

Article

An Integrated Framework to Assess Greenwashing

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Abstract: In this paper we examine definitions of ‘greenwashing’ and its different forms, developing a tool for assessing diverse ‘green’ claims made by various actors. Research shows that significant deception and misleading claims exist both in the regulated commercial sphere, as well as in the unregulated non-commercial sphere (e.g., governments, NGO partnerships, international pledges, etc.). Recently, serious concerns have been raised over rampant greenwashing, in particular with regard to rapidly emerging net zero commitments. The proposed framework we developed is the first actionable tool for analysing the quality and truthfulness of such claims. The framework has widespread and unique potential for highlighting efforts that seek to delay or distract real solutions that are urgently needed today to tackle multiple climate and environmental crises. In addition, we note how the framework may also assist in the development of practices and communication strategies that ultimately avoid greenwashing.

Keywords: green claims; greenwashing; greenwashing framework; misleading/deceptive environmental communication; net zero; public relations; selective disclosure; sustainability; transparency

1. Introduction

Awareness is growing around the world about deceptive or outright false environmental claims made by companies, non-profits, and even governments when communicating their strategies on environment and climate issues. These claims can be used to promote the organisations’ social status, relationships with consumers and employees, or short-term profits, while avoiding making more substantive changes necessary to rapidly reduce negative impacts on the environment. Despite this growing awareness, greenwashing remains widespread. A recent review of 500 global websites led by the UK’s Competition and Markets Authority and the Netherlands Authority for Consumers and Markets (as part of the International Consumer Protection and Enforcement Network) showed that roughly 40% of

green claims fall into the category of greenwash. Most countries have regulations in place for minimizing misleading claims, but most focus on commercial practices only. For example, in the US, the Federal Trade Commission produced the FTC Green Guides [1]; the EU has launched the Unfair Commercial Practices Directive [2] and a Guidance Document [3] on its implementation; and in the UK, the Advertising Standards Association Codes [4] have laid down requirements for responsible advertisement. The most recent effort is the Guidance on Green claims code by the UK's Competition and Markets Authority [5], which aims to help businesses comply with the law when making environmental claims. While non-business actors, non-profits and government activities go unregulated, even within the 'regulated' business sector, the high percentage of greenwashing in advertising suggests that companies feel sufficiently confident that they will not be held accountable for their claims. Other than piecemeal efforts by NGOs, bloggers, and journalists—such as the Guardian's year-long series "tracking the unprecedented efforts to hold the fossil fuel industry to account" [6] or ClientEarth's Greenwashing Files [7]—greenwashing beyond commercial practices remains largely unmonitored. Furthermore, accountability efforts, as well as national regulations, often leave out non-commercial actors and non-advertisements (e.g., pledges, partnerships, certifications), where greenwashing also occurs.

Significant deception and misleading claims have been identified in this sphere, with some even embedded in law. A recent example is the EU taxonomy on sustainable finance, which lists controversial energy sources, among them ethanol and wood biomass, as sustainable [8] while including gas and nuclear in the green taxonomy [9]. Sustainability certification, when not conducted rigorously, can also be used as green cover for corporations and governments to deepen the assault on ecosystems and social and indigenous rights. Such multi-stakeholder initiatives may give false environmental credibility to so-called 'sustainable' or 'more sustainable' products/services, as recently reported by MSI Integrity [10] in 'Not Fit for Purpose'. Climate-neutral and net-zero claims similarly may deceive people through purposefully vague formulations: the thousands of net-zero commitments announced by governments and firms can be interpreted and implemented in as many ways as there are actors who have committed to them.

The problem we address is that there is no universal definition of greenwashing or standard of behaviour that would help to detect it. The purpose of this paper, therefore, is to fill this gap in the recognition and understanding of misleading and deceptive environmental communication by providing a framework to assess greenwashing by organisations. At the same time, we recognize that there are many actors committed to minimizing negative environmental impacts of companies and organizations. A strong and coherent set of guidelines such as those we develop can also help positive actions to be fully understood and supported by the public.

The primary objective in this article is to develop a science-based assessment tool to promote discussions around transparency and accountability, inform the public about how they could be potentially misled with false solutions and pledges and help different actors to avoid greenwashing. The integrated framework that we include in the linked Supplementary Table S1 is based on (a) integrating existing theoretical greenwashing frameworks and the different types, varieties and so-called 'sins' of greenwashing that the literature has presented to date, and (b) developing it further to create an actionable framework to assess greenwashing efforts by any actors. Along with the assessment framework, we provide an operational definition of greenwashing, which is intended to encompass a variety of misleading communications and practices that intentionally or not, induce false positive perceptions of an organisation's environmental performance. In doing this, we promote dialogue that importantly fine-tunes the meaning of greenwashing as a complement to determining the methods we propose for assessing it.

2. Materials and Methods

We conducted an extensive review and qualitative analysis of the academic research literature to identify the main types or varieties of greenwashing and the different indicators

or questions that have been offered to test for its presence. We were mostly interested in papers that focused on typologies of greenwash and detecting greenwashing, and we undertook a multi-step process to identify and analyse these. In doing so, we focused on the academic literature but also searched practitioner outlets and resources to ensure our review was systematic.

In the first step of our analysis, we identified three prominent articles and reviews for synthesis in our framework development. We did not intend to replicate recent systematic academic reviews of the greenwashing literature (e.g., [11–13]). Instead, we sought to build on their outcomes and analysis as a basis from which to extend the limited research on identifying and detecting greenwashing. Their resultant subsets of literature formed the nucleus of our overview of literature and the basis of our framework development, as described below.

First, Lyon and Montgomery [11] reviewed and synthesized the multidisciplinary research on greenwashing and reviewed 34 papers in three categories: drivers of greenwash; varieties of greenwash and the impacts of greenwash. Because of our research objective, we focused merely on the literature that they included while discussing the different varieties of greenwash. Second, Gatti et al. [12] searched for the keywords “greenwash” and “greenwashing” in the titles and abstracts of English articles between the period 1995 and 2018. The authors then conducted a qualitative content analysis to assess the core findings and identified the following categories of research: the meaning of greenwashing; the antecedents and drivers of greenwashing; the consequences of greenwashing; how to reduce greenwashing; and how to detect greenwashing. For our research purposes, we then focused on those articles which Gatti et al. identified within the category of “how to detect greenwashing”. Third, de Freitas et al. [13] also conducted a systematic review on the concepts and forms of greenwashing using the keywords of “greenwash”, “greenwashing” and “greenwasher” in the academic search engines of Web of Science and Scopus. The authors searched for these keywords in the titles, abstracts, introductions and conclusions and identified a list of 67 publications between 2009 and 2018. Similar to our objectives, de Freitas et al. also looked for the phenomenon characteristics and typology of greenwashing, and out of the 67 documents, found 17 that provided insights on these aspects.

In the second step of our methodology, we wanted to move beyond scholarly articles on the issues of greenwashing and its detection and so we conducted a thorough internet search (using Google) with the keywords “greenwash checklist”, “greenwash indicators” and “greenwashing frameworks” to include non-academic and practitioner sources. Here, we searched for resources and organizations that offered criteria or checklists to help assess/guide companies to avoid greenwashing. Many of these (e.g., [14–16]) had already been identified and highlighted in the academic articles analysed in our review in the prior step. However, through our search process we were able to add additional practitioner resources (e.g., [17–19]) that had not been identified in prior literature. These helped us to inform and develop our analysis and novel greenwashing framework.

Finally, as a third step, we also investigated the legal contexts within the EU, the UK, and the US and included in our framework insights from the guidelines that have been established in those governments to help companies to avoid misleading environmental claims in their advertisements and other environmental communications. All these different sources formed the backbone of our framework especially with regards to determining the various varieties of greenwashing and their descriptions (included in the first and second columns of the Supplementary Table S1).

During this review we found that academics have not yet come up with a single, widely agreed upon and applicable method of measuring greenwashing objectively. One of the pioneers in identifying and analysing greenwashing was the Center for Media and Democracy founded by John Stauber in 1993. Their books [20,21] and other efforts paved the way for investigative research into greenwashing and related deceptive practices and their effects on consumers. Over the last decades, extensive work has been done to categorize and quantify product-level greenwashing. For example, Gillespie [22] identified

“ten signs of greenwash”, ranging from “fluffy language,” words or terms with no clear meaning such as “eco-friendly”, to “outright lying,” as in totally fabricated claims or data. The TerraChoice Environmental Marketing [14] categorized product-level greenwashing into “seven sins”. These range from the “sin of the hidden trade-off”, committed by suggesting a product is green based on an unreasonably narrow set of attributes without attention to other environmental issues, to the “sin of fibbing”, which is committed by making false environmental claims. The other sins are the sin of no proof; sin of vagueness; sin of irrelevance; sin of lesser of two evils; and sin of worshipping false labels.

Greenpeace [15] defined four greenwashing detection criteria: dirty company, ad bluster, political spin, and “it’s the law, stupid!”. In 2007, EnviroMedia Social Marketing in collaboration with the University of Oregon implemented the “Greenwashing Index Scoring Criteria” and a tool was made available on the internet (www.greenwashingindex.com, accessed on 17 February 2022) which allowed users to assess the amount of greenwashing in ads claiming to be green. They used the following criteria in their assessment: the ad misleads with words; the ad misleads with visuals and/or graphics; the ad makes a green claim that is vague or seemingly unprovable; the ad overstates or exaggerates how green the product/company/service actually is; and the ad leaves out or masks important information, making the green claim sound better than it is.

Gallicano [23] created the first integrated framework based on synthesizing the methods by four organisations used for assessing greenwashing claims (Greenpeace, the EnviroMedia Social Marketing and the University of Oregon, TerraChoice Environmental Marketing (now Underwriters Laboratory) and the Committee of Advertising Practice). The framework developed by Gallicano consisted of seven main themes: Skeleton in the closet; The Right hand isn’t talking to the left hand; Magic Tricks, Larger than Life; May I have the definition please?; Law and order; and Truth and Fiction. In addition, a description of the meanings of each of these is provided alongside an explanation of their significance. This framework allowed comparisons and contrasts of the public environmental criticisms using the case of Starbucks’ online information and corporate social responsibility reports (see appendix of Gallicano [23]).

Next, focusing on conceptualization and theoretical development, Lyon and Montgomery [11] synthesized the research on greenwashing and highlighted several varieties of greenwash. Importantly they noted that the literature was not mature enough to have identified all its forms: Selective disclosure; Empty green claims and policies; Dubious certifications and labels; Co-opted NGO endorsements/partnerships; Ineffective public voluntary programs; Misleading narrative and discourse; and Misleading visual imagery. In presenting these ideas the authors provided great insight into understanding the many definitions of greenwashing and its various forms, contributing to greater clarification of the concept, and providing tools for understanding its presence.

Zanasi, Rota, Trerè and Falciatori [24] took this a step further by developing an analytical tool that includes a list of indicators derived from several different organisations (Greenpeace, EnviroMedia Social Marketing and the University of Oregon, Terrachoice, Futerra) and authors. This work covers a broad range of sustainability dimensions as well as offers communication suggestions in order to avoid greenwashing, focusing on the agrifood sector in particular. The authors suggest a number of indicators for greenwashing assessment including: Analysing the entire product’s Life Cycle; Ad contents should be accessible, complete and verifiable; The language should be understandable and non-misleading; Communicate sustainable activities only when they are effective, meaningful and voluntary; Involve/engage; Do not use misleading “green” images; and Choose reliable third party certification schemes. They suggest that further studies should weigh the different greenwashing indicators in order to appreciate their relevance in contributing to the overall level of meaningful communication on the subject.

Taken together, these various evaluation tools and frameworks from both the academic literature and monitoring organisations provide a foundation for our work here. In addition to examining national guidelines on green marketing (e.g., [1,2,4]), in our framework we

mostly draw on sources from TerraChoice Environmental Marketing [14]; EnviroMedia Social Marketing and the University of Oregon [16]; BSR & Futerra [17]; Gillespie [22]; Greenpeace [15]; Gallicano [23]; Lyon & Montgomery [11]; Parguel, Benoit-Moreau and Russell [25]; Berrone [26]; Scanlan [27]; Siano et al. [28]; Contreras-Pacheco and Claasen [29]; Zanasi et al. [24]; and Sourcewatch [18]. We discuss the integration of these ideas in the section that follows, seeking to build on their work with our assessment framework.

3. Results

3.1. Greenwashing: Definition and Varieties

As a concept, greenwashing has been examined from a number of academic disciplines in addition to being a part of conversations among various government bodies and non-governmental organisations. Research contributing to its conceptualization and understanding has come from the fields of business (including advertising, ethics, and marketing), media and communications, environmental studies and management, production engineering, law, and the social sciences (including economics, geography, political science, psychology, and sociology) among others. Given the diversity of perspectives that are a part of the conversation, it should come as no surprise that no single definition of the concept has been universally accepted. Furthermore, as greenwashing becomes increasingly important and attracts more attention, definitions continue to evolve, therefore presenting a moving target of sorts as policymakers, practitioners, and scholars discuss the issue.

What has emerged instead is a collection of definitions that are connected through overlapping ideas that reveal a number of core elements of the concept or ways that it manifests itself. Greenwashing can therefore take on multiple forms and reflect a variety of components of interest that present both objective and subjective realities. In this paper, it is not our intention to resolve debate over what definition is best nor develop what we believe to be the universal standard. We instead can refer the reader to a number of important academic studies that have done this in a far more thorough manner than what we are able to do here including de Freitas Netto et al. [13]; Gatti et al. [12]; Lyon and Montgomery [11]; or Seele and Gatti [30]. We simply want to enable a basic understanding of the concept and its various manifestations for the reader while presenting a simple definition that can serve as a benchmark for using the framework that we have developed to assess its prevalence.

The Appendix A contains a collection of several definitions for greenwashing. Reflecting the larger conversation on the topic, these come from a range of academic analyses [13,31–34], consumer organisations [19,35], government entities [3,36], media [37,38] and non-governmental organisations [18,39] among others. In addition, definitions of the concept are also quite common from various dictionary or encyclopaedia sources [40], with Becker-Olsen and Potucek [41] providing a particularly meaningful definition given the corporate social responsibility context in which it appears:

Greenwashing refers to the practice of falsely promoting an organisation's environmental efforts or spending more resources to promote the organisation as green than are spent to engage in environmentally sound practices. Thus, greenwashing is the dissemination of false or deceptive information regarding an organisation's environmental strategies, goals, motivations, and actions.

An often-used definition of greenwashing comes from the marketing and consulting organisation TerraChoice, which is now a subsidiary of Underwriters Laboratories [14]: "Greenwashing is the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service". This definition captures the essence of the core ideas that are central to the many available definitions, thus reflecting the most important themes in its conceptualizations. Furthermore, complementing its "seven sins of greenwashing" and examples used to identify it (see [42]), TerraChoice's conceptualization and application connect well with the framework we develop here.

New empirical analyses of greenwashing are constantly emerging in the wake of seemingly expanding consumer demands for corporate accountability and social responsibility

alongside concerns about climate change and the environment. Furthermore, theoretical considerations have evolved in a way that requires a continual reassessment of the definition and forms of the concept. For example, definitions and research on the topic typically has viewed greenwashing as a deliberate corporate action fraught with misleading elements, focused on the deception of stakeholders. More recent literature on greenwashing suggest that it is not necessarily deliberate and furthermore encompasses a range of phenomena that go well beyond simply the disclosure of information (see [11,25]) though of course others (e.g., [37,43]) may disagree regarding the intentionality dynamic thus indicating the importance of ongoing debate.

In another example of the concept's evolution, the literature also shows that just like corporations, NGOs, and governments can engage in greenwashing: in fact, they may often serve as partners in corporate greenwashing [11] or manage public perception of a specific policy or various programs [38,44]. Sometimes "greenwashing" is not out of malice, but instead due to ignorance of environmental issues and environmental laws. It can also be a result of poorly conceived public relations efforts, which lead to the promotion of false or misleading environmental claims. In addition, the study of greenwashing is primarily concerned with environmental issues, a notion that Gatti et al. [12] (p. 6) reinforce in their finding that 61.6% of the studies they reviewed felt this exclusively to be the case. However, there are far reaching implications, and as this same study further notes, 38% believe that the concept relates to social issues as well (Ibid). For this reason and for purposes of both developing and applying a framework for its assessment, it is essential to consider the consequences that greenwashing has with regard to interface between the environment and society and its connections to additional components that are important to corporate social responsibility (see [12,45]).

Finally, building on the emergent literature and for the purpose of framework development and assessment, we have developed the following working definition, which we derive from the sources noted above: greenwashing is an umbrella term for a variety of misleading communications and practices that intentionally or not, induce false positive perceptions of an organisation's environmental performance. It can be conducted by companies, governments, politicians, research organisations, international organisations, banks and NGOs too and it can range from slight exaggeration to full fabrication, thus there are different shades of greenwashing. The Supplementary Table S1 presents the 13 main varieties/themes of greenwashing. Table 1 below is intended to reflect a sample of definitions that appear in the framework.

Table 1. Glossary of terms appearing in the integrated framework to assess greenwashing.

Terms	Definitions
Claim	Evidence that organisations use to prove their point. Claims can take the form of verbal or written statements, pictures, reports, ads, but also collective aspirations by stakeholder groups; pledges; codes of conduct that define specific production or sourcing practices; and sectoral standards including principles, criteria and forms of verification agreed on by several stakeholders within a sector.
Greenwashing	An umbrella term for a variety of misleading communications and practices that intentionally or not, induce false positive perceptions of an organisation's environmental performance.
Organisation	An entity—such as a company, a consultancy, bank or an association (e.g., NGO)—comprising one or more people and having a particular purpose. For the purposes of the framework, governments and sub-national actors are also treated as organisations.

Table 1. Cont.

Terms	Definitions
Transparency	A form of public exposure used to display communicative power. Assessments of transparency go beyond mere availability of information [46]. They must consider the means of transparency (e.g., self-disclosure versus legal requirement), the context of transparency (e.g., Through whose labour is the transparency achieved? Who controls the timing, scope, and particularities of information distribution?) and the beneficiaries of transparency (e.g., self-branding exercise or civic obligation)? [47]

3.2. Integrating Greenwashing Frameworks

Greenwashing frameworks, guidelines and checklists have been developed by several actors, among them academics, NGOs, and business consultants for a variety of reasons. BSR & Futerra [17] in their practical manual for companies on greenwashing, offered a useful categorisation for avoiding the various types of greenwash: impact (ensuring it's real), alignment (building support internally and externally) and communication (ensuring it is accurate). They advised that when an actor wants to communicate a message about environmental issues, (a) it should be based on real, significant impact; (b) it should be aligned with multiple functions within the organisation and the integrity of claims should be checked by credible third parties; and (c) the communication should be focused on clarity and transparency. We have decided to follow these three categories within our framework as they capture all the various types and varieties of greenwashing in a meaningful way.

The resulting framework consists of 13 themes, describing the various types of claims used in greenwashing, all taken from existing literature (see first column of the Supplementary Table S1 for the list of themes). First, we have included themes in our framework that appeared in several research publications. Because some of them have been named differently by the various authors, we use names that best reflect the descriptions of the themes. Second, we included the descriptions of the different themes (second column of the Supplementary Table S1). Next, we integrated various statements, indicators, and questions that either the scientific literature on greenwashing examined or those non-academic discussions of greenwashing have deemed to be important (third column of the Supplementary Table S1) regarding the previously described themes. Where the different sources offered some statements that could be changed into the format of a question, we have integrated these, sometimes with modification so that the question is applicable for testing within the framework.

We discovered a large gap in the academic literature. While several authors have referred to different forms of greenwashing, in some themes (most noticeably in 'dubious certifications & labels' and 'co-opted endorsement'), we did not find corresponding questions, statements or criteria that could help to assess whether an actor engages in greenwashing. For instance, under what circumstances could certification schemes support greenwashing? Similarly, when could national agencies or NGOs be accused of contributing to corporate greenwashing? We have not found answers in the literature to these questions. Our framework therefore offers a first attempt to incorporate indicators in the fields where current literature on greenwashing has not included guidance on specific themes, issues, or organisations.

In addition, we have not found any attempt in the academic literature to give weights to the different indicators in greenwashing frameworks. One option is to choose core indicators which could be weighted more heavily than other indicators. Another option to avoid the weighting of indicators (which is prone to subjective judgment) is to give each question a point and include more questions in some themes than in others. This would mean that some themes have greater value in the potential overall score that results by virtue of their multiple assessment dimensions. However, which themes weigh more is also a subjective decision. A final option is to agree on themes having equal weight, meaning that the weight of indicator questions is different depending on the number of

questions within one theme. One of the disadvantages of this last option is that themes like outright 'lying' do not have a stronger moral weight than simply using 'jargon' or 'misleading symbols' in communication. This makes equal weighting of themes difficult to justify. However, it is similarly difficult to give more weight to themes with more questions, when for example out-right lying is captured with a single indicator. Because of the lack of any attempt to assign weight to the different indicators in greenwashing literature, and the subjectivity that is needed to decide on various weights, we have decided not to assign any score or weight to the different indicators and themes.

Finally, no literature was found with proposed methods for accounting for the different degree or severity of the potential impact of greenwash. This is important in that greenwashing can have different impacts depending on the type, scope, and severity of the application. For example, deflecting the serious consequences of fossil fuels on climate change through influence peddling and denial seems far more severe in scope than simply using a green image in a magazine ad. The results of greenwashing remain the same, however. Our framework can be applied to real cases to pinpoint the obvious and likely greenwashing, as well as to offer a tool that can help an actor to more robustly communicate positive actions taken while avoiding any shade of greenwashing.

4. Discussion: How to Use the Framework

The framework is intended to be an operational tool, not just an academic exercise. It can be used as a tool by organisations as a guide to communicating environmental claims while avoiding greenwashing, and by users more widely to distinguish genuine green claims from false and misleading statements. It can be a useful tool for activists, NGOs, journalists, researchers, policymakers or others who want to systematically assess an organisation's claims for potential greenwashing within a unified and consistent analysis framework. Some claims might intuitively seem like greenwashing, but one might not know how to rigorously assess whether they are or not. This framework provides a structured way to ask questions about the different varieties of greenwashing to evaluate whether the organisation under assessment could be considered as engaging in greenwashing or not. It is not meant as a framework to benchmark organisations, but simply to analyse whether they are involved in greenwashing.

The way to use this framework is therefore quite straightforward: one needs to find a claim that is potentially a greenwash and check it against the list of indicator questions contained in the framework. Some questions will be irrelevant to the claim, in which case they can be ignored. Others may not be known or publicly available to the person doing the assessment (e.g., the marketing budget of a corporation) and thus these questions can be answered with an 'unknown'. Often, various sources need to be consulted in order to answer questions, including the organisation's own website, social media, ads in radio/TV/print, as well as recent sustainability or annual reports and financial statements. In the end, if there is any question answered with a 'yes' in the framework the organisation is already to some extent involved in greenwashing. As mentioned above, the framework is not meant to analyse the degree of greenwashing-hence if the questions (even if some of them) within a theme/variety of greenwashing is answered affirmatively (so the claim is a greenwash according to some indicator questions), the organisation already has fallen prey to greenwashing. Finally, some questions cannot be answered with a straightforward yes/no, thus an in-between answer, with the response 'likely greenwash' has been incorporated to better account for such situations and highlight areas needing additional research or scrutiny.

This framework provides a comprehensive tool for evaluating the environmental claims of organisations. It is intended to be used to evaluate specific claims and therefore has limited usefulness to questions of societal level systems and structures. For instance, the greenwashing framework does not address questions of economic growth and overconsumption, product quality, labour, inequality, or social justice. Likewise, this assessment tool does not account for different sizes of organisations, particularly small organisations,

and their differing material abilities. Nor does it address broader questions about the usefulness of certification schemes, which must be assessed on their own merits. This framework is best used to assess the public environmental claims made by organisations and uncover lies, half-truths, and misleading claims.

The tool is also meant to be a dynamic, living framework that needs to be fine-tuned and revised regularly as more and more claims are being tested. It cannot be a one-time product but needs to evolve alongside various environmental communication strategies and practices. Thus, the authors of this paper, as members of the CSSN Working Group on Spinning Climate Change, would like to regularly adapt the framework as more claims are being tested.

5. Conclusions

This paper presents an integrated framework to support avoiding greenwashing by actors of any kind, including corporations, governments, and other organisations. The framework collects in one set of greenwashing themes a broader range of indicators linked to possible sources of greenwashing and could support effective sustainability policies and genuine green marketing and communication strategies at the level of any organisation. In addition, it may also be used by others wishing to hold various actors accountable for the claims they make. In this regard, the framework can be seen as a monitoring tool of sorts by academics, activists, or consumers, among others, who are interested in better understanding the practice of greenwashing and informing stakeholders of the practice. Scoring of different greenwashing indicators has so far not been attempted in literature. However, greenwashing can already be identified when an indicator question is answered with a ‘yes’. Zanasi et al. [24] pointed out that further studies are necessary to weigh the different green marketing and greenwashing indicators in order to understand their relevance in contributing to the overall level of correct communication. Since such studies are currently lacking, this paper focussed on (a) defining the different varieties of greenwashing by different actors that have been mentioned in the academic literature, and (b) presenting a tool to support the assessment of diverse green claims by any actor. This framework potentially provides a useful basis for a numerical greenwashing index—used internally or externally—to better understand the degree of greenwashing in various cases. Furthermore, the phrasing of the different greenwashing indicator questions, as well as fine-tuning the various answers, could be improved by testing the framework on different green claims.

Persistent vigilance, especially of the fossil fuel industries and those relying heavily on the use of fossil fuels (e.g., transport, construction, utilities, mining and processing, manufacturing, agriculture, fashion, etc.) is essential to closely scrutinise messages and call into question blatant misinformation [27]. In the era of “alternative facts”, there is a pressing need for regulation of claims and accountability regarding science versus “fake solutions” on environmental issues. Social movements and NGOs play a role in this, but there is also an important place for the news media and government agencies to contribute. This framework offers a mechanism to develop a solid evidence base for identifying greenwashing not just of corporations, but of ill-designed government policies, of certification schemes giving credibility to business-as-usual practices, and of any other actors claiming exaggerated environmental benefits. Close scrutiny is especially needed now in the rush to tackle the climate and biodiversity crises in which we find ourselves.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/su14084431/s1>, Table S1: Integrated Framework of Greenwashing.

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Appendix A. Collection of Greenwashing Definitions

Definition
“The act of disseminating disinformation to consumers regarding the environmental practices of a company or the environmental benefits of a product or service” [31], p. 424.
“Greenwashing refers to the practice of falsely promoting an organisation’s environmental efforts or spending more resources to promote the organisation as green than are spent to actually engage in environmentally sound practices. Thus, greenwashing is the dissemination of false or deceptive information regarding an organisation’s environmental strategies, goals, motivations, and actions” [41].
“Disinformation disseminated by an organisation so as to present an environmentally responsible public image” [40].
“Greenwashing is when a company or organisation spends more time and money on marketing themselves as environmentally friendly than on minimizing their environmental impact. It is a deceitful advertising gimmick intended to mislead consumers who prefer to buy goods and services from environmentally conscious brands” [37].
“(1) The phenomenon of socially and environmentally destructive corporations attempting to preserve and expand their markets by posing as friends of the environment and leaders in the struggle to eradicate poverty. (2) Environmental whitewash. (3) Any attempt to brainwash consumers or policy makers into believing polluting mega-corporations are the key to environmentally sound sustainable development (4) Hogwash [39].
“greenwashing is taken to mean two main things. It can be when companies—usually mega corporations and sometimes politicians—try to hide or cover up their less-than-stellar environmental records with a grand, public gesture towards green causes the other type of greenwashing is where companies and brands use words like ‘green’, ‘sustainable’, ‘eco-friendly’, or ‘vegan’ simply as a marketing ploy, without any deep interrogation over what those terms actually mean. And crucially-without any accountability for their actions” [38].
The authors note two different major classifications of greenwashing, including “product/service level claim greenwashing, which uses textual arguments that explicitly or implicitly refer to the ecological benefits of a product or service to create a misleading environmental claim” [13:7] while “executional greenwashing suggests nature-evoking elements such as images using colors (e.g., green, blue) or sounds (e.g., sea, birds). Backgrounds representing natural landscapes (e.g., mountains, forests, oceans), or pictures of endangered animal species (e.g., pandas dolphins) or renewable sources of energy (e.g., wind, waterfalls) are examples of executional nature-evoking elements” [13], p. 10.
“the act of misleading consumers regarding the environmental practices of organisations (firm-level greenwashing) or the environmental benefits of a product or service (product-level greenwashing)” [32], p. 66.
“Greenwashing is the process by which organisations spread misleading perceptions about their products or services that suggest they are more environmentally responsible than is the reality. The practice of greenwashing is used regularly by corporations, governments, and other entities to deceive the public into believing that they are doing more for the environment than they truly are in order to gain better public perception” [35].
“Greenwashing is used to describe the practice of companies launching adverts, campaigns, products etc. under the pretence that they are environmentally beneficial, often in contradiction to their environmental and sustainability record in general” [19].

Definition

“The expressions ‘environmental claims’ and ‘green claims’ refer to the practice of suggesting or otherwise creating the impression (in a commercial communication, marketing or advertising) that a good or a service has a positive or no impact on the environment or is less damaging to the environment than competing goods or services. This may be due to its composition, how it has been manufactured or produced, how it can be disposed of and the reduction in energy or pollution expected from its use. When such claims are not true or cannot be verified, this practice is often called ‘greenwashing’. ‘Greenwashing’ can relate to all forms of business- to-consumer commercial practices concerning the environmental attributes of goods or services. According to the circumstances, this can include all types of statements, information, symbols, logos, graphics and brand names, and their interplay with colours, on packaging, labelling, advertising, in all media (including websites) and made by any organisation, if it qualifies as a “trader” and engages in commercial practices towards consumers” [3], p. 95.

“Greenwashing is the process of conveying a false impression or providing misleading information about how a company’s products are more environmentally sound. Greenwashing is considered an unsubstantiated claim to deceive consumers into believing that a company’s products are environmentally friendly” [43].

“greenwash can be characterized as the selective disclosure of positive information about a company’s environmental or social performance, while withholding negative information on these dimensions” [33], p. 5.

“the word greenwash is used to cover any communication that misleads people into adopting overly positive beliefs about an organisation’s environmental performance, practices, or products the important phenomenon of misleading environmental communication” [11], p. 226.

“Greenwashing is the practice of promoting environmentally friendly programs to deflect attention from an organisation’s environmentally unfriendly or less savory activities” [34], p. 19.

Focus on “executional greenwashing whereby nature-evoking elements in the ad execution may induce false perceptions of a brand’s greenness, whether intentionally or not on the part of the advertiser” [25], p. 108.

“Greenwashing is the unjustified appropriation of environmental virtue by a company, an industry, a government, a politician or even a non-government organisation to create a pro-environmental image, sell a product or a policy, or to try and rehabilitate their standing with the public and decision makers after being embroiled in controversy” [18].

“The act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service” [48].

“Communication that misleads people (e.g., consumers and stakeholders) regarding environmental performance/benefits by disclosing negative information and disseminating positive information about an organisation, service, or product” [49], pp. 372–373.

“Greenwashing is the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service” [42].

“The practice of advertising a product or process as “green” or environmentally friendly, when the product really is not, or does not achieve the advertised marketing claims. A false or misleading picture of environmental friendliness used to conceal or obscure damaging activities” [36].

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