




Socio-Environmental Complexities of the Global South: a Historical, Decolonial, Eco-Socialist and a Freirean Environmental Educational View

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ABSTRACT

This paper aims to analyze contemporary socio-environmental complexities, such as climate change and the increasing socio-environmental impacts on different social classes. Moreover, it addresses the systematic way in which the Global North exploits natural and human resources, which oppresses the populations of the Global South, increasing social inequality and potentiating the climate crisis. The historical context of environmental degradation is a key driver of the analysis, aligned with the perceived idealization of infinite economic development, which shapes the capitalist system's exacerbated productivism and industrial development in order to expand its profit through increased consumption and perpetuate inequality. By raising fundamental questions in the context of the climate crisis, which disproportionately affects the populations of Global South countries, –whether in the realization of environmental disasters or the recovery time after a catastrophe—we seek to analyze how the organizational logic of asymmetry between Global North-South countries is driven by years of colonization and imperialism. And we present, as options in the attempt to break with this unsustainable system, eco-socialism and Freirean environmental education.

Keywords: climate change, imperialism, eco-socialism, environmental education

INTRODUCTION

The world is at the same time so simple and so complex that it becomes practically impossible to follow a single line of reasoning to try to understand it. Simple because we have an economic system that manages all humanity, capable of generating many wars for its maintenance. Besides wars, the system already serves to go against humanity itself and we are hostages of a logic in which there is an excess of food for some, who become rubbish, and a lack of food for others, which leads to death by starvation.

But the world is so complex, because there is a human complexity—individual and collective—and of relationship with the other living beings and the other telluric elements, that it becomes difficult to establish a simple, liquid and certain linearity to be able to explain how we arrived at the system that today governs the world and causes such great disparities with regard to the quality of life.

In a way, this text that we present here is also simple and complex. Simple, because we want to reveal other possible faces to the system, decolonizing it, making it more sustainable from the point of view of preserving the life of all species; including ours. Complex, because explaining all this

is not an exercise that can be solved by punctuating something here or there in history or in the present time, because the industrial, imperialist and neoliberal capitalism that commands the world has become a gordian knot. It is not known how we got to it and, worse, how to untie it. Thus, this article was written to promote a reflective analysis of contemporary socio-environmental complexities, such as climate change and the growing socio-environmental impacts on different social classes. Furthermore, the systematic manner in which the exploitation of natural and human resources occurs on the part of the Global North, which oppresses the populations of the Global South, is addressed, from the historical period of colonization, in the industrial revolutions, in the financing of business-military dictatorships, with imperialism or in the context of a globalized world that needs natural resources for the manufacture of more and more products. All this increases social inequality in underdeveloped countries.

The historical context of environmental degradation is a fundamental driver of the analysis, aligned with the perception of the idealization of infinite economic development, which shapes the exacerbated productivism of the capitalist system, and industrial development, directly interconnected. As a

result of the logic that seeks ever more profit, neoliberal austerity policies drive the precariousness of working conditions, reducing public investment in fundamental sectors for the development of a society's quality of life, with the justification of the need to contain spending. All this becomes a considerable basis for countries that already experience conditions of social inequality, as they are less prepared for the consequences of current climate change, resulting in a deep socio-environmental crisis that grows stronger every day, bringing with it alarming consequences.

This paper was conducted as a qualitative research, aiming to explore bibliographic sources that portray how environmental degradation affects social classes in different ways, precisely because of the consequences of imperialistic policies, with colonial roots, which are still present today.

A fundamental factor in the reflection on what occurs in terms of economic policy connections and environmental degradation is the logic of greenwashing, driven by companies that harm the environment, but sponsor international conferences on environmental preservation, as is the case of COP 26, the United Nations Conference on Climate Change, held in November 2021, in Glasgow, Scotland. These companies, public or private, often with high rates of greenhouse gas emissions, based in countries that are also historically large emitters, portray how environmental issues are within a thin rhetorical veil of preservation. However, even if the aim of COP 26 is the creation and expansion of environmental preservation policies, based on an international alliance, it is clear that the conference was not concerned with presenting its sponsors in a coherent way. Thus, they used the conference to propagate, through capitalist propaganda moulds, the false image of a sustainable corporation, perpetuating greenwashing.

As explained by Faé and Sansoni (2022), the conference had multinational sponsors such as Unilever, present in the ranking of the most polluting companies in the world, from its plastic generation; SSE, of energy, which is on the podium of the list of companies that emit greenhouse gases in Scotland, according to the Scottish Environmental Protection Agency; and Jaguar Land Rover, appointed by the International Council for Clean Transportation as one of the worst companies in ecological scope. In addition, ScottishPower/Iberdrola, Hitachi and Reckitt also comprise this list, major emitters of greenhouse gases.

Nevertheless, this idea of making use of environmental causes as advertising is not new, in which large corporations use "green marketing" as a means of improving their image before public opinion, as previously noted (Fortunato & Penteado, 2011). Thus, they create a veil of sustainability and environmental conservation, obscuring all soil, water and air contamination, in addition to the exploitation of human labor required for the maintenance of its production chain.

The degradation of the ecosystem is expressed by the growing deterioration and depletion of non-renewable natural resources and by the diverse pollution of the atmosphere, the soil and the water. To this converges global warming linked to emissions of gases that produce the "greenhouse effect", associated with the model of industrial development and consumerism (the productive/destructive chain, of mutual

actions of the parts on the whole and the whole on the parts) that are guided by the profitability of capital, supported by the ideology that the "growth of production and consumption" would benefit in the long term the improvement of the welfare of all humanity" (Petry, 2008, p. 2). That said, our aim in this paper is to critically address the complexities of the current socio-environmental crisis in the world, driven by imperialist policies. Such complexities clearly spell out a relationship of neoliberal political-corporatist dominance that favors the Global North and its polluting companies, which exploit natural resources from the countries of the Global South.

To achieve this objective, we have carried out a historical review of the human-nature relationship, with a historical-anthropological background, in a diachronic way, analyzing the relations of time and space within historical periods, and the relations of production of societies within the respective short-times and long-times. If we study a subject as complex as climate change in an isolated way, only observing the situation in a specific temporal period, or in a specific geographical space, it becomes more difficult to perceive how the social and economic organization of society has led us to this moment. The process is inseparable from the whole, because the organizational structures of societies, based on their relations with the environment for the production of goods and surplus, are fundamental factors in development. Thus, we can start from the first great civilizations, contextualizing their respective relations with the environment, passing through the period of colonialism and reaching the Anthropocene period. After presenting all the problems, we show the eco-socialism and the Freirean environmental education as pillars in the attempt to mitigate the environmental disasters and the structural change that the system needs.

Therefore, as Brazilians and researchers, we feel obliged to use this writing opportunity for an international journal to portray the reality of the countries of the Global South and show how conditions of inequality, hunger and environmental degradation are directly interconnected with the colonial past and the imperialist logic of the countries of the Global North.

A BRIEF HISTORICAL CONTEXTUALIZATION: THE PATH TAKEN BY HUMAN INTERVENTION IN NATURE

Human interference in nature has been intensifying since the human being became sedentary, with the discovery of agriculture, only increasing in volume and scale, as the development of civilizations (Mottl et al., 2021) until the complex world of almost eight billion inhabitants in 2022. From the construction of organizational, hierarchical, military and economic models of society, which resulted in the formation of large settlements, it became necessary for humanity to increasingly enter the natural space, aggressively, and use natural resources to generate surplus. These processes resulted in the materialization of environmental crises that ended up negatively affecting various civilizations, as exemplified by the Mayas in pre-Columbian America, the Greeks, as indicated by Plato and Aristotle, etc.

According to Tainter (2006), Aristotle already warned about the possible problems that would materialize in the Greek civilization if excessive wood extraction conditions were not ceased or reduced. Therefore, the importance of preserving forests was already an agenda analyzed by intellectuals in ancient times, as it was a fundamental factor for the existence of the State itself. Also, the philosopher influenced creation of laws to protect forests and regulate the use of wood in ancient Greece, in an attempt to warn about the risks of scarcity.

As humanity developed socially and technologically, various forms of progress emerged, requiring the transformation and replacement of natural spaces for the development of civilizations, damaging natural sustainability. It can be said that all this began with the purpose of improving the quality of human life and an ideal that humanity should enjoy the natural world and that it would be unlimited, because its cycles would always be renewing the environment. However, as time went by, human domination of nature became aimed at increasing profits, creating and diversifying new market sectors, strengthening the State and seeking cultural hegemony. By adding a new form of social and economic organization with the strengthening of technologies, the beginning of colonization became possible, with the use of slavery methods to sustain the base of colonial trade, which was based on the conquest of distinct lands in order to perpetuate the European hegemony in the world, based on the commodification of nature, which resulted in the strengthening of environmental destruction.

Therefore, it is essential to understand, in the history of humanity, the intrinsic relationship between human beings and nature, and the processes of degradation of the conditions of survival of both, through the capture of natural resources. These resources served as justification for the expansion of European colonization: a fundamental factor for the economic development of the countries of the Global North. Frank (1970), based on the Argentine intellectual Aldo Ferrer, makes the following observation on the structural role of nature and its resources in the colonial process:

Mining, tropical agriculture, fishing, hunting and logging (all a direct function of exploitation) were the industries that developed in the colonial economies and therefore those that attracted the available financial and labor resources.... The groups with interests in export activities were high-income merchants and landowners and senior crown and church officials. These sectors of the population... constituted the colonial domestic market and the source of capital accumulation.... As the concentration of wealth grew in the hands of a small group of influential landowners, merchants and politicians, the propensity to obtain manufactured consumer goods abroad increased... (p. 235).

The case of Brazil serves as an example. The process of colonial environmental degradation already starts from the exploitation of pau-brazil (*paubrasilia echinata*), a typical tree belonging to the Atlantic Forest, considered its extraction the first economic activity by Portuguese in America, in the 16th century (Neto et al., 2018). Whether in the production of objects or the resin from the wood with the aim of producing

dyes to dye fabrics, the tree was seen only as an engine of economic growth and almost went into extinction. Still, it is fundamental to correlate ecological degradation with human degradation, as all Brazilian economic cycles in history (pau-brazil, sugar, gold, cotton, coffee, etc.) were driven by the forced labor of people, including native peoples, enslaved blacks, and/or immigrants.

It is important to note that territories belonging to what today we call the Global North began their industrialization process—a period in which the exponentiation of human interference in nature becomes perceptible—earlier than those belonging to the Global South. However, this is not a coincidence. It is precisely because of the decades and centuries of human and natural exploitation in the countries of the Global South, with the aim of obtaining more and more natural resources for the intensification of European market sectors, that the industrial and economic development in the countries of the Global North was possible. The resources acquired on a massive scale in various colonies drove and propelled industrialization. This results, in general, in a civilizational discrepancy between countries in geopolitical sphere, which crosses centuries, whether in the economic, social, political, industrial, health and/or cultural sphere.

Also, according to Neto et al. (2018), the late abolition of slavery in Brazil, which occurred in 1888, coincided with the industrialization process, a moment when immigrants entered the Brazilian territory in search of work. Shortly after that, the First World War began, which brought refugees both to Brazilian territory and to other countries in Latin America and around the world. This situation of extermination and deterioration of human and natural conditions of survival, in European and non-European territory, intensified with the Second World War. Still in relation to the Brazilian reality, the case of the Rubber Soldiers exemplifies well this connection presented above, between industrial development and environmental degradation. Several men were sent to the Amazon to extract rubber for the United States. Thousands of soldiers died in the rubber plantations because of malaria and hunger, and they were not protected by any kind of labor law. They were merely the object of the war industrial demand of the United States:

During the Estado Novo, in the context of the “Battle of the Rubber”, and as part of the Washington Accords signed with the United States as a result of Brazil’s entry into World War II, the country committed itself to increasing to one hundred thousand tons per year the production of rubber, an essential raw material for the war, whose supply was threatened due to Japanese domination of Malaysia. Responding to the propaganda appeal to produce more rubber for the allies, as true soldiers in the battle for labor, some 50,000 northeastern workers headed, or were directed to the Amazon, mostly to the rubber plantations (Guillen, 2002, p. 73).

The arbitrary political influences of the United States in the stabilization of Latin American military dictatorships during the Cold War period are also observed on a geopolitical and ideological level. More precisely in Brazil, revealing the interference in the degradation of Brazilian ecosystems.

According to Almagro et al. (2021), in a Cold War context, the United States' interest in ideological domination in Brazil had several biases: the size of the country and the high number of inhabitants serve as examples. Still, the exploitation of the resources belonging to the Brazilian forests was an immensely agreeable factor in the political scenario.

After the establishment of the Corporate-Military Dictatorship, Brazil increasingly expanded its servitude to North American interests, which targeted precisely Brazilian natural resources in the face of the non-existence of environmental regulations. During the Stockholm Conference, held in 1972, the country declared its lack of interest in reducing the generation of pollutants. The Brazilian representation at the Conference contemplated the words of the then Minister of the Interior of Brazil, José Costa Cavalcanti, who portrayed: "Develop first and pay the costs of pollution later" (Goldenberg, 1997 as cited in Ziober and Zarinato, 2014, p. 62). Going further, an extended banner further strengthened the Brazilian position in the face of global concern over pollution:

Welcome to pollution, we are open to it. Brazil is a country that has no restrictions. We have several cities that would welcome your pollution with open arms, because what we want are jobs, are dollars for our development, because we want jobs and dollars for our development (Dias, 1992 as cited in Sossai et al., 1997, p. 126).

After the fall of the Berlin Wall and the declared end of the Cold War, which brought as victor the United States and the capitalist system, production models based on the view of nature as raw material for the expansion of market sectors intensified, as the Western and Eastern fields of geopolitical influence increased. A new world order is then consolidated, increasingly more extractive, with aggressive patterns of drilling and obtaining resources, in accordance with the increase in the demand for merchandise on account of the rise in standard of consumption in certain territories of the globe.

IS THERE A WAY TO STOP IMPERIALISM?

Understanding the process of environmental degradation caused by the incessant search for economic growth is complex. It is important to understand how the imperialist ways of obtaining wealth are still rooted in society today, and cannot be vetoed with simple declarations of independence. In capitalist economies, the influence of the financial market, driven by large conglomerates and multinational private companies from countries in the Global North, is a decisive factor in national strategic decision-making. Therefore, as exemplified in the previous section with the implementation of the Corporate-Military Dictatorship in Brazil, one can see rigorous nature of interference in national sovereignty that a country of the Global North can exercise in a country of the Global South, to maintain and expand its own interests.

Another example that can be addressed, is the interest of large technology companies—based in the Global North—in the mineral wealth found in the Democratic Republic of Congo, causing armed conflicts within the former Belgian colony, the exposure of workers in situations analogous to slavery, the use of children for labor, among other cruel factors that end up subjugating the Congolese, in this example, for the sake of infinite profit (Nakaoshi et al., 2021). Of course, analyzing imperialist relations of production is not something easy. However, it can be said that this has directly impacted the social and economic development of the countries of the Global South, the quality of life, the production and consumption process (which is not equal to the level of the countries of the Global North) and the lack of political autonomy to create developmental models that seek to actually end social inequality and mitigate the commonplace effects of the various capitalist crises.

Even though they possess in their territories various natural resources, used as raw materials in the development of merchandise in the Global North, the countries of the Global South cannot access the various consumer goods that exist in developed countries. Thus, precisely because of the past intervention, it is not possible to require an equal environmental preservation by all countries of the world, as sometimes appears in global reports. This fact seems to be a concern of the great powers. The document released by the UN, which points to the results of COP26, the 26th United Nations Climate Change Conference, shows that there will be economic incentives for the transition from the use of coal as a source of energy to clean energy, in a fair and inclusive way.

However, it is worth mentioning that such economic incentive published in the COP26 Resolution (2021) was deeply criticized by a range of representatives from poorer nations, as previously there was an unfulfilled promise "(...) from rich countries to provide US\$ 100 billion per year by 2020 to help reduce emissions and adapt to the impacts of climate change"¹. It remains, then, to check if in fact such investment will be sufficient for the energy transition in a fair and inclusive way—as described in the final report of the conference itself.

Therefore, by understanding that there is a notorious discrepancy in development between countries that are above when compared to those that are below—whether in the global North-South relationship or even in the oppressor-oppressed relationship—, defending the discourse that these countries do not have the freedom to develop—exploiting nature for this—crosses the boundaries of the ethically incorrect.

We then enter a paradoxical discussion: The countries of the Global North have developed socially and economically from direct interference in the countries of the Global South, historically emitting high levels of greenhouse gases. However, the underdeveloped countries have not, and it is necessary to exploit nature to improve the quality of life of their inhabitants. So, the question arises: Can the world in fact sustain the economic rise of the countries of the Global South to the consumption level of the Global North?

¹ The main points and criticisms of the COP26 outcome document (2021, November 12). *Galileu Magazine*. <https://revistagalileu.globo.com/Ciencia/Meio-Ambiente/noticia/2021/11/os-principais-pontos-e-criticas-ao-rascunho-do-documento-final-da-cop26.html>

We can reflect a little on the enormous energy demand necessary for such an evolution in the quality of life of the people of the Global South. From the most basic activities—such as heating and cooking—to the most complex, such as foreign trade activities like exporting and importing commodities and inputs, driven by the logic of the globalized food system. It is understandable that in order for there to be a real economic strengthening that will bring benefits to those living in underdeveloped countries, the use of various energy sources is necessary. Sachs (2007) says about the sources of energy used for different needs:

Moreover, in the search for solutions, we must not lose sight of the fact that the most serious energy crisis is that of firewood, because it affects the two billion poorest inhabitants of the planet, who have no other source of energy for cooking and heating (...) The low cost of transport combined with wage differences means that strawberries from China and roses from Ecuador arrive by plane in Paris (p. 25).

Presenting, then, the issue of the need to use energy sources for the strengthening of underdeveloped countries, and also making it clear that access to renewable energy sources is still far from being a consistent reality at the level of economic and social transformation of the Global South, can in fact Planet Earth, already quite fragile, sustain the weight of the growth of the oppressed class? What would be the solution to this paradox?

We defend the theory of eco-socialism as a rupture from the productivist organizational moulds of capitalist society. It, very well defined by Löwy (2014), can be a good option for the solution of these questions, without promoting a simplistic reformism. According to the eco-socialist theory, which combines elements of Marxism and ecology, a world guided by capitalist patterns cannot maintain its salubrity and become self-sustaining. Therefore, some necessary factors are advocated: equitable energy transition; massive investment in accessible public transport, so that individuals do not need to have their own means of transport; union of the countries of the Global South to develop their sovereignty; break with the globalized food system, which produces commodities while directly degrading nature, with monocultures and livestock; valuing and investment in family farming, organic, without the use of pesticides, guaranteeing food sovereignty for individuals; expropriation and collectivization of large estates that threaten the rights of indigenous peoples while degrading nature; public policies of nature conservation, through firm and efficient inspection and the distribution of financial resources to environmental preservation NGOs; creation of laws that limit multinational fishing and livestock industries; overcoming neo-extractivist methods through the nationalization of these companies and investments to think

about a transition in this sector, creation of new environmental preservation laws based on the demarcation of indigenous and quilombola territories, etc.

Even so, the deep unequal layers in society show that the high consumption pattern of certain countries ends up affecting the globe as a whole. Therefore, in the development of eco-socialism, as an attempt to break with this productivist system of unbridled consumption, only what is really necessary for human survival would be consumed. And this generates a reflection: How to define what is basic for human existence and well-being? Such doubt is well answered by Löwy (2014):

How can we distinguish authentic needs from artificial and factitious needs? The latter are induced by the system of mental manipulation which is called 'advertising'. An indispensable part of the functioning of the capitalist market, advertising is destined to disappear in a society of transition to socialism, to be replaced by the information provided by consumer associations. The criterion for distinguishing an authentic need from an artificial one is its persistence after the suppression of advertising... (p. 52).

It is worth highlighting the need to also cherish the well-being of those individuals who work with this professional area of advertising, in a possible rupture towards eco-socialism. Moreover, the need for a democratic environmental education, which seeks to bring the historical-economic concepts of civilizational development to the heart of the matter, based on Freire's (1987) theory, is a crucial factor alongside the break from capitalism to eco-socialism.

GLOBAL NORTH-SOUTH: INEQUALITY IN POST-DISASTER RECOVERY

Notoriously, environmental catastrophes have been affecting the Global North for a long time. An example of this is the Dust Bowl that occurred in the United States in the 1930s, which was a sandstorm driven by intense winds, caused by the exuberant increase of land exploitation for cultivation, thus exhausting the vitality of the land and favoring the loss of the topsoil layer, thus materializing erosion and then turning the sweeping of the soil by the winds into a tragic environmental catastrophe. (Lee & Gill, 2015). Even so, nowadays, the reflections of the socio-environmental crisis can also be perceived in the countries of the Global North, although not with the same intensity when compared to the South. We can use as an example the floods observed in China and Europe², as well as the extreme heatwave that deeply affected Canada and the United States³.

² Death toll in Europe floods reaches 170; thousands still missing (2021, July 17). <https://noticias.uol.com.br/internacional/ultimas-noticias/2021/07/17/enchentes-europa-alemanha-belgica.htm> Floods in China affect 1.7 million people, kill 15 and close coal mines (2021, October 12). *Folha de São Paulo*. <https://www1.folha.uol.com.br/mundo/2021/10/enchentes-na-china-afetam-17-milhao-matam-5-pessoas-e-fecham-minas-de-carvao.shtml>

³ Canada: What explains the heat wave related to dozens of sudden deaths in the country (2021, June 30). <https://www.bbc.com/portuguese/internacional-57672256> Bennet, Bridget (2021, July 12). Western U.S. burns up under heat wave; Death Valley reaches 54°C. *CNN Brazil*. <https://www.cnnbrasil.com.br/internacional/oeste-dos-eua-queima-sob-onda-de-calor-vale-da-morte-atinge-54c/>

However, the economic conditions of the countries of the Global North allow for greater ease and speed of recovery after the materialization of a natural disaster, unlike what occurs in underdeveloped countries. When used as an example the earthquake that occurred in January 2010 in Haiti, which reached from 7.0 to 7.3 Mw in magnitude, it is essential to understand the social and economic fragility of the country, compared to the damage suffered (Freitas et al., 2012). The greater the vulnerability, the greater the impact of natural disasters. Exactly because of this one must realize how much more deeply disasters hit the most vulnerable places, when compared to tragedies that occurred in countries of the global North, immensely richer and prepared for these situations:

More than two million people were directly affected by the earthquake, representing 15% of the country's population. According to official reports in January 2011, the number of deaths reached 300,000 and hundreds of thousands more were injured. About 1.3 million people moved into shelters and another 500,000 moved to other areas of Haiti, further exacerbating existing problems of access to food and basic services. Around 105,000 homes were completely destroyed and 208,000 damaged. Around 1,300 educational facilities and more than 84 hospitals and health centres were severely damaged or destroyed. Much of the capital's port was destroyed, as were important government and public administration buildings (Freitas et al., 2012, p. 1580).

The numbers are tragic and reveal some of the difficulties faced by the inhabitants of Haiti in trying to stay alive. When compared to the earthquake that occurred in Southern California in the United States, hitting mainly the city of Ridgecrest in 2019, of magnitude 7.1 Mw, it is possible to see the differences in the effect of the tragedy in the country. Even though there were impacts on buildings, injured people, landslides, cracks in foundations and fires caused by gas leaks⁴, there is no comparison between the two earthquakes, in relation to the reality of each country and the recovery time after a catastrophe.

From contexts of unemployment, or precarious work, hunger, violence, poverty, lack of basic sanitation, education, health, etc., comes the climate crisis as another crisis of the capitalist system, the great crisis of the 21st century. Through a special report produced by the Intergovernmental Panel on Climate Change–IPCC–in the year 2021, under the auspices of the United Nations, the tragic situation in which ecosystems live and the imminent risk of a 1.5°C increase in temperature in relation to the pre-industrial period was made public, faster than imagined. It is as Magalhães et al. (2021) explain:

(...) climate change caused by human actions is irrefutable, irreversible and will worsen in the coming years and decades if nothing is done to change the climate and environmental crisis. The report brings evidence that gas emissions from burning fossil fuels and deforestation are altering the climate and putting

billions of people at risk, which leads to the call for immediate and deep cuts in emissions of pollutants–without which it will not be possible to limit global warming to 1.5°C by 2030 (Magalhães et al., 2021, p. 66).

We then follow our discussion of North-South inequalities and environmental degradation with the idea of an environmental education based on the pedagogical principles of Paulo Freire. His wanderings around the world were always motivated by the battle against oppression, poverty, and injustices. He believed that education was the only way to transform people's lives and that people would be responsible for a better world. We continue with his hope.

FREIREAN ENVIRONMENTAL EDUCATION

After presenting these complex issues, which go through time through historical conflicts, it is necessary to bring, as an attempt to recover natural conditions, a democratic, and critical environmental education, which really explains the problems behind the issue. With this, it is possible to carry out a dialogue with Freire's (1987) thoughts which seek equality, both inside and outside the school environment. The overcoming of school traditionalism, which Freire (1987) refers to as banking education, is fundamental for the promotion of critical thinking. Especially in the context of inequalities and environmental crisis outlined here.

The goal should be to turn, from Freire's (1987) ideas, environmental education into a critical, liberating and political process. After all, "(...) we cannot be satisfied with environmental education that confuses the environment with nature and is satisfied with teaching children to plant beans in cotton to see them germinate (Nakaoshi et al., 2021, p. 118). An example of educational practice that is developed from the Freirean perspective is the environmental perception of the place lived, and the identification of the most latent and hidden contradictions, such as water, soil and air pollution or the exploitation of labor power through a meagre wage.

In this educational perspective, the political aspect is impossible to be detached, since it shapes the way the system itself operates, in the economic, social and educational spheres. Thus, we bring the cycle oppressed-oppressor, developed by Freire (1987), in his work *Pedagogy of the Oppressed*, for the contextualization of climate change, thus deepening the exchange of ideas of environmental education. This relation human being-nature, as we have been demonstrating in this paper, shows that the human being is also part of nature, and at the same time depends on it for its own existence. Based on this, we stress that to oppress nature is also to oppress the human being. Taking into account that a large part of the destruction of nature comes from companies linked to countries in the Global North–extractivism, pollution, oil and gas multinationals, etc.–we outline an oppressor-oppressed relationship in which the Global South is oppressed by the exploitation of natural resources that are

⁴ Most powerful earthquake in 20 years hits Southern California; see photos (2019, July 6). G1. <https://g1.globo.com/mundo/noticia/2019/07/06/forte-terremoto-sacode-o-sul-da-california.gh.html>

used to meet the consumption demands of the Global North. Therefore, the oppressor is the current economic system itself and the countries that still operate with this imperialist logic (Nakaoshi et al., 2021).

However, with Freire (1987), we can see that this question goes even deeper. By not liberating the learner, in the sense of promoting a complex and critical perception of the world, the cycle of oppression is consolidated, which makes the oppressed potential oppressors. We understand that all people are social agents of change, and, through the emancipation provided by Freirean education, we reach the development of a class consciousness, which fights against the moulds of oppression and makes those involved perceive themselves as an active part in this process of social construction. "Only to the extent that they discover themselves as 'hosts' of the oppressor will they be able to contribute to the sharing of his liberating pedagogy" (Freire, 1987, p. 20). Regarding environmental education, if it is not approached from the perspective of the complexities that climate change has, in all its broad contexts, it becomes difficult to form individuals increasingly concerned about the environment. That is why it is important to build this environmental education, which warns of the dangers and consequences of an ecological imbalance, from the perspective of class consciousness. It is not enough just to reflect "(...) about the parsimonious use of treated water and electricity in the home-school-workplace, the endangered species, recycling or the Amazon Rainforest as the lung of the world" (Fortunato, 2015, p. 11). Presenting the complexities of the mundane situation is essential for the construction of an environmental education that follows the philosophies left by Freire (1987).

Therefore, awareness is the fundamental role of Freirean education, from the conditions that it provides to individuals to realize themselves in an oppressive, imperialist system. Therefore, when transporting it to the environmental context, it is of first necessity that we understand why we are in this current crisis, from the studies of the relations of social and economic development through long and short times. After that, it is possible to think of an attempt to build a more just and less unequal society. However, without liberating, democratic, critical and emancipatory education, this becomes more and more difficult.

FINAL REMARKS

By analyzing the complexities existing in the socio-environmental crisis from a historical perspective, perceiving the relationship between human beings and nature in space and in the short and long-terms, we can realize that environmental degradation has reached an extreme limit. And to it, the stage of development of current capitalism is interconnected, with its unbridled production and consumption patterns. Exactly for this reason, it is essential to approach the current context of climate crisis from the perception of how society has evolved to arrive at the current moment.

The productive relations within the capitalist system itself are driven by extractive methods that began centuries ago, whether for the development of ancient societies, or even in

the colonial period, where various countries of the Global North interfered actively in nature and in the lives of populations of colonized countries. From this, it is possible to see that the natural resources that were obtained for the development of merchandise in the colonial process were fundamental in the evolutionary process of the colonizing countries, precisely because of the enrichment provided. This enrichment currently allows a better quality of life for the population of countries in the Global North. Moreover, the colonial process addressed above allowed the Industrial Revolution, the historical moment that occurs the exponentialization of human interference in nature, to supply the increasingly productivist and consumerist moulds of societies.

It is clear that climate change affects and will increasingly affect all countries. However, it is those belonging to the Global South that will be most affected, since they have other intensifying and crisis-generating factors, such as social inequality, poverty, lack of basic sanitation, lack of decent education, food vulnerability, etc. In addition, they do not have economic and technological conditions to deal with environmental disasters, which directly influences the recovery time of countries after the materialization of a catastrophe. In this paper, we compared how developed countries from the Global North adjust to crisis situations, and recover from environmental catastrophes much faster than countries from the Global South. Therefore, there is no equality in the approach to the climate crisis.

Eco-socialism is thus presented as an important option in the attempt to mitigate the impacts of climate change, and as a hope for structural change in the capitalist system itself.

Structural change is seen as necessary so that billions of individuals are not swallowed up by the materialization of environmental catastrophes. Everything that is done in this decade of 2020-2030, will be fundamental for the future of the planet and the human species itself. That is why we also bring, as a fundamental pillar of the discussion, the Freirean environmental education, relating the thoughts of the patron of Brazilian education, with the development of criticality in relation to climate change. Only eco-socialism, without a true revolution in education, will not be able to contain the growing wave of catastrophes. Therefore, it is necessary to bring Freire's (1987) teachings into environmental education in order to create a democratic, critical, liberating environmental education, in which individuals can see themselves as agents of change of their own environment and nature. Freire (1987) is an attempt of resistance in the midst of chaos and barbarism.

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