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PERSPECTIVES

ON ENVIRONMENTAL EDUCATION AND ENVIRONMENTAL JUSTICE
FOR A LATIN AMERICA AND THE CARIBBEAN POST-COVID-19

PERSPECTIVAS SOBRE EDUCACIÓN AMBIENTAL Y JUSTICIA AMBIENTAL PARA UNA AMÉRICA LATINA Y EL CARIBE POST-COVID-19

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ABSTRACT

Latin America and the Caribbean is between regions the world with the highest number of Covid-19 deaths. What is certain is that some factors allow the continent to suffer more damage and have greater difficulty in facing the pandemic, the objective of this research situated in the field of Fundamentals of Environmental Education is to understand this situation at first, and then seek to point out alternatives for the region. These alternatives are found from the horizon of environmental justice for the post-Covid-19. The study follows a methodological approach of Philosophical Hermeneutics. as perspectives the study points to: adoption of Eco socialism, change in the energy mix; change in consumption practices; change in human-nature relations, new ways of bringing nations together, overcoming the colonialist model; strengthening of potential and overcoming the discourse of poverty; Latin American solidarity as a possibility to overcome social exclusion; the reinvention of more democratic political systems with the effective participation of the population; appreciation of Latin American identity, based on the recognition of Traditional Peoples; and facing the postponement of the discussion on climate change.

Keywords: Perspectives, Environmental Education, Post-COVID-19, Latin America, The Caribbean.

RESUMEN

América Latina y el Caribe se encuentra entre las regiones del mundo con mayor número de muertes por Covid-19. Lo cierto es que algunos factores permiten que el continente sufra más daños y tenga mayores dificultades para enfrentar la pandemia, el objetivo de esta investigación situada en el campo de los Fundamentos de la Educación Ambiental es comprender esta situación en un primer momento, para luego buscar señalar alternativas para la región. Estas alternativas se encuentran desde el horizonte de la justicia ambiental para el post-Covid-19. El estudio sigue un enfoque metodológico de la Hermenéutica Filosófica. como perspectivas el estudio apunta a: adopción del ecosocialismo, cambio en el mix energético; cambio en las prácticas de consumo; cambio en las relaciones hombre-naturaleza, nuevas formas de acercar a las naciones, superación del modelo colonialista; fortalecimiento de potencialidades y superación del discurso de la pobreza; La solidaridad latinoamericana como posibilidad de superación de la exclusión social; la reinención de sistemas políticos más democráticos con la participación efectiva de la población; valoración de la identidad latinoamericana, a partir del reconocimiento de los Pueblos Tradicionales; y ante la postergación de la discusión sobre el cambio climático.

Palabras clave: Perspectivas, Educación ambiental, Post-COVID-19, América Latina, El Caribe.

INTRODUCTION

In March of 2021, Latin America and the Caribbean is the first region in the world with the highest number of COVID-19 deaths. Due to the serious situation that the pandemic established in life, people often have numerous difficulties in looking at those who are very close to them. As COVID-19 expands, it occupies some territories in a certain sequence: Asia, Europe, United States of America; likewise, the news is being centralized in these contexts. Thus, in this work, it is important to seek to draw attention to our Latin America and the Caribbean, whose challenges are immeasurable. However, even though the whole region has common problems and identities concerning COVID-19, each country in Latin America and the Caribbean experiences the demands of the pandemic in its way, and according to the conditions it has to face it.

What is certain is that some factors allow the continent to suffer more damage and have greater difficulty in facing the pandemic than other nations on different continents with higher development. In a way, there is an array of factors that hinder access to decent and fair conditions to live in Latin America and the Caribbean, including: a) the economic development model aimed at the use and abuse of natural resources extraction with highlights to the great impacts on life caused by mining, unrestrained in most nations, and the impact created by the use of the energy mix of coal and oil. This reinforces the fact that, in the continent and region, capitalism is more aggressive than in other contexts due to the way that exploitation of natural and human resources is done. b) The democratic fragility in most nations means that many countries in Latin America are, at this time, in a context of affirming or at-risk democracy. Associated with this is the return of populist far-right governments, as is the case in Brazil, and alliances with military forces. c) The continent before COVID-19 already had a high unemployment rate. d) As a result of unemployment, corruption and drug trafficking, the increase in extreme poverty is another serious issue. e) As a result of socio-environmental and economic problems, environmental migration is another factor that mobilizes thousands of humans in Latin America and the Caribbean in search of a guarantee of life. f) external debts, dependence on developed countries, especially China and the United States, besides, high taxes are also factors of low growth expectation in a pre-COVID-19 Latin America and the Caribbean (Pereira, 2020).

The arrival of COVID-19 in the region has significantly increased these problems. From this perspective, the consideration is that, in Latin American countries, life is being even more threatened compared to other nations with higher development, considering another factor prevalent in

most countries in the region: the lack of structure of public health systems. Seeking not to work at the level of assumptions, information from the Comisión Económica para América Latina y el Caribe, (2020) & Observatorio de conflictos Mineros de América Latina, (2020). In general, the data, for the most part, accentuates, even more, the problems experienced in the pre-COVID-19 situation.

According to Comisión Económica para América Latina y el Caribe, (2020) data, there is a population of 650 million people in Latin America and the Caribbean. This population has historically been going through numerous previously mentioned difficulties. In terms of illustration, in December 2021, only Brazil reached 697.000 deaths in 36 million confirmed cases.

The actions taken by each government in each country go towards closing borders, flight cancellations, social isolation, direct transfers of resources to the poorest and micro-enterprises, urgent improvements in the health system, hiring specialized health personnel, and adoption of quarantine with many decrees, in addition to awareness campaigns. At least 32 countries in the region have already reached the WHO target of 40% vaccination coverage by the end of 2021, and several more are on the way. However, many continue to experience delays and coverage in Haiti, Nicaragua, Jamaica, Saint Vincent and the Grenadines and Guatemala remains below 20% (Comisión Económica para América Latina y el Caribe, 2021).

Also, Comisión Económica para América Latina y el Caribe studies pointed to a 5.3% drop in GDP in 2020, and an increase in the number of unemployed people in Latin America and the Caribbean by 12 million more than the area already had. Also, the increase of over 70 million poor people in Latin America and the Caribbean. This means that the region would reach 300 million people in poverty. It is a crisis of immeasurable proportions. The first traces already point to worrying data, one of which is presented by the Regional Panorama of Food and Nutritional Security 2021, where, in just one year - and in the context of the COVID-19 pandemic - the number of people living with hunger increased by 13 .8 million, reaching a total of 59.7 million people.

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This serious situation, with factors that have preceded it for a long time, in a way, must not hide the broad aspects of a socioecological crisis that has been plaguing humanity, especially in the countries and continents that have a large number of excluded people of all kinds. Regarding the field of Fundamentals of Environmental Education, the referred environmental crisis receives some denominations and associations to the crisis of the capitalist, civilization and socioecological systems.

Therefore, recognizing the causes referred to in the capitalist system and in its mode of production, associated with the concept of modern strategic rationality, aimed at increasing profit and power, to bring, through the eyes of Environmental Education, some possibilities for thinking a Latin America and the Caribbean post-COVID-19. It is a hermeneutic critical understanding effort in which possibilities are sought from the realization that COVID-19 ends a period and an economic model based on the maximum extraction and exploitation of natural resources and disrespect and violence against life. In this way, attention to future movements and perspectives are drawn, which may deserve either the abandonment or the adoption of new ways of being, living, and inhabiting in Latin America and the Caribbean.

MATERIALS AND METHODS

It is a bibliographical study that even considering the philosophical hermeneutic approach as a method, it is worth noting that there is no single method, since Gadamer's perspective is based on the interest in other real experiences to which the scientific method does not have access. Thus, the proposal is to discuss and analyze the meaning of the text on the subject, seeking a comprehensive revelation not only of the current interpretative errors, stripped of criticality and historicity in the face of the crisis of identity, belonging and, perspectives in Latin American territories in the post-COVID-19 context.

Thus, our proposal initially consists of reflecting on Latin American identity and the main challenges of the continent, which range from belonging to the multiple forms of colonization that still prevail under the guise of neoliberal policies and on the development model that caused growing inequalities.

RESULTS AND DISCUSSION

The danger of returning to the old economic logic

Each day it becomes more evident the instrumental and strategic rationality that guides the perspectives of many speeches, which pose themselves as innovators, renewers of meaning, salvationists, and guarantors of life. In

this way, these are speeches in which the same interests are intrinsic; in which the economy dictates the course of life. It can be understood that in projects towards a freer Latin America, perhaps the biggest siren's song that we need to overcome in the possibility of new agreements. It is a very consistent discourse, which demonstrates the strengths of the government systems, allied to the richest entrepreneurs, who have been disguised as a false discourse of aid and charity, with the ultimate goal of returning and maintaining the old *modus operandi*, as yet was witnessed:

In Chile, the extractive loot and plunder generate multiple impacts and violations of human rights. One of them is water rights. In the current pandemic moment caused by COVID-19, the scarcity of water is leading to even more serious conditions for the population in the situation of greater vulnerability. (Observatório de conflitos Mineiros de América Latina, 2020).

It should not be forgotten that this is the same old excluding economy that continues to operate. Therefore, in future projects, people must first recognize the disguised strategies that come from it. In general, it comes as a proposal to save jobs, as in the Brazilian case. Therefore, the position will be fundamental: entrepreneurs must choose either to keep or changing it. It is believed that this is a fundamental moment for a radical break with any alliance with the old economy.

According to Pasinetti (2020), there has been an important worried about the lack of connection between the theoretical and the institutional analysis of economics regarding production or extraction which has noted that a re-orientation is necessary to adopt a new way of an economic model considering not only the government and the entrepreneurs but also their workers and the people they care of. In our understanding, it is fundamental to adopt popular economies in the perspective of a solidarity economy.

Change in the energy mix

Thinking about the opportunity given, even at very high costs. The COVID-19 undoubtedly decrees the ruin of the energetic mixes based on oil and coal. They are a cause of environmental damage from its extraction and transportation to its leaks of numerous proportions. They are also the cause of high levels of pollution. According to Ghoshray & Malki (2020), in order to have a successful transition to the new renewable energies, it is necessary to make significant changes not only in technology but also in the regulatory framework and the way of consumption that the population has in a specific area, considering the

unsustainability feature of the fossil fuel-based energy that makes impossible to continue using this kind of materials. Oil, for instance, is associated with a great concentration of wealth and power in Latin America. Among the 50 countries with the largest oil reserves in the world are the following Latin American countries: Venezuela (1st place), Brazil (13th), Mexico (17th), Ecuador (22nd), Argentina (29th), Colombia (39th), Peru (42nd), Guatemala (47th), Bolivia (48th). This shows how much this kind of fuel is internalized in their life. It also points out the colonialist interest in the agreements to control these reserves. The expectation is a post-COVID-19 Latin American and Caribbean society with greater resistance to this energy source and with greater openness towards the adoption of cleaner energy sources. The situation caused by COVID-19 can serve to accelerate the adoption of renewable energies on a global scale, by electrifying transport and heating systems, in addition to the more direct use of clean energy sources. As stated by Klemeš, et al. (2020), the COVID-19 outbreak has obligated people around the world to accelerate the way they make changes in their lives and to adopt new or leave old habits behind, thus making the new normal a mayor opportunity for humanity. The goals of the International Renewable Energy Agency for 2050 could be achieved much sooner if they dare to make that choice. That choice involves raising the awareness of the population and political decisions on a large scale in the continent. In this sense, Environmental Education can also contribute to this educational process.

Change in human-nature relationships

This relationship has been studied in Environmental Education by many experts. Studies even pointed out a non-hierarchical change in humanity, which was considered for a long time in a privileged space, apart from other natures. In the context of COVID-19, some claimed that nature is taking revenge on humans. However, this is not the case. According to Bernal & Posada (2022), It should be noted that environmental degradation is perceived by individuals through phenomena known as 'market failures' or externalities. Also, climate change derived from human activities affect ecological systems generating unpredictable consequences thus, it is important to understand the dynamic process in the ecological and the social systems to develop effective strategies towards more sustainable human-nature relationships. To mention a few: oil shortages, water and air pollution, deforestation of oil, pollution of water bodies and air, deforestation, extinction of animals and plants, and climate change. These are indicators that affect humanity. At this moment, during the COVID-19 pandemic, the Wildlife Conservation Society denounces the illegal capture and commercialization

of several species of wild animals in Peru; water scarcity in Chile, resulting from mining processes; the same in Mexico, where from North to South wastewater discharges occur without permission in more than 5,000 wells by beverage, food, hygiene, construction, mining, and textile companies, among other sectors. In the same logic, there is an increase in mining activities in Uruguay, with the false discourse of reactivating the economy. In Brazil, during the pandemic, there is an acceleration of deforestation in the Amazon rainforest and the forest fire season is about to begin, with the intensification of conflicts involving land invasions and the escalation of violence against agents of environmental agencies. Besides, large demonstrations by organizations against the approval of the Provisional Measure 910 (MP 910), called by resistance groups as the PM of land grabbing. What can still be noticed is the anthropocentric perspective in a humanity-nature relationship, similar to the subject-object relationship.

Based on studies carried out, rooted in Gadamer's philosophical hermeneutics 1999, the referred relationship can assume different senses, with meanings that point out profound changes in this relationship in Latin America and the Caribbean. According to Gadamer (1999), humans can only understand their existence in the world through language. The reality remains itself in permanent dialogue. In this perspective, there is no dialogical hierarchy, but different understandings about what a certain context is telling them. From this comprehensive opening, people can perceive the countless messages and learnings that nature is passing on to them. It is possible to say that, with only a few days of quarantine, significant changes have already occurred, ranging from the reappearance of endangered species; better quality in the oceans, as humans have not had them in a long time; changes in the air, with the fall in the levels of NO₂ and CO₂; and changes in the planet's noise. According to Berman & Ebusu (2020), human relationships have been affected mainly due to the social distancing and business closure measures established by the government of every country causing significant changes in human behavior which have had a clear impact on air pollution, the results show that there has been a reduction of air pollution in the US by 25.5% and 30% in Spain because of the reduction in car and airplane usage. Based on ancestral ontologies and their knowledge (particularly the ones from Traditional Peoples), is that the human race can establish relationships of greater listening and respect for different natures. This development model needs to be confronted, based on the idea of dominating nature at any cost. Perhaps, with greater humility, people can connect better with the universe and guarantee more life on the planet, because

the signs and learnings are very clear, humans just need to know how to choose.

New forms of approach between nations: overcoming the colonialist model through epistemological decolonization

The COVID-19 brings evidence that it is necessary to think collectively, looking for common alternatives, if people want to guarantee life on the planet. However, whether through the epistemological horizon or the economic horizon, when looking for alternatives for Latin America and the Caribbean, they emerge from colonialist perspectives. Usually, they emerge from places that consider themselves to be appropriating common destinations. In this bias, humans are born as dependents, either from an economy or from concepts of knowledge that reinforce this model. The purpose, as a possible environmental horizon for this America and the Caribbean post-COVID-19, is the recognition of the Epistemologies of the South, as pointed out by numerous researchers:

It is therefore a matter of proposing, based on the diversity of the world, and epistemological pluralism that recognizes the existence of multiple visions that contribute to widening the horizons of worldliness, of experiences, and alternative social and political practices. There is no question about the importance and value of scientific intervention over the past two centuries, especially through technological productivity, even taking into account the problems created for which modern science has no solution. However, this monopoly of science cannot conceal and prevent us from recognizing that there are other forms of knowledge and other modes of intervention in the real to which science has contributed nothing. This is the case, for instance, of the preservation of biodiversity, which is only possible through peasant and indigenous forms of knowledge and which, paradoxically, are threatened by the growing intervention of modern science.

COVID-19 provides us with this reflection and choice: to think about Latin America and its projects based on the recognition of their identities or want to think about it based on the relations of dependence and subservience already established by the leaders of the old globalization, which proved itself to be deficient in the face of thousands of lost lives? Perhaps, at this moment having concrete opportunities to overcome the hegemonic discourse for purposes of dominance. Perhaps it is indeed necessary to assume the horizon where Latin America and the Caribbean perspectives are recognized with greater autonomy, identity, independence, and surpassing the horizon that colonizes knowledge and practices.

Strengthening potential and overcoming the discourse of poverty

Many texts put in the spotlight the difficulties that our region is going through. Among them, many reinforce the trend of impoverishing that Latin America and the Caribbean are going through. According to Rojas (2020), the income in Latin America at a per capita level is not low, nonetheless, the distribution of the wealth is structurally inequitable making the region seen as a middle-income one, this means that the region is not immersed in problems such as starvation, but in some countries, it is possible to observe a big proportion of the population suffering social and economic difficulties related to their well-being. This discourse of poverty also largely obscures the potential of the continent, in another view, Latin America and the Caribbean are not poor. Poor is the mode of production that daily throws thousands of humans in misery. The region has a lot of wealth, whether it is cultural, environmental, social, natural, and large-scale production. However, the mode of production, with its socio-environmental pathologies and its wide concentration of wealth, excludes thousands of Latin and Caribbean people from having access to basic guarantees. It is said that that region needs a profound inversion of values, which must start from the recognition of what it is, towards sustainable policies in defense of human rights. To this end, they should reinforce, in their projects, the concepts of place, identity, and territory, which undergo changes based on power relations. The context created by COVID-19 provides us with a reevaluation of place, identity, and territory, as well as the power relations that have been established in Latin America. This, without a doubt, may provide a discursive change that reaffirms even further the potentialities towards overcoming dependencies.

Latin American solidarity as a possibility to overcome social exclusion

In the context of the COVID-19 pandemic, movements towards aid are taking place, especially for those most in need, these movements are considered fundamental, mainly because they are real opportunities to save lives. However, they are not homogeneous movements with the same ends. According to Hernández et al., (2023) Environmental education is insufficient and non-existent in most schools, limited to content that needs to be learned, incapable of understanding national and global environmental problems, without involving all sectors of society in their culture, customs and traditions, economic development, and respect for the environment, lacking an adequate curriculum and a teacher training process. It is also known that one of the strategies used in Veneto, Italy a high-income region where the COVID-19 started to spread, was locking down some of their towns around it resulting in 658 hospitalizations avoided due to holding

back the evolution of the pandemic, indicating that containment strategies can contribute to positive results in saving lives. There is a movement that emerges from the urgency of governments to transfer immediate resources to the neediest; there is another movement in the financial system offering flexibility to customers and some donations to entities; also, there is another movement of businessmen who publicize donations of products ranging from food to hygiene on a national scale. There also exists a movement by artists, who are part of the cause, to collect numbers of followers in their streams being one group with the proposal to disseminate their art, another with the proposal of raising awareness and more effective participation in the cause of saving lives. Based on Agaba & Soomiyol (2020), the participation of the society in containing the spread of the virus play a very important role when reporting the cases of the disease is accurate, the more people are aware of the mode of transmission and preventive measures, the better their behavior in preventing and curtailing the spread of the disease.

Also, numerous movements ranging from the peripheries to the big cities, as forms of organization and struggle in defense of life. In Brazil, the case of numerous institutions linked to the human rights agenda stood out, as they signed a document and demanded from political leaders that they consider, as a priority, the most excluded and the most vulnerable: people on the street, domestic workers, Lesbian Gay Bisexual Transexual (LGBT), unemployed, Traditional African and Indigenous Peoples, small producers, informal vendors, autonomous and informal service providers, among many others. That is the moment when Environmental Education can serve to reaffirm the perspective of a Latin American and Caribbean solidarity horizon, as stated by Inera et al., (2020) Environmental Education seeks to mold values and develop a moral perspective among students in order to promote their motivation and encourage them to take responsible actions in every level whether individual or collective, however, there is still a gap between the theory and the practice of the environmental values. This happens first by knowing the problems that neighboring nations are going through, afterward, by seeking partnerships and defining common strategies and guidelines. Latin American solidarity demands the recognition of otherness, the approximation of common goals, and the political option in favor of the most vulnerable. Also, the need for a common project that is not dictated by financial agencies. The COVID-19 teaches us that the pain of losing a loved one, whether in Uruguay, Brazil, Mexico, Peru, or Ecuador, is the same, and that it should be treated as our problem. Concerning environmental issues, exists enormous difficulties with joint information that can contribute to our projects. If we

want to face the problems that affect Latin America and the Caribbean and reduce the levels of exclusion and environmental racism, seeking to reinforce our common identity is a must. Some reasons that lead to the existence of environmental racism are, the lack of political or economic clout to prevent the community that is not able to get environmental protection from having it, another reason is the time that environmental law has been around which are 20 years. The elimination of environmental racism requires understanding the topic, reforming the structure of the regulation, considering distributional equity and, promoting citizens to think of new ways of solutions.

A reinvention of more democratic political systems with the effective participation of the population

This work demonstrates the difficulties of emancipatory projects in Latin America due to several factors, among them: the adoption of a predatory capitalist development model; governments' alliances and commitments to this economic agenda; and the fragility of the democracies that are at-risk and others in affirmation. As if these were not enough, in many countries, there is the return of populist governments of the extreme right, as is the case of Brazil. According to Absher et al., (2020), three characteristics can define the term of left-populist regimes in Latin America, first, they promulgate economic policies that are not suitable for markets; second, they make some changes in the constitution in order to have an extension of their period in charge; third, they focus their power mostly in the executive line to minimize balances and checks. Also, the economic consequences of left-populist leaders that Latin America has had in countries such as Venezuela, Nicaragua, Bolivia and, Ecuador, are that on average, there has been a significant reduction of the real per capita income by more than 20%, showing how bad this type of regimens are for a developing country. This is a diagnosis by Pereira (2020) when he discusses the end of the Pink Tide (left-wing governments) and progress in Latin America of the Brown Tide (with far-right governments allied with military forces, as it is in Brazil). However, it is known that this is not just a Latin American problem. The largest model comes from the United States.

The result of that Brown Tide, among other aspects, is the disrespect for popular projects against inequality. It is a very unjust system of government, reinforced by the logic of neoliberal globalization. As already demonstrated, it is a political system of hatred, disrespect for basic human rights and guarantees, xenophobia, racism, intolerance, and misogyny. Thus, in the Brazilian case, we witnessed the denialist perspective of the Jair Bolsonaro government, which did not show acceptance and recognition of the 697,000 deaths from Covid19 in the country. In

addition, in the midst of a pandemic, it released extractive practices in favor of deforestation and mining. In this sense, as a socio-environmental political alternative, we suggest the adoption of ecosocialism, by Michael Löwy, who, among other aspects, states:

a) the collective ownership of the means of production (the term collective here means public, community, or cooperative property), b) a democratic plan that can allow society the possibility of defining its objectives about investment and production; and c) a new technological structure of the productive forces. Put in other words, a revolutionary transformation on the social and economic level. (Löwy, 2019).

This eco-socialist transition requires the population to be open to the recognition of various practices that already exist on the continent and that envision more solidary horizons. Thus, COVID-19 creates conditions for us to re-evaluate our production model, mainly due to the insufficiencies and the failure of the current capitalism. In this way, Environmental Education can contribute to the construction of a new model for the development of a more social economy based on the strengthening of regional integration and the radical rupture with the policies from neoliberal globalization.

Valorization of Latin American identity based on the recognition of Traditional Peoples

According to De Azevedo (2020), there is an estimate that the indigenous population in Latin America and the Caribbean is 45 million people. This total belongs to 826 peoples, of which only 200 are in isolation. In addition to the daily problems with numerous threats, the arrival of COVID-19 is making the issues of these peoples more intense, for example, this population lacks basic sanitary and hospital structures. According to Lanchimba et al., (2020), the strategies of containment have caused a severe impact on economic activity in the region of Latin America and the Caribbean mainly because of the fall in consumption derived from the lockdown and the precautionary savings, affecting small firms and informal workers which predominate in the area. The report of the *Fondo para el Desarrollo de los Pueblos Indígenas de América Latina y El Caribe* (Fund for the Development of Indigenous Peoples in Latin America and the Caribbean, FILAC), expresses its concern when mentioning that 700 Indigenous Peoples may disappear due to the growth of the pandemic:

Latin America is becoming the epicenter of the pandemic, counting 318,000 cases, on Friday morning, 08-05. Statistics show that cases have doubled every four days, currently accounting for a proportion of 51/100 thousand

inhabitants. The number of victims has already reached 17 thousand. The worst cases occur in Brazil, Peru, Ecuador, and Mexico, in that order. (De Azevedo, 2020).

The great vulnerability that Traditional Peoples are experiencing in the context of the pandemic is evident, the need for policies for the recognition and appreciation of these peoples is urgent, as they are losing great indigenous leaders, and also, they may be losing thousands of lives, memories, cultural roots, and ancestral knowledge. In Brazil, the Bolsonaro government has permissive legislation (MP 910) for land grabbing practices on indigenous lands. This population also faces other serious problems such as police violence in almost all of Latin America, as well as gender violence. Another factor is the denouncement from the indigenous community feminism that the level of violence against women belonging to Native Peoples is higher than that of the general population in Latin America and the Caribbean. The great suffering and high vulnerability of the Traditional Peoples in the context of COVID-19, demand a larger political commitment to these populations. This commitment involves recognizing and valuing cultural identity, which defines our way of being, and living in our America and the Caribbean. It is impossible to forget the inheritance of the concept of Pachamama and Bien Vivir, as a horizon to be followed in the relationships that are systemically established with Mother Earth.

Facing the postponement of the discussion on climate change

The climate change agenda is currently one of the major global topics. However, even if present in some speeches, many countries have been delaying decisive actions in addressing this issue. This is due to the development model already mentioned in this work. In this way, COVID-19 undoubtedly puts the spotlight on the socioecological crisis. The hope is that humanity will learn enough from this problem, so that the first challenge that we have to overcome is, without a doubt, the pandemic that is underway, so that we can assume the commitment to deal with climate change. According to Manzanedo & Manning (2020), the prevention of climate change sometimes is being communicated as an investment that is not necessarily generating a return, different from the investment that is required to prevent the pandemic, nevertheless, the investments in climate change should be considered to avoid higher costs in the future. As the evidence that has been shown by the pandemic, countries that have sent messages about the consequences of the disease have better results containing it than the others otherwise, climate change is in a similar situation struggling with the need for early and heavy action. These have long

been showing strong signs that life is threatened. In Latin America and the Caribbean, we already have large studies with several experts on the subject that are known to the scientific community. However, political actions and projections still place this problem at the ideological level. In the laws of Latin American countries, climate change appears in almost all of them as a goal towards sustainable development. However, in everyday practical life, the development system takes a very different course so that Environmental Education can contribute significantly so that we can assume and demand commitments in this direction.

CONCLUSIONS

At the beginning of this work, it was mentioned that Latin American and Caribbean socio-environmental possibilities and perspectives for a post-COVID-19 society. Throughout the text, the large problems we are facing and the great difficulties that will arise due to the imposition of COVID-19 were reinforced. The thesis that Latin America and the Caribbean are suffering more in the face of the pandemic due to the great vulnerabilities and the lack of structures, both physical and political, as well as equipment and specialized personnel was defended. The study also demonstrated the need for effective political by government officials, especially concerning the most vulnerable. However, it shows that COVID-19 only aggravates problems in a pre-COVID-19 Latin America. It reinforces our research in Environmental Education will no longer be the same in the context of post-COVID-19.

It is important to mention that the COVID-19 disease was not expected by anyone, at the beginning it was thought that it would only be a matter of a few days, maybe a week, however, as the days progressed it was confirmed that it would not be a matter of a short time, taking Latin America by surprise. In spite of the consequences already mentioned above, the pandemic made it possible to identify the need for sustainability and environmental education to change the support of ideas, mainly in the economic dimension, it is also necessary to look at the ecological, social, religious and political aspects, It is also necessary to consider the native communities, indigenous peoples that allow to cross the fragmented scheme through education and development of competences, that formulate objectives in search of the improvement of the quality of life and not only look for political strategies that remain in speeches.

It is worth mentioning that school dynamics, especially environmental programs, reinforce the idea of improving the capacities of both parties, the student and the teacher, for the development of transversal and holistic

programs, where values are practiced that lead society to an understanding of shared responsibility, An example of this is the COVID-19 disease, where it was necessary to work together to avoid contagion, a situation in which the actions of a single person could significantly affect the health of others had not been seen before, in a similar way to sustainable development, joint actions can lead us to a common destiny.

To contribute, from the perspective of Environmental Education, which in our understanding will assume a central role in the post-COVID-19 context, the suggestion is some perspectives for the Latin American future, among which were highlighted: the danger of returning to the old economic logic; change in the energy mix; change in consumption practices; change in human-nature relations, new ways of bringing nations together, overcoming the colonialist model; strengthening of potential and overcoming the discourse of poverty; Latin American solidarity as a possibility to overcome social exclusion; the reinvention of more democratic political systems with the effective participation of the population; appreciation of Latin American identity, based on the recognition of Traditional Peoples; and facing the postponement of the discussion on climate change. Finally, Latin America and the Caribbean have enough alternatives to face the socio-ecological crisis, in addition to the eco-socialism mentioned above to face climate change, against the great damage that is manifested through the Anthropocene. Among many alternatives another two are suggested, the environmental perspective of Cosmocene Ecology Pereira (2019) & *Bien Vivir* where Pachamama claimed that other ways of living life, not only on our continent but across the universe. In this perspective of epistemological decolonization, the Cuban example serves as a positive source of inspiration in Latin America and the Caribbean, as it has shown higher independence and greater preparation and autonomy in the defense of life against viral diseases.

As for the contributions of Environmental Education, the defense of a post-pandemic world with greater awareness of our place in the universe, especially in Latin America and the Caribbean. An Environmental Education that will accompany not only the changes in remote work but the ways by which workers are controlled by remote work; it also invites us to a greater effective commitment towards political issues and encourages us to have a greater capacity to resist economic imperialism. The invitation is to make many decisions and changes in favor of life. Among these changes, are the processes of recognition of social movements, of the territories, where populations who are victims of environmental racism live, but which, however, have a lot of strength and resistance to face the struggles

for a dignified life. Finally, an Environmental Education in defense of a world where the population can face the great socio-environmental injustices from more democratic perspectives.

REFERENCES

- Absher, S., Grier, K., & Grier, R. (2020). The economic consequences of durable left-populist regimes in Latin America. *Journal Of Economic Behavior & Organization*, 177, 787-817.
- Agaba, G., & Soomiyol, M. (2020). Analyzing the spread of COVID-19 using delay epidemic model with awareness. *IOSR Journal of Mathematics*, 16, 52-59.
- Berman, J., & Ebisu, K. (2020). Changes in US air pollution during the COVID-19 pandemic. *Science of the Total Environment*, 739, 139864.
- Bernal, N. M., & Posada, S. M. (2022). La sobreexplotación de la naturaleza. Veredas. *Revista del Pensamiento Sociológico*, (42), 81-103.
- Comisión Económica para América Latina y el Caribe. (2020). Observatorio COVID-19 en América Latina y el Caribe: Impacto económico y social. CEPAL. <https://www.cepal.org/es/temas/covid-19>.
- Comisión Económica para América Latina y el Caribe. (2021). Pandemia provoca aumento nos níveis de pobreza sem precedentes nas últimas décadas e tem um forte impacto na desigualdade e no emprego. CEPAL. <https://www.cepal.org/pt-br/comunicados/pandemia-provoca-aumento-niveis-pobreza-sem-precedentes-ultimas-decadas-tem-forte>
- Činčera, J., Johnson, B., Kroufek, R., & Šimonová, P. (2020). Values Education in Outdoor Environmental Education Programs from the Perspective of Practitioners. *Sustainability*, 12(11), 4700.
- De Azevedo, W. (2020). *América Latina. 700 povos indígenas estão em sério perigo de serem extintos*. <http://www.ihu.unisinos.br/598791-america-latina-700-povos-indigenas-estao-em-serio-perigo>
- Gadamer, H. G. (1999). *Verdade e método: Traços fundamentais de uma hermenêutica filosófica*. Editora Vozes.
- Ghoshray, A., & Malki, I. (2020). The share of the global energy mix: Signs of convergence? *Bulletin of Economic Research*, 73(1), 34-50.
- Hernández, S., Ascencio, M., Hernández, N., & Castañeda, M. (2023). La insuficiencia de educación ambiental en las aulas de las escuelas mexicanas, como detonante de una propuesta de modificación del Artículo 3ero Constitucional que considere la transversalidad de la educación ambiental en todos los niveles educativos. *LATAM Revista Latinoamericana De Ciencias Sociales Y Humanidades*, 4(1), 289-313.
- Klemeš, J., Van Fan, Y., & Jiang, P. (2020). COVID-19 pandemic facilitating energy transition opportunities. *International Journal of Energy Research*. 1-7.
- Lanchimba, C., Bonilla-Bolaños, A., & Díaz-Sánchez, J., P. (2020). The COVID-19 pandemic: theoretical scenarios of its socioeconomic impacts in Latin America and the Caribbean. *Brazilian Journal of Political Economy*, 4, 622-646.
- Löwy, M. (2019). *Ecosocialismo, democracia e nova sociedade*. <http://www.ihu.unisinos.br/78-noticias/591623-ecossocialismo-democracia-e-nova-sociedade>
- Manzanedo, R., & Manning, P. (2020). COVID-19: Lessons for the climate change emergency. *Science of the Total Environment*, 742, 140563.
- Observatório de conflitos Mineros de América Latina. (2020). Las huellas del extractivismo en los conflictos medioambientales y por el agua en contexto COVID-19. OCMAL. <https://www.ocmal.org/las-huellas-del-extractivismo-en-los-conflictos-medioambientales-y-por-el-agua-en-contexto-covid-19/>
- Pasinetti, L. (2020). Economic theory and institutions. *Structural Change and Economic Dynamics*, 56, 438-442.
- Pereira, V., A. (2019). The Cosmocene Ecology: alternatives on the horizon of the Anthropocene and climate change. *Remea - Revista Eletrônica do Mestrado em Educação Ambiental*, 36(3), 388-404.
- Pereira, V. A. (2020). ¿Qué será mañana?: Educación ambiental en América Latina y Caribe, justicia ambiental y COVID-19. Editora Garcia.
- Rojas, M. (2020). Income and Well-Being in Latin America. *Human Well-Being Research and Policy Making*, 57-70.