

# Natural Born Negatives: Using Natural Climate Solutions in Net Zero Plans

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**Background/Objectives.** Negotiations as part of the recent and highly publicized 26<sup>th</sup> Conference of Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC) have re-invigorated governing entities' focus on systemic reduction in carbon emissions. Adding to this national reduction pressure, increasing urgency from broad coalitions of stakeholders such as sub-governmental agencies and financial institutions is driving an intense pursuit of carbon neutrality as a guiding organizational identity. More than ever, organizations from across all sectors of the global economy, from municipalities to non-profits, to publicly traded industrials are developing and declaring goals to become “net zero” relative to carbon emissions in the years ahead. Along with roughly 135 countries, 115 regional coalitions, and 235 cities with populations of at least half a million, more than one third of the world’s largest companies have already committed to becoming net zero<sup>[1]</sup>.

With net zero target dates looming ever closer, committed organizations require negative emissions to reach their goals. For these organizations, the tools to decarbonize or sequester direct carbon emissions via technological application – carbon capture, utilization, and sequestration, or CCUS – is still challenging and out of reach for most. While some public (e.g., US via 45Q tax credits) and private (Oil & Gas Climate Initiative, via more than \$1b of investment) institutions have sponsored progress in more widespread application of CCUS technology, challenges such as upfront and operational costs and carbon storage persist.

As an alternative to pursuing a technical CCUS approach, many organizations are relying on negative emissions from natural projects to claim carbon capture and reach net zero, an approach often called natural climate solutions. However, not all such natural climate solutions are equally designed, and these projects are under increasing scrutiny from investors and stakeholders, leading many organizations to re-evaluate their net zero plans’ negative emission strategy using grounded science-based targets and more mature certification of provenance for their claimed natural projects. Guidance on the nuances of incorporating natural climate solutions into a systemic carbon neutrality plan is required.

This presentation will offer a discussion of the basics of natural climate solutions, describe key concepts to defining “net zero” in an organization, and highlight critical areas of increased scrutiny and potential pitfalls to avoid.

**Approach/Activities.** This study will leverage systematic reviews of applicable science literature, governmental and regulatory frameworks, and organizational briefs and compile best practices for an organization to incorporate natural climate solutions into their programmatic net zero goals. Case studies will be offered to highlight reporting community-accepted approaches and well-regarded examples in the space.

**Results/Lessons Learned.** Guidance will be developed for organizations to consider the definition of net zero goals with reliance on natural climate solutions.

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Net zero goals referenced from the Net Zero Tracker, accessed December 6, 2021, <https://zerotracker.net/>.

OGCI website, accessed December 6, 2021, <https://www.ogci.com/>.

Muslemani, H.; Liang, X.; Kaesehage, K.; Wilson, J. Business Models for Carbon Capture, Utilization and Storage Technologies in the Steel Sector: A Qualitative Multi-Method Study. *Processes* 2020, 8, 576.

<https://doi.org/10.3390/pr8050576>