

TRANSPARENT OR TRANSLUCENT?

The “Net Zero” Industry and How To Navigate it in a Positive Way



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“Research Conducted by Cameron Burke alongside Tommy Carvalho”

INTRODUCTION

ABSTRACT

The net zero industry has gained traction as a push towards decarbonizing our economy, notably through the UN backed, “race to zero” campaign adopted by around 9000 organizations worldwide¹. More importantly, consumer behaviour has increasingly seen shifts towards eco-conscious purchasing behaviour, prioritizing sustainability and environmental responsibility as key factors in purchasing decisions⁶. While the net zero industry constitutes an overall goal of creating a healthy natural environment, we questioned its overall effectiveness, this uncertainty stemmed from its swift upheaval as a major organizational priority, and the somewhat lackluster regulation.

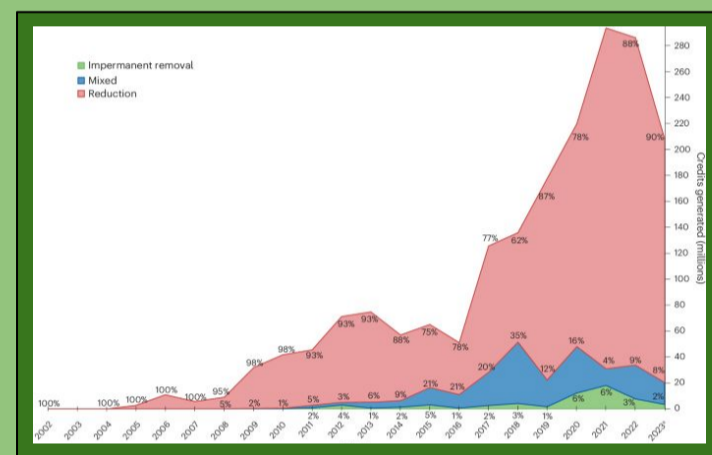


Figure 1: Carbon Credits Issued by Year, Delacote, et. al 2024⁷

BACKGROUND

While carbon crediting is a necessity for industries, with boundaries set by federal governments, our research focused on the voluntary carbon market (VCM). As it is voluntary, regulations are less strict and companies attempting to publicize their commitment to climate regulation, end up leading to fraudulent acts and incidental greenwashing. With the use of green marketing, companies are seeking to gain first-mover advantages towards climate conscious producers/suppliers in order to align corporate structure with societal values, or projected consumer considerations⁶. This lack of regulations mean very few companies provide details on what the goal of their voluntary offset strategies are. We also examined consumer behaviour, looking into the public understanding of sustainable initiatives and their effect on organizational behaviours.

RESEARCH OBJECTIVES

- To critically evaluate the efficacy, challenges, and ethical concerns surrounding the carbon crediting industry as a mechanism of promoting sustainable practice and mitigating climate change
- Focusing on its regulatory systems, market dynamics and controversies surrounding proper adoption and its use as a long-term solution
- Examining the influence of industry giants neutrality claims in the offsetting industry, assessing legitimacy and consumer reciprocity of these claims
- We will also narrow our scope, looking at “Tru Earth”, an organization based in British Columbia that exemplifies proper behaviour and operational transparency



RESEARCH

CONSUMER BEHAVIOUR

In addition to approaching climate mitigation processes such as carbon crediting, it is important to gather information from all parties contributing to the rise of the industry. When analyzing the consumer, we found that only 3% of consumers were aware of what a “climate neutral” claim consisted of⁸. “Green” products also are shown to have a higher chance of growth within the market, yet, more susceptible to greenwashing, falsehoods, etc. Due to lack of regulations, very few companies provide details on whether their carbon offsets are used to increase the ethicality of its business operations or whether its to substitute other positive investment opportunities as abatements⁹.

A German study used in our research process conducted a study on consumer decision-making and their ability to identify honest green products compared to their greenwashed counterpart. 150 citizens were tested and the results benefitted this idea, with consumers buying both products at comparable frequencies. This was done through an online shopping site, with the three items tested being toilet cleaner, hand cream and smartphones.

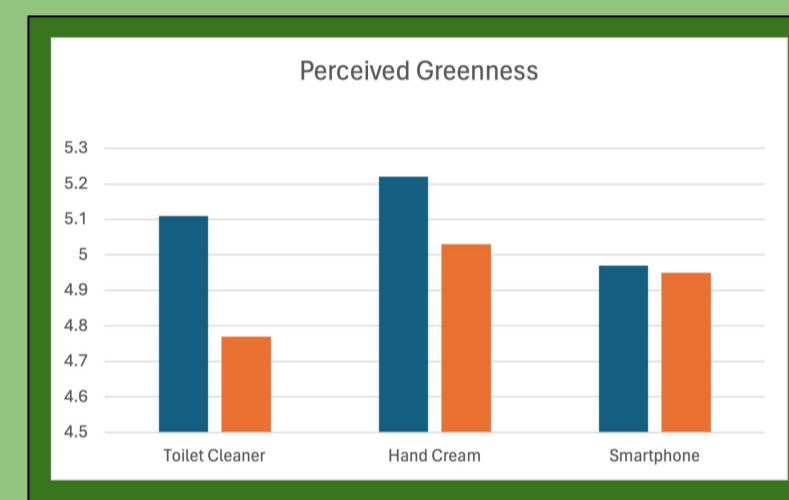


Figure 2: Green Product (Blue) vs Greenwashed Products (Orange) Fella and Bausa, 2024 (Made in Excel to Simplify relevant data)¹⁴

CONTROVERSIES

While reducing emissions is crucial for environmental longevity, there is concerns that carbon offsetting initiatives are actually holding companies back from investing in managing their own emissions. Most researchers claim that the right of acquisition of carbon offsetting elements oversimplifies nature and commodifies an entity which cannot be easily measured. It is also fair to mention that while market systems can be easily measured and forecasted, natural devices are not as simple. Nature is interconnected, so offering up the “property” of a certain resource will not necessarily replace the amount of carbon within a certain operation without other steps in the process⁵.

While on paper a company is creating a lower amount of GHG emissions, the stake invested serves as a bypass to create solutions to personal operations. Companies continue these investments as they are a “cheap” alternative. An example from a global organization would be in the case of Apple. They claim to reduce emissions by 90% by the year 2050, and while this may be true, currently they have deadlines such as 75% by 2030. They can make these claims through the use of carbon credits, ensuring consumers see the outwardly projected notion of Apple meeting these GHG emission goals. Truthfully they are using credits as a cheap alternative instead of ensuring their internal processes get are improved¹¹. This is mostly done in the voluntary carbon market (VCM) as they view the industry as a way to improve customer sentiment and brand loyalty.

EFFICACY

A study done using quantitative and qualitative data on around 2,346 carbon mitigation projects saw that only 912 million credits issued, only 160 met targeted achievements¹².

From Cambridge, REDD+, which focuses on reducing deforestation, equate to over 150 million credits to the VCM for organizations to achieve “net-zero” claims. In truth, they are selling a prediction that these forests would be cut down otherwise¹³.

ACCURACY

While carbon crediting initiatives are somewhat effective at what they do, the concern surrounding the transparency and effectiveness of carbon crediting as a way of climate mitigation have been under fire recently, due to over crediting and the lack of positive impact achieved by many of the strategies². One of the main concerns with GHG emission is accurate data collection.

Technologies evaluating company emissions can be underrepresented, which in turn leads to “market leakage” where offsets end up producing more carbon than they claim². For example, 82% of IFM (improved forest management) credits issued by California Air and Research, did not display accurate emissions due to leakage assumptions being underrepresented². This will remain true with current technologies, so in order to represent data accurately, assessments must be more conservative.

The accurate representation of data analysis is crucial for the companies purchasing credits. Increasing transparency will create a stronger company image and develop improvements for all stakeholders, holding them accountable in operating their own CSR initiatives.



MODELS

	Issued	Covered
Deforestation	322 MT	106 MT
Improved Forest Management	160 MT	0 MT

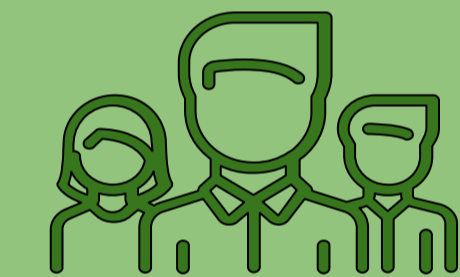
Figure 3: Study from Nature.com (Probst, Toetzel, et al. 2024) relating to the overall efficacy of Voluntary Carbon Crediting Projects¹². While IFM projects were observed, the only direct effect on GHG emissions were that they maintained forests from degradation and extraction

CONCLUSION

SUMMARY

While carbon offsetting has shown to have positive effects on meeting UN GHG emission goals, the lack of regulation, poor data analytics, and ease of implementation have led to the industry to be unreliable, raising concerns about greenwashing initiatives.

- The voluntary carbon market (VCM), is extremely volatile to market trends and purchases are at the discretion of the individual organization leading to less urgency for regulatory governance
- Data analytics accounting for market leakage are largely underrepresented
- While climate mitigation strategies, such as offsetting, were originated for temporary usage, due to ease of implementation and cost effectiveness, organizations have halted permanent operational solution strategies
- With growing consumer trends increasingly basing purchasing decisions off of environmental, social, and economic responsibility, organizations monitoring efficacy of climate mitigation strategies can gain first-mover advantages



ACKNOWLEDGEMENTS

The Gustavson School of Business at the University of Victoria has built a foundation of sustainable action within its student culture and in other areas of our education. While this is deemed a priority in our current curriculum, it is common for sustainability to be undervalued in the context of business practices. As we set out on determining our research objectives, we kept this in mind.

While we begin our careers in business, we realize we play a role in determining the future of corporate culture and developing a mindset not only set on profits and maximizing shareholder value, but building an extensive strategy viewing all stakeholders as key players in company operations.

RESOURCES

Link to all of the sources used in research process



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