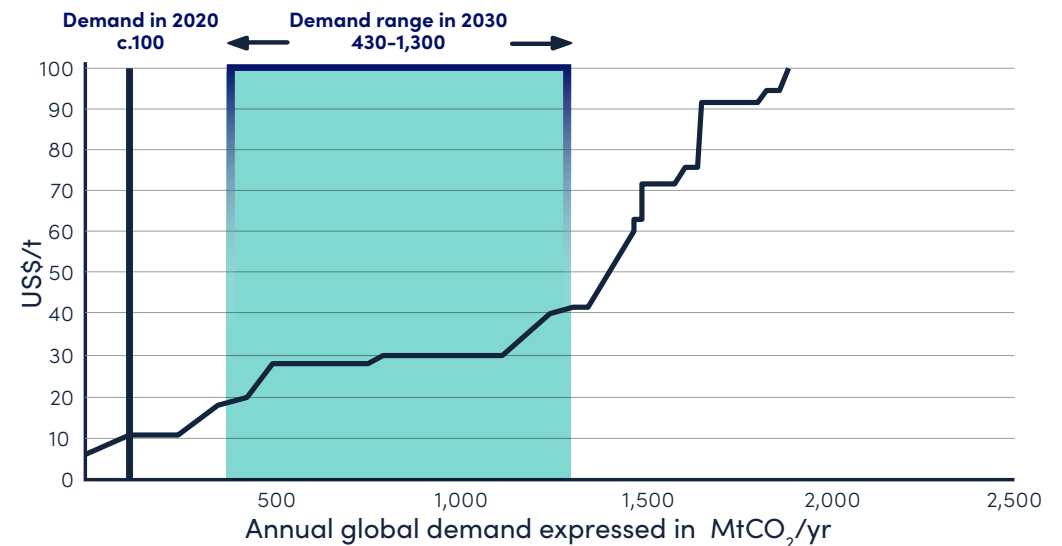
Figure 4:
VCM credit inventory
2010 - 2021 (Sylvera)

Projected demand suggests credit prices will rise significantly, especially given the decline in carbon credit inventory (Fig. 4).⁹ Different types of VCM credits are being traded for between \$5 and \$18 /tCO₂e with high-quality nature-based credits commanding prices towards the top of that range.¹⁰ By 2030, average VCM prices are expected to be at least \$20- 50/tCO₂e whilst further increases in demand should see prices in excess of \$50/tCO₂e by 2040 and beyond (Fig. 5).¹¹

Price increases drive corporate commitments towards decarbonisation and encourage companies to invest in permanently reducing emissions both internally and within their value chain. Along this path to net zero, companies will need to utilise high-quality credits as part of their investment and emissions mitigation strategies.

Figure 5:

Projected available carbon credit supply at different price levels (US\$/tCO₂e): Average over period 2020-2050



⁹<https://www.sylvera.com/blog/2022-carbon-credit-crunch-report>

¹⁰<https://www.spglobal.com/platts/en/market-insights/topics/cop26-un-climate-change-conference>

¹¹<https://trove-research.com/wp-content/uploads/2021/06/Trove-Research-Carbon-Credit-Demand-Supply-and-Prices-1-June-2021.pdf>

ACCENTUATE THE POSITIVE: NATURE-BASED SOLUTIONS

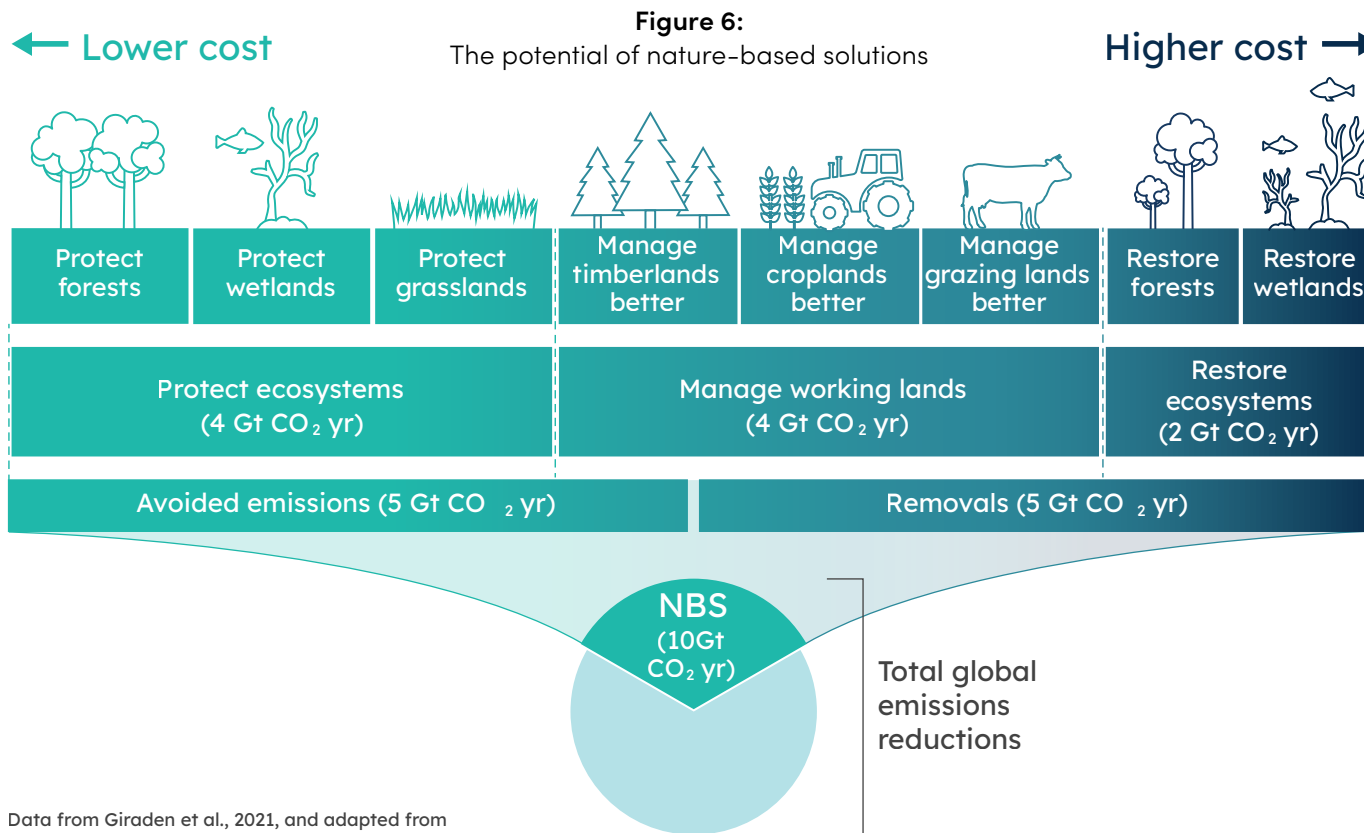
Respira's predominant focus is on nature-based solutions (NBS) involving the protection and restoration of forests, soils and wetlands. NBS are crucial because they can provide up to one third of the emissions mitigation

needed by 2030 (Fig. 6).¹² In particular, it is vital to protect our remaining forests; currently, 10 to 15% of annual global emissions come from deforestation and degradation – more than the transport sector. In 2020, 12 million

hectares of tropical forest, an area almost the size of Bulgaria, were lost, much more was degraded.¹³

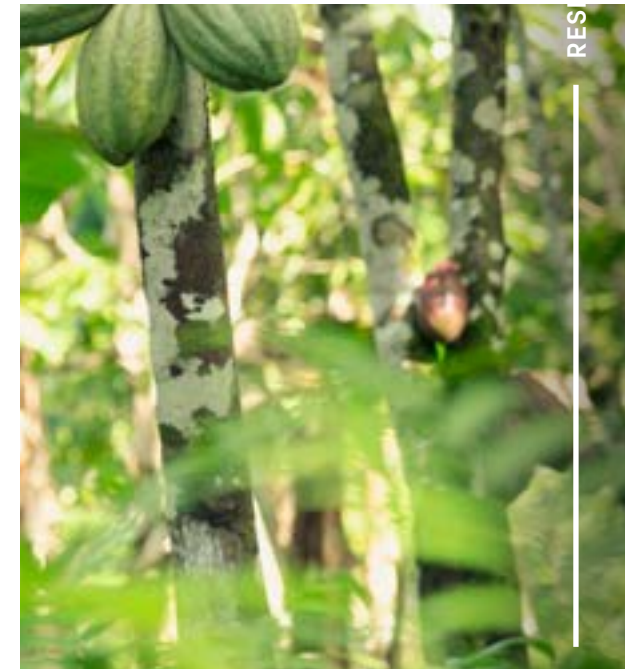
Leveraging carbon markets is one of the best ways to finance these activities as carbon sequestration

is the first ecosystem service to be truly valued at scale in a market. Currently however, only the VCM enables capital flows to such projects since NBS credits aren't allowed in most compliance markets.



¹² <https://www.pnas.org/content/114/44/11645>

¹³ <https://www.globalforestwatch.org/blog/data-and-research/global-tree-cover-loss-data-2020/>



RESPIRA'S PROFIT SHARE MODEL


Profit share is particularly relevant to NBS. Alongside emissions mitigation, nature-based projects often have important co-benefits such as maintaining biodiversity, local community and sustainable livelihoods. Respira has an innovative and equitable financing model which shares upside with projects as prices rise. Respira's

flagship project in Tanzania, developed by Carbon Tanzania in partnership with indigenous communities, is one example of the multiple benefits that accrue from a well-designed, well-managed NBS enterprise (Fig. 7).

Figure 7: Ntakata Mountains project


Ntakata Mountains

The Ntakata Mountains CCB Triple Gold certified project enables government and community collaboration to develop Village Land Forest Reserves that help farming communities protect important wildlife habitat and enhances connectivity in the Greater Mahale ecosystem. The farming communities of the Bende and Tongwe protect their forest and its valuable stored carbon, generating carbon credits that provide revenues to these forest communities.



Award

Project developer




Tanzania

Date established: 2017
Type: Forest carbon (REDD+)




Protects
216,994 ha
of woodland in western Tanzania, important habitat for the endangered eastern chimpanzee.



25,080
people have their medical expenses covered by the Community Health Fund paid for by carbon revenue



>1 million
carbon credits issued to date



5 million
trees prevented from being cut down



Engagement with villages incorporating
38,000 people



8
Village Land Forest Reserves created



US\$732,984
earned in carbon revenue up to December 2021



37%
of management roles filled by women



US\$70,553
spent on building infrastructure in 2020

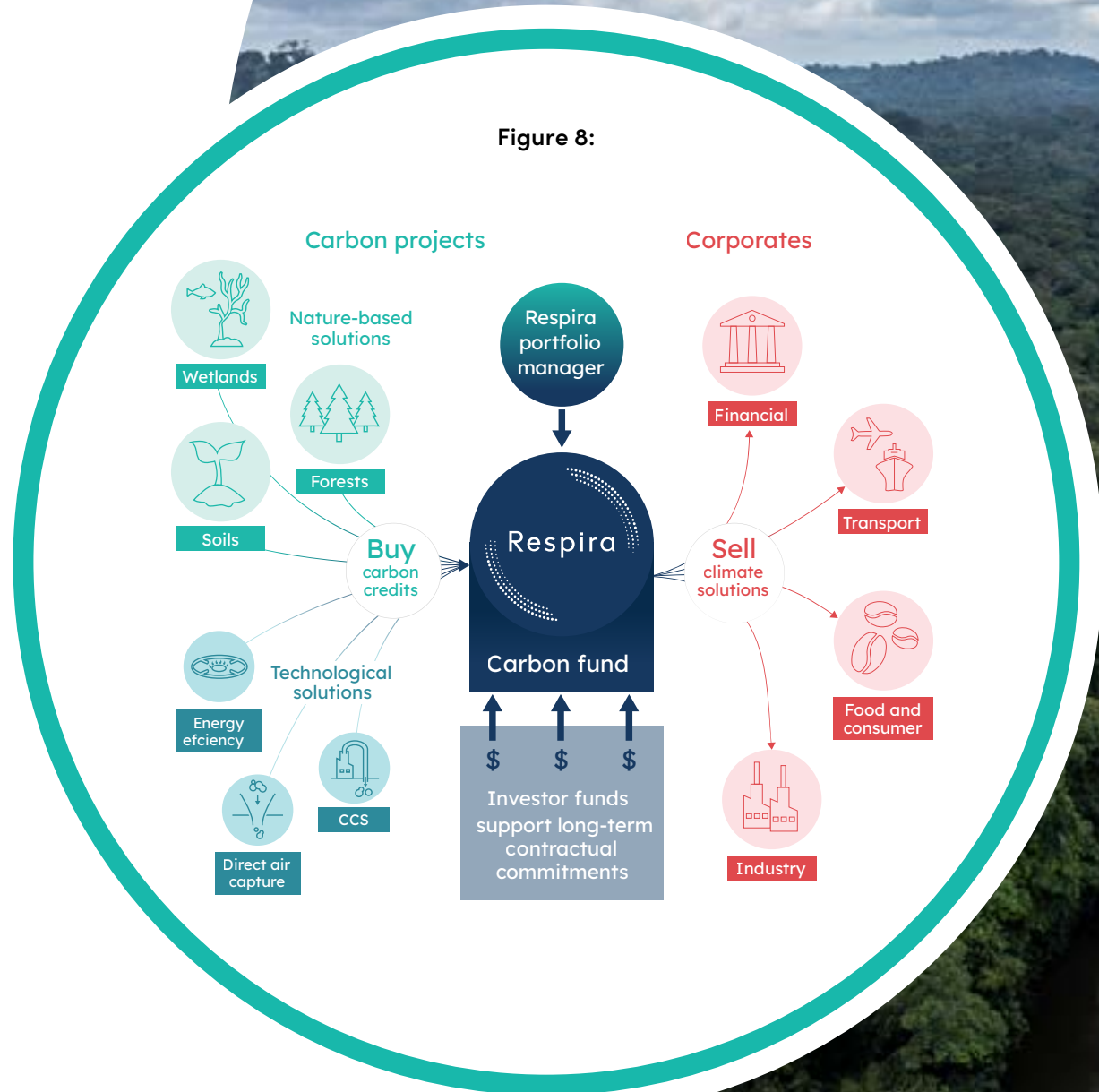


63
people directly employed in forest conservation activities and
>38,000
people directly benefit from the project

WHAT WE DO: THE RESPIRA BUSINESS MODEL

Respira has a proven business model, participating in this growing market by using its balance sheet to provide large scale, underwritten offtake agreements for forward streams of high-quality credits (Fig. 8). This innovative offtake model has inspired other market participants to follow suit. It consists of a guaranteed floor price and a profit share with project developers if prices rise. For project developers, this enables them to focus on the operational side of delivering new and existing projects, with the assurance of long-term revenue certainty. For buyers, Respira is able to act as a reputable counterparty who can provide scale of supply, a diversified portfolio of projects, assurance on underlying project quality and the innovative financial structures which lock in long term forward pricing. This enables clients to manage and hedge both reputational and carbon price risk.

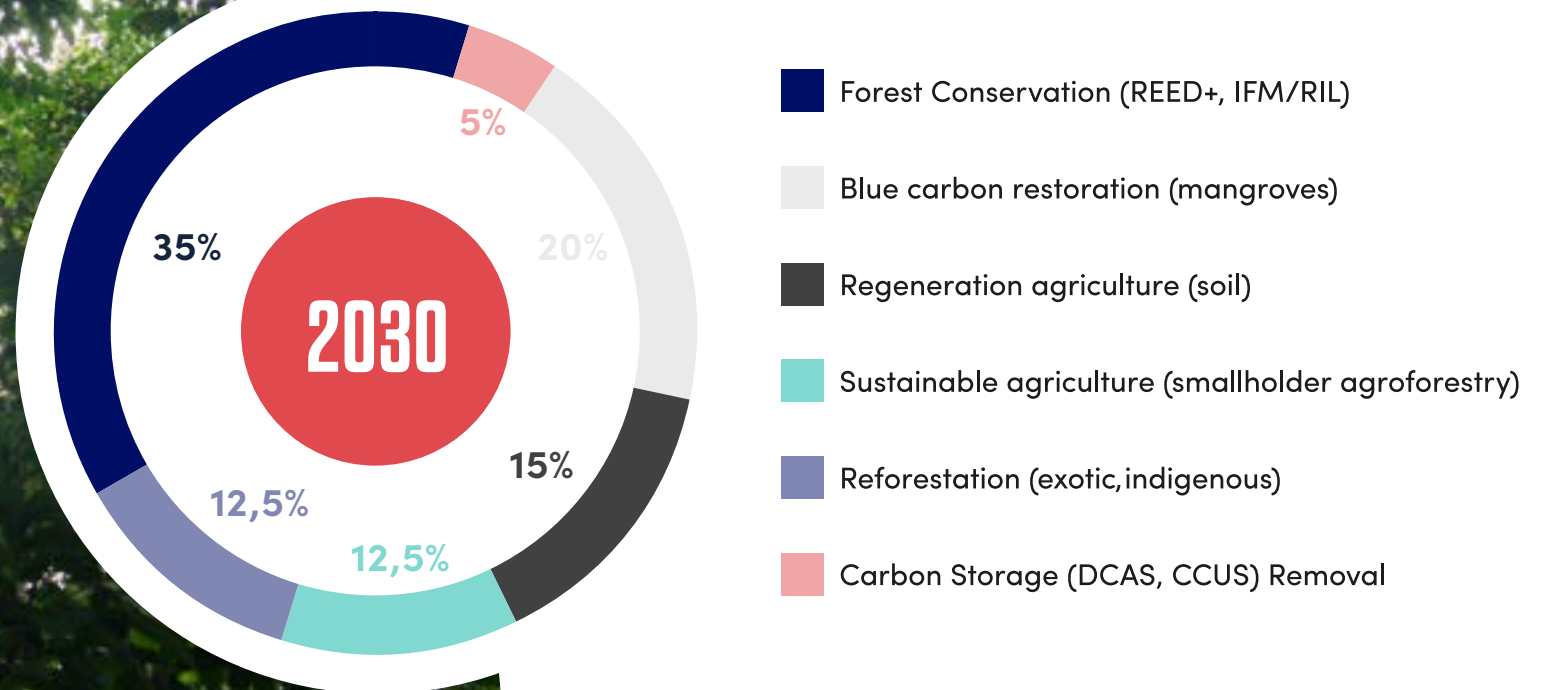
Figure 8:



RESPIRA'S PORTFOLIO

The company consists of a team combining 200+ year track record in financial markets with a deep understanding of carbon project development in leading international conservation organisations. Respira's existing portfolio represents some of the leading NBS projects globally, including the world's largest blue carbon project, the largest soil carbon project and the largest community-based REDD+ project by area, and will be adding new projects throughout 2022. The portfolio is currently predominantly NBS, although in time Respira intends to also support technological approaches to carbon removal (Fig. 9). Importantly, our current model limits operational risk so that customers are primarily exposed to market fluctuations rather than underlying project risk.

Figure 9: Target portfolio composition 2030 (Respira)



AN IMPROVING REGULATORY LANDSCAPE

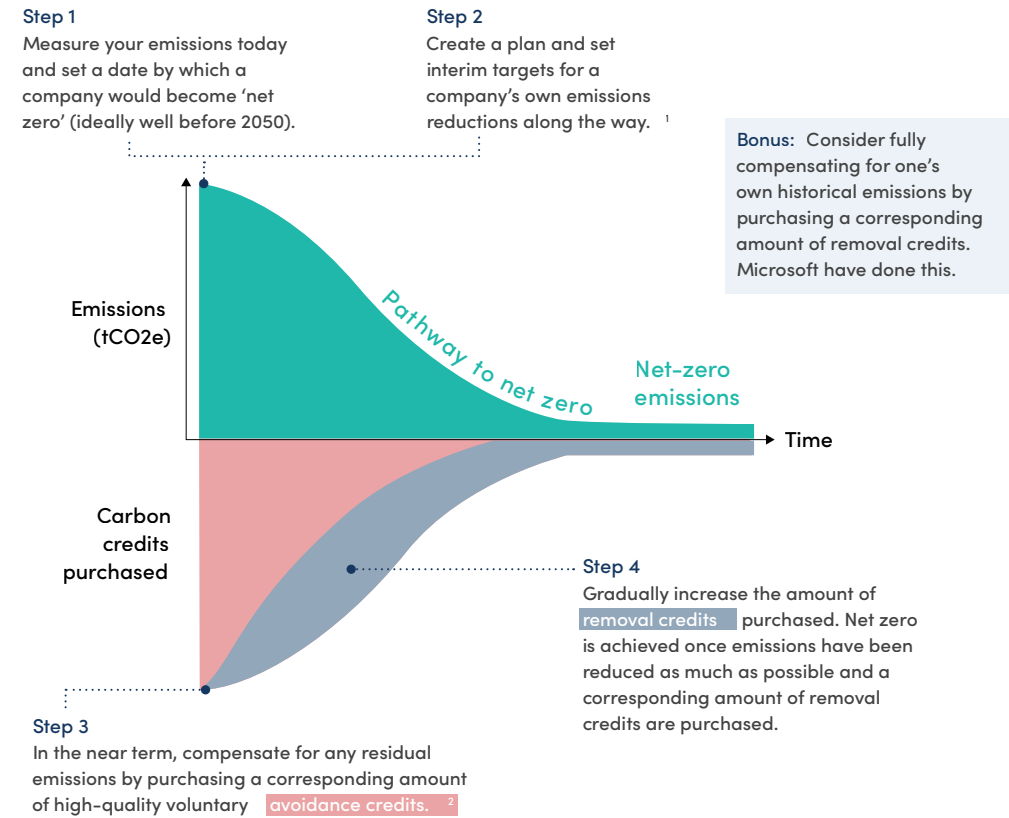
In the past, accusations of ‘greenwashing’ have questioned whether emissions mitigations will have permanence, whether claims are exaggerated, and whether certain projects have been genuinely additional. Perhaps most importantly, detractors maintain that carbon credits are merely a ‘guilt-free’ way for companies to pass the buck whilst doing nothing about their own emissions.

The reality is the VCM has come a long way since its origins. Rigorous standards which assess carbon stocks, permanence and additionality are imposed by leading certification agencies such as Verra and Gold Standard and the rigour of these has improved dramatically in the past 10 years. Scientific methodologies, accurate surveillance and regular verification combine to ensure project credibility. Additionally, the new Integrity Council for the VCM has begun its work setting and enforcing definitive global threshold standards for high-quality carbon credits.

Moreover, in line with various industry standards initiatives such as the Voluntary Carbon Markets Integrity Initiative (VCMI), Respira emphasises the necessity for companies to avoid or reduce their own emissions first, to set future targets now, and then deliver on them. Carbon credits are not a substitute for this. But where mitigation strategies take time to deliver, and where some remaining emissions may still be inevitable, high-quality credits can create impact immediately and compensate for unavoidable residual carbon footprint along the pathway to net-zero (Fig. 10).

An additional issue is that project developers, typically located in low-income countries, will sell their credits but gain no further benefit from potential price appreciation. Respira takes this issue very seriously and our operational model was one of the first to include upside sharing, creating a long-term win-win for both investors and developers.

Figure 10:
The role for high-quality carbon credits on the pathway to net zero



¹ Ideally in line with the latest recommendations from IPCC. Plans can be ‘certified’ by SBTi.

² If one wants to also address forest and biodiversity loss, REDD+ credits certified by VCS and CCB are a great way to do this. Other high-quality avoidance credit types with high co-benefits tracked to SDGs can include cookstoves, boreholes and off-grid renewable energy in least developed countries.

THE TIME IS NOW

Pressure on the commercial sector to create a positive environmental and societal difference whilst doing business is increasing fast. That pressure has multiple sources: shareholders; customers; keeping pace with competitor commitments; meeting ESG goals and the need for 'social licence to operate'.

As a result, the need for voluntary credits is rising rapidly. Today's prices in the voluntary market of (\$5-\$18/tonne) significantly lag behind compliance markets (EUAs passed the \$100/tonne mark a few months ago). Although this may be seen as an additional cost by end-buyers, participating in the VCM offers a natural hedge to future carbon price increases.

We believe that the VCM offers a compelling opportunity to achieve multiple goals – this is the moment for buyers to achieve large-scale ESG goals – for near-term commercial logic and longer-term global interests to coincide; an opportunity to create positive measurable impacts for people and the planet that also make compelling business sense.

The time to act is now.



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If you'd like to know more,
please **contact us**.