The Eco Lie We Bought: Iron Straws and the Performance of Sustainability

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Abstract. The discourse on environmental sustainability has increasingly been shaped by capitalist narratives that repackage ecological responsibility into consumable commodities. One prominent example is the widespread promotion of the iron straw as a symbol of eco-conscious living. Marketed as an alternative to single-use plastics, the iron straw represents more than a practical too to embodies the propaganda of environmental capitalism, where systemic ecological crises are reduced to individualized consumer choices. This study critically examines how the iron straw functions as a cultural and economic product that shifts the burden of responsibility from industries and governments to individuals. By analyzing its symbolism, marketing strategies, and reception within global environmental movements, this paper reveals that the iron straw's popularity reflects the commodification of sustainability, creating a paradox where consumption is framed as the primary path to ecological salvation. The findings highlight the limitations of such consumer-driven solutions, urging a reorientation toward structural policy reforms and collective actions that address environmental degradation at its roots. Ultimately, this research argues that while the iron straw may raise environmental awareness, it simultaneously risks perpetuating a superficial form of "green capitalism" that obscures deeper socio-political dimensions of ecological justice.

1 Introduction

Nature is part of the earth which is the source of life for all living creatures, including humans. Humans process nature with their tools so that they can produce to survive. With increasing production capabilities, the ability of humans to conquer nature will also increase. Human life cannot be separated from nature due to the large influence of humans on nature[1]. It is emphasized that maintaining a balance is essential to allow nature to sustain its own regenerative processes while also fulfilling the needs of other living beings. How can nature continue to be sustainable, while basically, eventually nature itself will surely experience a decrease in quality? Nature, at one point, will no longer be able to withstand the cohesiveness of the earth because nature is a part of the earth that moves so that everything on earth, including nature, also moves. This motion of natural law is slow, can be millions of years, following the age of the earth. However, due to human activities,

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the earth is rapidly undergoing change, since nature has been exploited and turned into a commodity for the purpose of economic growth.

In a world society where social relations are determined by ownership of the means of production, production of goods (and services) there will be no social control. The abundance of the production of human labor managing nature is not devoted to the prosperity and progress of the majority of people and to preserve the natural support of nature, but rather to sustain the mere accumulation of profits [3]. Therefore, it is not surprising, in such a system, no matter how advanced the knowledge and tools of human work have nothing to do with the equitable distribution of welfare and sustainability of the life of the earth. That is a major humanitarian disaster in a current system of capitalism society. It is argued that a small number of powerful capital owners and large corporations tend to prioritize profit accumulation and capital expansion through the exploitation of natural resources, showing little concern for environmental balance. Their primary focus is on maximizing production, regardless of whether such production aligns with societal needs or the planet's ecological capacity, even if it ultimately endangers the sustainability of the natural environment. That is the fundamental consequence of the current capitalism system, the main cause of natural destruction.

The dialectical process of the conquest of man on nature depends on the level of development of the productive forces (humans and their work tools), the character of the social system, and the level of development of society and humans themselves. The more advanced the tools of human labor, the greater the possibility of natural conquest, the greater the potential for destruction. Destruction or preservation of nature is a choice that can only occur in the character of certain economic systems and social relations. Therefore, capitalism is an economic and social relationship that enables environmental destruction to occur massively and quickly [5]. However, the development of knowledge and technology in capitalism, at the same time, gives humans the possibility to develop all their creativity to repair the damage to nature.

The identification and recognition of the environmental crisis have been ongoing for the last thirty years. The ongoing crisis can be seen from the rapid climate change due to global warming and the increasing greenhouse effect and the most CO2 gas pollution produced by the use of fossil fuels. Factory activities, machinery, and transportation equipment currently produced are the biggest contributors to CO2. According to research, environmental damage and pollution in the last 30 years far exceeds the environmental damage caused by human activities over thousands of years ago, one example that occurred in Indonesia such as the rate of forest destruction in the 1980s era was around one million hectares/ year, then in the early 1990s the level of damage was 1.7 million hectares/ year. Then, since 1996 it has increased again to an average of two million hectares/ year (2001 data). Degraded and deforested forests in Indonesia are in Sumatra (5.8 million hectares and 3.2 million hectares); in Kalimantan (degradation of 20.5 million hectares and defecation of 4.3 million hectares); in Sulawesi (degradation of two million hectares and deforested 203,000 hectares); in Nusa Tenggara (degradation of 74,100 hectares and deforested 685 hectares); in Papua (degradation of 10.3 million hectares and deforested 1.1 million hectares); and in Maluku (degradation of 2.7 million hectares and defecation of 101,200 hectares). Especially with the rapid development of the market due to neoliberal policies promoted by all economic instruments of capitalism, specifically the WTO [1], IMF [4], ADB [2] and the World Bank, as well as various free trade agreements for more than a decade, which were legitimized by regime investment without thinking. The pursuit of profit and capital accumulation through intensified exploitation of both humans and nature leads to the phenomenon of capitalist overproduction.

Furthermore, the data from the Ministry of Forestry recorded that forest damage until 2009 reached more than 1.08 million hectares per year decreased from the forest

destruction based on the previous year data which reached more than 2 million hectares per year. Kalimantan is one of the regions that has the largest natural forests. In 2007, in the State of the world's forests report, the Food and Agricultural Organization (FAO) put Indonesia in 8th place out of the ten countries with the largest natural forest area in the world. However, the rate of forest destruction in Indonesia reached 1.87 million hectares over the period 2000-2005, resulting in Indonesia ranked 2nd out often countries with the highest damage in the world. Globally, forest destruction also has an economic impact. A study at the World Resource Institute shows that the economic growth of Indonesia has declined by 40-60%. If calculated based on money losses arising from the environmental sector for 30 years. The pattern of development in Indonesia so far have been the exploitation of the forestry sector for the business of oil palm, paper and pulp, mining, and so on. Economic growth means an increase in consumption and production of industrial commodities without future consideration. Consequently, this pattern renders nature increasingly incapable of supporting human life in the future.In fact, environmental activists state that, in order to restore the natural conditions to normal, it requires zero percent economic growth, otherwise known as zero growth. Capitalists with exploitative character will not be able to have a good impact on the natural problems on this earth, and instead become victims are the working class and other oppressed people who are increasingly exploited [9]. However, the formation of public opinion was destroyed after economic losses and casualties emerged from the people of the United States itself. On the other hand the mass media are relatively ineffective when forming public opinion regarding domestic policies in the United States. Policies that affect the daily socio-economic life of the American people [2].

The capital owners cannot continue to deceive or build the image that welfare has been generated everywhere while there is still a lot of edema and malnutrition. This was also shown in the latest poll in the United States after the Boston Bombing. Sixty-five percent of Americans are more worried about civil liberties that will be increasingly constrained after the Boston Bombing rather than the threat of terrorism itself.[4] It seems that the American people have learned from how the media drove them after the September 11 Incident to justify the invasion of Iraq and Afghanistan. Likewise, the policies of the capital owners who only benefit themselves above the exploitation of the workers and the people will certainly produce resistance. Resistance which will then weaken the ideological hegemony of the mainstream mass media. Resistance and growing power of the workers and the people will create a filter against the mass media propaganda. And even led to rejection of the mass media who took the position to support the policies of the capital owners. This also happened in Jakarta with the emergence of Marsinah FM Radio which is managed by the workers themselves, specifically those who are members of the FBLP (Inter-Factory Labor Forum). Likewise, now many websites, blogs or alternative publications are popping up, especially from the labor movement that will oppose the hegemony of capital owners. In Venezuela itself, over the last ten years hundreds of radio and television stations have been built by groups or people's organizations. Unlike the mainstream mass media, alternative mass media are not based on the interests of profit and 70 percent of their broadcasts focus on people's and local issues.

2 Methods

This study employs a qualitative content analysis combined with critical discourse analysis (CDA) to examine how the narrative of “eco-friendly” consumption—particularly through the promotion of metal or reusable straws functions as a performative act of sustainability rather than a substantive environmental solution. Primary data are drawn from social media campaigns, advertisements, and influencer posts between 2018 and 2024 that popularized

"iron straws" as eco-symbols. Supplementary materials include news articles, government sustainability reports, and corporate environmental statements. The data are coded thematically to identify recurring patterns of moral signaling, consumer guilt alleviation, and greenwashing rhetoric. CDA is then applied to uncover how language, imagery, and digital activism construct a sense of individual virtue that obscures systemic environmental issues such as industrial pollution and corporate responsibility. The analysis emphasizes the socio-cultural and psychological mechanisms by which "eco-performance" sustains neoliberal consumerism. Through triangulation of digital content, corporate communication, and academic literature, this method allows for a critical interrogation of sustainability as spectacle revealing how symbolic gestures like iron straws become cultural artifacts of environmental performativity rather than instruments of ecological change.

3 Results and Discussion

Based on data collected by "Divers Clean Action", an LSM (Civil Society Organization) consisting of a young community that focuses on marine waste issues - in Indonesia every day uses at least 93 million plastic straws, which if not recycled will pollute the environment. Until now, there are still many parties who are less concerned with plastic straw waste. To start raising awareness and educating the public about the dangers of plastic waste straws for the environment, one fast food restaurant, McDonald's, Indonesia launched the movement of #Living without Straw on November 12, 2018. Associate Director of Communication at McDonald's Indonesia Sutji Lantyka said that now, at 190 outlets throughout Indonesia, McDonald's has no longer provided plastic straw dispensers. However, there are still a few drinks at McDonald's Indonesia that still use straws, and if there are consumers who want to use straws can ask the staff at the restaurant.

However, is it true that stainless straw is much more environmentally friendly than plastic straw? A research on straws actually says the opposite. Research initiated by Engr308 Technology and Environment and Humboldt State University entitled "HSU Straw Analysis" has the main objective to analyze and compare the effects of various types of straws based on the energy embedded in each type of straw and the resulting carbon dioxide emissions. The objects used in this study consist of 5 types of straws: 3 of them are reuseable (stainless, glass, and bamboo straws); The other 2 were disposable types (plastic straws and paper straws). The results of the study stated that the type of stainless straws - in its manufacture - released the most energy and CO2 emissions compared to other types of straws. Based on the data in the report "HSU Straw Analysis", it can be concluded that the stainless type straws emit the most energy in its manufacture of 2420 kJ, followed by glass straws (1074 kJ), bamboo straws (756 kJ), plastic straws (23.7 kJ) and paper straws (16 kJ). This is directly proportional to the gas emissions produced where stainless straws still occupy the highest position with the number 217 gCO2, underneath there are glass straws (65.2 gCO2), bamboo straws (38.8 gCO2), plastic straws (1.46 gCO2) , and paper straws (1.38 gCO2).

In the case study at Humboldt State University, it is assumed that the use of disposable straw used in a day is 1000 with the number of active days on campus as much as 146 days per year. In addition, it is also assumed that there are 3500 students on campus per year (this number does not include lecturers, staff, and other workers). The second sequence is occupied by plastic straws (3,968 MJ), and followed by glass straws (3,869 MJ), bamboo straws (2.64 MJ), and finally paper straws (2,197 MJ). It can be concluded that stainless straws are not the right solution to replace plastic straws in daily life. This is caused by the amount of energy in the manufacturing process, also the amount of CO2 emissions that it generates. Stainless straws have a very large difference in both aspects when compared with other types of straws.

Paper straws can be considered because although carbon dioxide emissions are more than bamboo straws (around 65.435 gCO2), they store the least energy among the four other types of straws (the difference with bamboo is 0.443 MJ or around 443 kJ). In addition, paper straws are more easily biodegradable than plastic straws, thus potentially reducing pollution at sea. However, still paper straws save energy and produce substantial carbon dioxide emissions in large quantities. Its use will also continue to produce waste, even though its effects on the marine ecosystem are not as large as plastic straws [10]. This issue highlights the crucial importance of the environmental protection principles outlined in national and international regulations [7]. Plastic straw waste, as one type of single-use plastic waste that is difficult to decompose because it takes hundreds of years to degrade significantly, accumulates in marine and coastal waters, contributing to marine pollution that threatens the sustainability of marine habitats and biodiversity, such as coral reefs, fish, turtles, and various other marine organisms that often mistake plastic for food, leading to injury and death [8].

Environmental law views this pollution as a violation to environment[9]. Plastic straw waste in ocean also creates microplastics that disrupting our health[10]. From an environmental law perspective, the campaign to reduce plastic straw use is part of the implementation of the precautionary principle and the polluter pays principle, which requires polluters to bear the cost of environmental restoration [11]. Therefore, environmental law not only regulates sanctions and waste management but also encourages the active participation of various parties through collaboration between the government, community, and private sector in the sustainable management of marine resources [12].

The campaign to use metal straws as a substitute for plastic straws is often associated with environmental issues to reduce plastic waste and pollution, but behind it lies an element of capitalism inherent in its implementation [13]. First, iron straws, as an alternative product, are typically produced and commercialized by companies that rely on free market principles, where profit is the primary goal [14]. Second, the marketing of iron straws is often done with branding and lifestyle strategies that emphasize social status, positioning the use of iron straws as a symbol of environmentally conscious consumers who can also afford exclusive products, thus creating a market based on consumer values and social class differentiation [15]. Third, this campaign often involves large companies or startups that integrate production, distribution, and promotion. Fourth, although the campaign's goal is to reduce plastic waste,It is suggested that the production of iron straws still depends on natural resource extraction and industrial manufacturing, both of which add to the overall carbon footprint, indicating that ecological capitalism continues to operate through profit-driven production systems that often overlook environmental consequences. Therefore, the iron straw campaign not only speaks to environmental sustainability but also shows how capitalism permeates the green lifestyle movement as a business opportunity with significant economic gains, while simultaneously reproducing consumption and production dynamics that prioritize capital accumulation within the modern market system. In the context of the iron straw campaign, this product is not only an environmentally friendly alternative but also a commodity produced and distributed within a free market system. Meanwhile, according to Adam Smith, capitalism allows individuals or entrepreneurs to utilize economic freedom to create wealth and prosperity through competitive markets [7].

In this case, green capitalism accommodates market needs with "green products" strategically packaged in marketing to foster new consumption, rather than fundamentally changing the production structure that causes environmental damage. Thus, the iron straw campaign is not only about reducing plastic waste, but also reflects modern capitalism's exploitation of environmental issues to maintain capital accumulation mechanisms by creating new consumer needs in the green market. This aligns with Marx's idea of how the

mechanisms of capitalism exploit every production opportunity for profit, and Adam Smith's view of market freedom, which also becomes a business opportunity for environmentally friendly producers.

4 Conclusion

Awareness is important so that environmental problems are not always separated from social, political and economic problems. The people need to understand that the greed of the oppressor system today is the main cause of environmental damage Regarding the replacement of this greedy capitalism system, the principles of socialism as a form of radical economic reorganization and production which serve the needs and are controlled and carried out by the majority of the people, are the right solution. But we must also not close our eyes at the same time learn from the failures of socialism in the past that did not take into account the environmental impact of economic planning activities. From now on, the environment is as important as humanity. On this basis, the discourse of eco-socialism began to be rife with the left as one of the characteristics of socialism in the 21st century. We want nature to be managed in a democratic, not anarchist way, simply to pursue growth and multiply profits. When nature is preserved democratically, it is not only a handful of people who benefit, but all of humanity, our future generations, and our children and grandchildren.

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