

Statement on Evidensia-led systematic literature review to understand the effectiveness of corporate carbon offsetting as an alternative to direct emissions abatement

30 July 2024

In December 2023, the Science Based Targets initiative (SBTi) commissioned [Evidensia](#) to conduct a systematic review in order to assess evidence from peer-reviewed scientific literature on the effectiveness of corporate use of carbon credits as an alternative to direct emission abatement as part of company decarbonization efforts. This is a research input into the revision of the SBTi Corporate Net-Zero Standard, currently underway.

Systematic reviews are research studies that sum up the best available evidence on a specific research question and use transparent procedures to find, evaluate and synthesize results from multiple studies. Such reviews are most useful when there is a critical mass of relevant primary, empirical research that speaks to the research question and provides robust, comparable data to assess intervention effectiveness.

The research question that guided this review was **“What does the scientific evidence say on the climate impact on the purchase/use of carbon credits (and related finance/corporate investment) from beyond the value chain by corporations as an alternative to abatement of emissions within the value chain?”**

A decision was made to focus the evidence search to academic journal articles, using three leading academic databases for the search. This decision to focus on academic journal articles was made to ensure only the highest quality, independent evidence would be included in the review, and so as not to duplicate parallel efforts from SBTi’s call for evidence and grey literature on the same topic.

The research team’s search yielded 10,267 articles. These were screened for relevance following the PICO (Population-Intervention-Comparison-Outcome) framework for exclusion / inclusion that is the practice in systematic reviews. This resulted in 489 articles that were identified for full text review. From this sample, only five papers strictly met all inclusion criteria and one additional paper provided comparable data to assess the effectiveness of carbon credits in comparison to other emission abatement strategies by the same company/group of companies.

A systematic review of results cannot be conducted on such a small sample of papers as it would not produce a strong synthesis basis to draw robust conclusions.

This leads the SBTi and Evidensia to conclude that a negligible amount of scientific evidence assessed meets the conditions set out for this exercise and answer the research question. Further investigation would be needed to assess whether robust evidence exists under different methodological conditions. It is also acknowledged that more research and discussion on this

topic exists in the grey literature or might be collected as part of ongoing reporting and disclosure initiatives. Such material was outside the scope of this piece of work, though examples of it may have been submitted as part of the SBTi's call for evidence.

The SBTi will consider the findings of this research exercise and knowledge gaps, as part of the process to revise the SBTi Corporate Net Zero Standard.

For any questions on this study please contact: evidensia@isealalliance.org