

INDIGENOUS VOICES IN ENVIRONMENTAL EDUCATION: BUILDING
ALLIANCES TO COMBAT CLIMATE CHANGE

*VOZES INDÍGENAS NA EDUCAÇÃO AMBIENTAL: FORMAÇÃO DE ALIANÇAS NO
COMBATE ÀS MUDANÇAS CLIMÁTICAS*

*VOCES INDÍGENAS EN LA EDUCACIÓN AMBIENTAL: CONSTITUYENDO
ALIANZAS EN LA LUCHA CONTRA EL CAMBIO CLIMÁTICO*



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How to reference this article:

DINIZ, J. F.; BARBA, C. H. de; OLIVEIRA, K. F. de. Indigenous Voices in Environmental Education: Building alliances to combat climate change. **Revista Ibero-Americana de Estudos em Educação**, Araraquara, v. 19, n. esp. 1, e024061, 2024. e-ISSN: 1982-5587. DOI: <https://doi.org/10.21723/riaee.v19iesp.1.18426>



| Submitted: 30/08/2023
| Revisions required: 30/01/2024
| Approved: 05/03/2024
| Published: 24/04/2024

Editor: Prof. Dr. José Luís Bizelli

Deputy Executive Editor: Prof. Dr. José Anderson Santos Cruz

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ABSTRACT: This is a fragment of a master's research, with a qualitative approach. This article aims to analyze an intervention action in which it was sought to join forces with indigenous peoples and their powerful voices to collectively reflect on climate change and its triggers, together with eight students from the Degrees in Biology and Chemistry and seven employees of the Federal Institute of Education, Science and Technology of Rondônia. As a theoretical reference, there were used indigenous authors and environmental education authors. Conversation circles were used as a methodology for constructing dialogical spaces during the research. The results showed that providing experiences of different world representations through dialogues with native peoples and forming alliances in confronting the climate threat can contribute to the development of integrated socio-environmental thinking among subjects. It is understood the urgency of including other perspectives in education to face climate change and contemporary crises.

KEYWORDS: Indigenous voices. Climate changes. Environmental education.

RESUMO: Trata-se do fragmento de uma pesquisa de mestrado, com abordagem qualitativa. Este artigo tem por objetivo analisar uma ação de intervenção na qual buscou-se unir forças com os povos indígenas e suas potentes vozes, para refletir coletivamente as mudanças climáticas e seus desencadeamentos, juntamente com oito estudantes das licenciaturas em Biologia e Química e sete servidores do Instituto Federal de Educação, Ciência e Tecnologia de Rondônia, tendo como referência teórica autores indígenas e autores da educação ambiental. Foram utilizadas rodas de conversa como metodologia para construção dos espaços dialógicos no decorrer da pesquisa. Os resultados apontaram que proporcionar vivências de diferentes representações de mundo através dos diálogos com os povos originários e formar alianças no enfrentamento às alterações climáticas pode contribuir para que floresça nos sujeitos um pensamento socioambiental integrado. Compreende-se a urgência de inserir outras perspectivas na educação para enfrentamento às mudanças do clima e às crises contemporâneas.

PALAVRAS-CHAVE: Vozes indígenas. Mudanças climáticas. Educação ambiental.

RESUMEN: Este es un fragmento de una investigación de maestría, con enfoque cualitativo. Este artículo tiene como objetivo analizar una acción de intervención en la que se buscó unir fuerzas con los pueblos indígenas y sus poderosas voces para reflexionar colectivamente sobre el cambio climático y sus desencadenantes, junto con ocho estudiantes de las licenciaturas en Biología y Química y siete empleados del Instituto Federal de Educación, Ciencia y Tecnología de Rondônia, teniendo como referente teórico autores indígenas y autores de educación ambiental. Se utilizaron círculos de conversación como metodología para la construcción de espacios dialógicos durante la investigación. Los resultados mostraron que proporcionar experiencias de diferentes representaciones del mundo a través del diálogo con los pueblos originarios y la formación de alianzas para enfrentar la amenaza climática puede contribuir al desarrollo de un pensamiento socioambiental integrado entre los sujetos. Se comprende la urgencia de incluir otras perspectivas en la educación para enfrentar el cambio climático y las crisis contemporáneas.

PALABRAS CLAVE: Voces indígenas. Cambios climáticos. Educación ambiental.

Introduction

The dominant ways of life and economic production consolidated with the capitalist system have caused, at an accelerated pace, changes in the climate of planet Earth. In this chain of thought, Ribeiro Mendes (2022) points out that the impacts of human activities on all scales, in global proportions, emphasize the determining role of humanity in geology and ecology, considering the use of the term 'Anthropocene' appropriate for the time current geology. Faced with this new geological era, in which human actions have a profound impact on ecosystems, it is essential to collectively compose forms of resistance that overcome simplistic and fragmented views about socio-environmental issues.

According to the Intergovernmental Panel on Climate Change (IPCC- *Intergovernmental Panel on Climate Change*), an important body of the United Nations (UN), responsible for generating, monitoring and disseminating scientific information regarding climate change, most of the global warming recorded in the last five decades and projected for the next centuries is due to greenhouse gases (GHG) produced by human activity, given that the most significant and impactful climate changes are anthropic in nature.

Lima and Layrargues (2014) analyze climate change as a central phenomenon on the global environmental agenda, permeating other political, economic, social and cultural agendas that shape the development and management of current societies. In this understanding, it is necessary for all segments of society to be articulated and engaged in tackling the climate crisis. It is essential to understand that human actions impact the planet's climate in a complex, multifaceted and interconnected way. According to Capra (2022), central contemporary problems can only be solved if understood in a systemic way.

Therefore, recognizing Environmental Education as a potential driver of social dynamics, as Guimarães (2020) understands, the participation and engagement of all subjects who are part of educational processes in the debate and construction of proposals for mitigation and confrontation is essential for this crisis.

The current context of the climate and socio-environmental crises demands access to other possibilities for building knowledge and socio-environmental awareness in relation to the climate. In this way, turning to indigenous peoples and traditional communities, we find essential elements to boost the construction of new knowledge necessary to collectively think about more ecological, healthy and better ways of life for everyone, as stated by Apurinã *et al.* (2011, p. 4, our translation):

Every year the incidence and relevance of indigenous peoples and traditional populations in national and international discussions about the climate and its changes grows. This is due to the traditional ways of life and the management of the territory by these populations, preserving the standing forest. In this way, indigenous peoples and traditional populations contribute to the mitigation of greenhouse gas emissions into the atmosphere, in addition to promoting a series of other benefits, such as the conservation of fauna and flora.

The daily life practices of indigenous peoples and traditional communities are fundamentally ecological, they respect and preserve biodiversity, they contribute to the maintenance of life on the planet, listening to their voices and learning from these people presents itself as a potential for us to move towards construction of a more sustainable world. The participation of indigenous peoples in events and movements in defense of the climate, for the protection of the forest has been increasingly frequent and eloquent.

This narrative consists of an excerpt from a qualitative master's degree research, linked to the Postgraduate Program in School Education - Master's and Professional Doctorate, at the Federal University of Rondônia (PPGEEProf/UNIR) and had as its center the Federal Institute of Education, Science and Technology of Rondônia (IFRO) - Guajará-Mirim *Campus*, was approved by the Ethics Committees of the respective institutions.

This article aims to analyze one of the intervention actions carried out during the aforementioned research, in which we sought to join forces with indigenous peoples and their powerful voices to collectively reflect on climate change and its triggers, together with eight students from the Degrees in Biology and Chemistry and seven IFRO employees - *Campus* Guajará-Mirim.

Climate change: awakening and acting to defend the climate

The term “climate change” refers to changes in multiple ecological processes on Earth caused by the increase in concentrations of carbon dioxide (CO₂) and other GHGs in the atmosphere, noticed since the Industrial Revolution, in the 19th century, intensifying in the decade 1950, with the expansion of the economy, population and industry in the post-war period (Costa, 2019). Furthermore, the author recognizes that the anthropogenic origin of these changes is currently indisputable, as it is known that the extremely high emissions of CO₂, one of the main GHGs, result from the burning of fossil fuels that maintain the standard of living of a large portion of populations today.

Climate change currently represents a problem of global interest, as it affects living conditions on planet Earth worldwide; therefore, tackling it requires global commitment and commitment, coordinated with all countries.

From this perspective of thought, for Pazos and Sorrentino (2022, p. 6), “climate change is the most important and urgent global emergency facing humanity, however, most people live on the margins of this problem and, far from being active citizens in its solution, continue to increase it”.

One of the most recent IPCC reports (2022) warns of the rapid rise in climate temperature on the planet. Preventing this increase from exceeding the 1.5°C mark, as established in the Paris Agreement, which occurred in 2015, requires a significant reduction in GHG emissions, mainly from the burning of fossil fuels.

Jacobi *et al.* (2011) understand that the multiple negative impacts emerging from climate change trigger migratory movements that can harm livelihoods, affect economies, weaken development and accentuate inequalities between genders. In this case, urbanization, for example, is a process that leads to irregular use of land, the reduction of river water drainage, as the advance of real estate speculation and irregular occupations puts vegetation at risk, contributes to the occurrence and intensification of effects of extreme events.

In turn, Jacobi (2023) highlights the new reality of the climate emergency, and understands that the complexity of human actions covers different aspects of our lives, focused on our consumption patterns, production methods and energy use that we adopt, whether we live in the countryside or in the city, to economic situation of the country we are in, our age group, the diet we eat and, even, equal rights and opportunities between women and men.

From Costa’s perspective (2019, p. 28), “global climate change places additional pressure on cycles, processes and ecosystems already deeply disturbed by human intervention”. Therefore, it is essential to understand that human actions are driving climate change rapidly. The countless impacts of these changes cross borders and affect all populations, with the most vulnerable being more exposed and, therefore, at greater risk.

Pazos and Sorrentino (2022, p. 6) observe that “every day it becomes more difficult to face the consequences and hide the vulnerability of people and ecosystems”. In this vein, Jacobi (2023) also highlights that populations living in clusters of human settlements live precariously and are increasingly exposed to socio-environmental risks, subject to floods and landslides, due to severe climatic situations and dangerous impacts.

In this sense, Macy and Johnstone (2020) assert that increasing pollution, *habitat* destruction and disturbances caused by climate change have caused enormous damage to wildlife, to the point that, at the moment, a third of all amphibians, At least one-fifth of all mammals and one-eighth of all bird species are under threat of extinction.

Recognizing the consequences of climate change at the planetary, regional and local levels, the need to transform unsustainable patterns of consumption, production and exploitation of natural resources currently in force is evident, in order to avoid the death of biodiversity and the disappearance of countless species, the loss of human and non-human quality of life, mass impoverishment, the growing number of environmental refugees, victims of climate change (Jacobi *et al.*, 2011).

Despite the current consensus regarding the anthropogenic origin of the most relevant climate changes, their various negative impacts, as well as the recognition of a limit of no return, climate change still does not occupy a central position in national and international policies, and it is urgent the construction of effective global actions to combat them.

It is imperative that the entire society is engaged in the urgent process of raising awareness regarding the complexity and urgency of mitigating climate change; and, in this context, education occupies an extremely important place, as stated by Sobral, Guimarães and Arroz (2022, p. 3, our translation):

Climate changes that emerge as a mirror of the civilizational crisis reinforce the need to take into account, when reflecting on Education, the constraints of the paradigm that surrounds us, aiming to contribute to the formation of social beings that can transcend the structural and conditioning limits of the world.

Climate change highlights the unsustainability of the Western model of society materialized with the capitalist system causing inequalities, guided by the logic of the market, centered on profit, in which the triad of production, consumption, alienation, is continuously interconnected, producing a reality of serious crisis.

In view of this, it is necessary to act in a collective and articulated way, as there is an urgent need for an integrated understanding of the climate emergency situation that planet Earth is experiencing. Overcoming this serious threat to the continuity of life demands a transformation in our unsustainable way of living. It is necessary to significantly and immediately reduce GHG emissions. It is essential, therefore, to join forces in creating coping actions to build more ecological and healthy ways of life.

Anthropocene and the climate crisis

The dominant model of society, organized according to the dynamics of capital, has placed planet Earth under intense pressure, driving global environmental transformations, putting pressure on ecosystems, taking the planet into a new geological epoch, called the Anthropocene.

The term 'Anthropocene' refers to a proposed new geological era, in which humans became the main driving force of significant changes in Earth systems, being known as the era of the human being, in geological terms, which would succeed the Holocene (Alcântara *et al.*, 2021).

In this understanding, Crutzen (2002), a scientist and atmospheric chemist, responsible for introducing and popularizing the term Anthropocene to designate the current geological epoch, warns that, over the last three centuries, humanity's impacts on the global environment have intensified in consequence of anthropogenic activities, emitting high amounts of CO₂ into the atmosphere, so that, consequently, the global climate can diverge significantly from natural climate patterns for many millennia. The author also understands that the term Anthropocene is appropriate to refer to the current geological era, which, in many ways, is dominated by humans, complementing the Holocene, a warm period of the last 10 to 12 millennia.

Faced with this geological period – in which ecosystems and all forms of human and non-human life are in a situation of extreme vulnerability, as a result of planetary changes triggered mainly by human actions –, it is necessary to act, mobilize coping and overcoming strategies.

Thus, the current stage of planetary history is marked by human influence at unprecedented levels, outside the limits of natural variability, intensifying the risk of global and existential catastrophes. Thus, Pazos and Sorrentino (2022, p. 7, our translation) state that “to speak of climate change is to place oneself in the Anthropocene as a geological epoch that began with industrialization and that radically modified the planet”. As the occurrence and dissemination of environmental disasters associated with human actions become increasingly frequent, the diffusion of the concept of the Anthropocene also grows, which, in addition to being a synthesis concept applied to refer to the set of planetary transformations induced by human action, is also an alert concept, as it indicates the urgency of effective action in reducing the ecoclimatic and degenerative environmental trends observed (Ribeiro Mendes, 2022).

To transcend this time, global collective commitment and effort is essential. According to Marques (2018, p. 660, our translation), “in the Anthropocene, the dynamics of nature have

been so impacted by human activity that it is no longer possible, at the limit, to properly speak of “nature” as something irreducibly different from the human sphere”.

In turn, Krenak (2022, p. 85, our translation) warns that “the Anthropocene is accumulating so much rubbish, so much damage, that it has made the world sick” and we have nothing to be proud of, on the contrary it brings us uncertainty, doubts and challenges. Thus, anthropocentrism is also crossed by radical transformations on the planet, by the loss of quality of human and non-human life, by global climate change, by water, air and soil pollution, by fires, deforestation, erosion of the soil, the death of biodiversity, the emptying of meaning in human existence.

In this regard, Krenak, Silvestre and Santos (2021, p. 37, our translation) consider that:

[...] territories are increasingly marked by anthropocentric violence, this violence that is already leaving deep marks and that encourages some people to say that we are creating a new Era, which would be the Anthropocene. There was a time when someone complained: “Ah, we are going to enter a new era”; but we have, in fact, entered a dystopian period in which forests, rivers, oceans, everything that is a source of life, is being fought over as if we were truly at the end of the world. At some end of the world.

We can say that, with its driving force in the capture and expropriation of all natural and living forces as an inexhaustible resource, globalized capitalism has led us to the Anthropocene. The consolidation of this system, due to the lifestyles adopted, production and consumption patterns, has been causing the depletion of life sources on planet Earth (Becker; Marconin, 2021).

In this era that we are going through, characterized by a context of profound climate crisis, human actions affect nature in such an intense, complex and profound way that it is no longer possible to think about the natural environment without considering these interferences. Understanding or concluding that we are experiencing an era identified as the Anthropocene should act as a warning in our heads, because, by leaving such an impactful mark on planet Earth, to the point of defining an era, we are leaving a footprint that could remain even after our departure. (Krenak, 2020).

The situation of planetary climate crisis, materialized by climate change and its socio-environmental triggers, highlights the emergency of reflecting and intervening, collectively and assertively, in the construction of new forms of existence and interaction in the world we share.

We are experiencing a time marked by irreversible changes in biogeochemical cycles on a planetary scale, situations of uncertainty and vulnerability, which place humanity itself at

existential risk; such transformations are mostly attributed to human activities (Teixeira; Toni, 2022).

There is an urgent need to build global public policies and educational actions that promote the construction of a sense of individual and collective responsibility in relation to issues involving climate change, according to Pazos and Sorrentino (2022, p. 9, our translation), “each inhabitant of the Planet has a share of responsibility and also a response, but governments, world leaders and large corporations have a greater responsibility”.

The climate crisis is an unquestionable call for all spheres of society to engage in building more ecological habits and living practices. Therefore, it is essential to recognize and value dialogue with indigenous peoples, with other ways of life and social organization, beyond the aegis of economic capital.

Indigenous voices in environmental education: consequences of an experience at the Federal Institute of Education, Science and Technology of Rondônia

The Federal Institute of Education, Science and Technology of Rondônia, IFRO, is a public educational institution, a federal agency linked to the MEC, offering professional and technological education, operating from basic education to higher education, aiming to promote production, development and the transfer of social technologies, in particular, aimed at preserving the environment. IFRO's Institutional Development Plan (PDI) for the period 2018-2022 provides for the necessary inclusion of environmental issues in the school context and defines the institution's mission as:

Promote excellent professional, scientific and technological education, through the integration of teaching, research and extension, with a focus on training citizens committed to **sustainable human, economic, cultural, social and environmental development** (IFRO, 2018, p. 33, emphasis added, our translation).

Furthermore, PDI/2018-2022 expresses attention to sustainability, an area in which it seeks to act as an “agent of social, economic, cultural and environmental transformation of excellence” (IFRO, 2018, p. 34, our translation).

The locus of the dialogical experience was the Guajará-Mirim *Campus*, which is located in a strategic point to constitute a powerful space for plural dialogues in the construction of new socio-environmental knowledge. The *Campus* was built in a region of traditional territory of the Wari 'people, whose presence is notable in the region. In addition to the Wari ' people, we

also have the presence of the Macurap, Jaboti, Canoé, Wajurú, Tupari, Arowá, Cabixi, Uru-Eu-Wau - Wau, Massacá, and Aricapú ethnic groups.

Thus, we seek to promote approaches to thinking within the universe of knowledge of indigenous peoples, through speeches by indigenous authors, as well as promoting the construction of spaces for socio-environmental dialogues with invited indigenous leaders, students and employees of IFRO, *Campus Guajará-Mirim*. The participating subjects were identified as: Student (E); Collaborating Server (SC); Guest Professor (PC); Indigenous Leadership (LI). We added numbers to differentiate each one.

These moments of exchange and production of knowledge provided through the research previously mentioned at the beginning of this article, took place from April to June 2021, totaling six meetings held remotely through the *Google Meet platform* due to the COVID-19 pandemic. Throughout the research period, several productions by indigenous and non-indigenous authors were shared with participants, warning about the seriousness of the issues discussed, especially climate change.

Eight students from the Biology and Chemistry Degree courses at the Federal Institute of Education, Science and Technology of Rondônia, *Campus Guajará-Mirim*, kindly accepted our invitation to take part in our investigation. Seven employees from that institution collaborated with us, two of whom were environmental educators (teachers who incorporate the environmental dimension into their pedagogical practices), all showed interest in the emergence of the proposed questions. We also had the essential collaboration of three indigenous leaders from the Wari', two from the Oro Waram subgroup, and one from the Oro Mon subgroup, and an indigenous leader from the Tupari people who were fundamental to the development of dialogical and reflective actions.

The methodology used for these moments of construction and sharing of knowledge consisted of conversation circles lasting approximately 1 hour and 30 minutes, mediated by the researcher, enabling the listening of voices from different places of speech, thus, we sought to bring together and intertwine indigenous and non-indigenous worlds to build socio-environmental knowledge, to reflect on climate change, seeking to recognize other more ecological and respectful ways of living, contributing to the formation of subjects who have a more integrated and environmentalist conception of the world, as stated by Rodrigues (2021, p. 265, our translation),

We see that channels of dialogue must be opened with traditional peoples. This is so that we can learn from their knowledge and practices and rethink this

knowledge and practices for our environmental realities. We have to focus on listening and welcoming the knowledge of the “other”.

Kerexu and Julião, (2023, p. 7, our translation), point out that: “ for us, indigenous peoples, respecting nature means ensuring balance in all phases and contexts of our lives.” In this line of thought, we present, below, one of the indigenous voices echoed in the dialogues that sensitively reveals this deep link with nature:

We love nature, animals, we are part of, we seek to respect all ecosystems. We have to trace these two knowledges: indigenous and non-indigenous. We, indigenous peoples, have another way of relating to nature, we need to join forces to face the difficulties we are experiencing today. [...] Before, we lived more peacefully, in harmony with nature, we hunted, fished for food. I understand that we need to study more about traditional knowledge in this general context of crisis, I consider it important that the Federal University of Rondônia and the Federal Institute of Rondônia get closer to indigenous peoples, visit indigenous communities, map the lands indigenous people, have a lot of dialogue with indigenous communities (LI3, Wari 'leadership, Waram subgroup, our translation).

From this perspective, to combat climate change, it is essential to form alliances between all peoples, as revealed by the Wari 'leadership', Due to their integrated ways of living, established in collectives, respect, connection and harmony with the Earth, the original peoples represent a power and assume a leading position. Medeiros and Guimarães (2020, p. 124, our translation) recognize that: "we therefore need to move forward in consolidating this partnership with indigenous peoples in daily environmental education actions, even recognizing that they are our preferred partners in environmental preservation."

Regarding the relationship of the Wari ' people with nature, Waram (2019, p. 42, our translation) highlights:

The Wari ' always sought to appropriate new spaces to learn how to deal with the new territory, according to information collected from the knowledgeable Tatoyi Oro Mon, an elder with notorious traditional-cultural knowledge. We can relate the Wari ' as friends of nature as they did not burn the forests and created small gardens as they had great respect for nature, living on subsistence food for themselves.

Native peoples have a respectful, strong and deep connection with nature, they understand themselves as part of it, they encourage us to recognize more ecological and healthy ways of being on the planet. Their traditional ways of living are in opposition to globalized capitalism, given that these people have an integrated understanding of life and do not recognize

the human/nature dichotomy that has been widespread since the beginning of Modernity. As Medeiros and Guimarães (2022, p. 124, our translation) point out:

We know that native peoples are, more than anyone else, aware of their physical and mainly cosmological dependence in their relationship with nature, from which they do not seek to distance themselves, as the logic of modernity has culturally done. On the contrary, they feel and are an integral part of it, and due to this way of being nature, they develop ways of using it rationally.

Integrated and fundamentally ecological ways of understanding the existence of original peoples can help us in building a new conception of the world. Their voices have echoed with strength and have gained prominence in discussions about the climate, such as in the “Conference of the Parties” (COP 26).

In this chain, at the “United Nations Framework Convention on Climate Change”, the most important international event on climate, was silent before the powerful voice of “Txai Suruí”, a young indigenous, Brazilian activist, from the Suruí people, from the state of Rondônia. This young woman was the first indigenous person to speak at the opening of a climate conference, in November 2021, in Glasgow, Scotland; Her words, echoed at the event, are recorded in the work “Amazon Youths: A call for mobilization” organized by the Sustainable Amazon Foundation (FAS) (2022), in which Txai Suruí reveals:

My people have lived in the Amazon for around 6,000 years. My father [...] taught me that we should listen to the stars, the moon, the animals and the trees. Today, the climate is warming, animals are disappearing, rivers are dying, and our plants don't flourish like they used to. The Earth is speaking, and it tells us that we no longer have time (Suruí. In: FAS, 2022, p. 31, our translation).

The voice of Txai Suruí points to the great challenge that indigenous communities have in keeping the forest standing, biodiversity as being a great treasure for humanity, and that is why it highlights that it is necessary to act to change.

The aforementioned work also records the voice of Alessandra Munduruku Karop, born in Itaituba, Pará, a reference in the fight to defend indigenous territories in Brazil, wisely points out to us:

The planet cannot live only in drought, the planet also needs to know that we are the environment, that we are on the front line to defend the environment, because, if it weren't for us, the indigenous peoples, there would no longer be any park, no fauna, no territory to fight (Karop. In: FAS, 2022, p. 31, our translation).

Climate change leads all beings to a condition of risk and global threat, placing, in particular, indigenous peoples in a situation of extreme vulnerability, given that their ways of life have an intimate and deep connection with nature. Their ancestral knowledge combines ecological knowledge and traditional customs in the management of natural resources in the territories, harmonizing a relationship of harmony and intimacy with the environment of which they recognize themselves as part. In this way, Kerexu and Julião, (2023), consider that for a long time, nature has shown signs that human actions against the natural balance are reaching unbearable proportions for the continuity of our existence.

The following voices reveal to us that such changes, in addition to altering the climate, compromise people's culture and ways of life:

WE, INDIGENOUS PEOPLES, have been talking for a long time about the changes that could happen if we did not pay attention to the environment we are in, observing our actions and correcting them and/or improving practices. [...]. Climate change is occurring. If we ask older people about the rainy and dry seasons, they will certainly say that there have been changes in recent times. There is no way to know “right”. In Mato Grosso, in the areas where our villages are located, to the east, close to Rio das Mortes, a decade ago, the rains used to start at the end of October and end in March. The end of the rains seemed similar to the rainy season in Rio de Janeiro, as Vinícius de Moraes sings in *Águas de Março*: it's wood, it's stone, it's the end of the path, it's a stump... it's the waters of March closing summer... We know that climate change is linked to the form of development and progress. A social and cultural transformation is necessary to restructure the information and education system [...] (Idioriê, 2018, p. 25-26, our translation).

For us, it is history that regulates the climate, which was previously regulated. We knew the arrival of summer and winter. Today we are losing many crops because it rains when it's dry and there's drought when it rains. New diseases are emerging through global warming. We are feeling pain, dizziness, shortness of breath and tiredness. The rivers are acting strangely, they no longer communicate with us. As a result, the fish population has fallen and some species have disappeared. Environmental changes have even altered the taste of food. Only when the rivers flood do they return to their normal taste. But it is increasingly rare to see rivers at the right level. Wild animals are increasingly scarce, just as the rivers no longer have an abundance of fish (Constant, 2018, p. 42, our translation).

Today, around the world, in indigenous and non-indigenous society, due to changes in the climate, people are dying, too much sun, too much heat, too much rain, too much thunder. These are signs from nature. We feel this context. We try to work on these issues with students [...]. The areas of greatest preservation today are indigenous lands, we need to preserve them like this (LI3, Wari 'leadership, Waram subgroup, our translation).

Contact with our nature, with the environment where we live, how we should relate, knowing the phases of the moon, the rainy season, today a lot has changed with the changing climate, so all of this is knowledge that comes

passing from generation to generation [...] (LI1, Wari 'leadership, Oro Mon subgroup, our translation).

Because the destructive progress that kills, that destroys, that ends nature, this means is not useful for us. For example, planting only soybeans in my territory is something that will destroy the soil, the trees that I need, because for me to live solely on soybeans, is it worth it? Is it worth living off cattle alone? (LI2, Tupari indigenous leadership, our translation).

Before, when the Wari ' went to farm there was a ritual to be followed, today it is very difficult to carry out traditional practices because of the heat. Even hunting is disappearing, to get food you have to stay in the forest for a long time (LI1, Wari 'leadership, Oro Mon subgroup, our translation).

Faced with threats to their ways of living and all forms of life that inhabit the planet, these people stood up to fight against climate change, in defense of life, and invite us to join forces, form alliances to postpone the end of the world (Krenak, 2020).

Nowadays, we live in an extremely critical period for the planet and for all the life forms that inhabit it. At this time when human intervention on Earth is so violent, it has geological force and has the capacity to change the geology and ecology of the planet we share, the original peoples encourage us to think about other possible realities, more ecological and healthy ways of life, as stated by Guimarães and Medeiros (2016, p. 53-54, our translation), “we believe that pedagogical coexistence with other epistemological references, such as the ancestral worldviews of indigenous societies, has great potential in this moment of crisis, in which we need to fertilize and sow other ways of living among us and with nature.”

In this train of thought, in the words of Munduruku (2018, p. 31-32, our translation),

Climate change for the Munduruku people is considered a major problem for the way of life of our people, taking into account the interference that it causes in the natural process of the cycle of seasons of the year, impacting various aspects of traditional agriculture, artisanal fishing, as well as activities linked to food production. We believe that everything is interconnected with nature. Our people believe that over time nature has led us here, sending us to knowledge about time, space and the life cycle of beings in the world, and, in this way, we are concerned with the environment in which we live in front of the critical situation that we see happening in recent times.

Climate change is already a reality of our time, although they are in the group that contributed least to the climate crisis, as their ways of life have a strong connection with the land, indigenous peoples are those who find themselves in a situation of greatest vulnerability in the face of the impacts and consequences of climate change: their forms of existence are at risk, their food base is being compromised, their forms of orientation in time and their cultures are threatened. We find this analysis in Kerexu and Julião, (2023, p. 9, our translation),

Perhaps we, indigenous peoples, are talking about a climate emergency because we have been experiencing this emergency in our territories for some time. While this issue is still perceived as something distant by non-indigenous society, it is already felt very strongly in our territories, issues that are visible to the naked eye, such as landslides, excessive rain, little rain or none at all. These drastic changes end up directly affecting the way of life of our people, who live their traditional ways according to nature's time, from practical issues to more cosmological ones.

Pazos and Sorrentino (2022) conceive the urgency of changes in the production and consumption patterns of rich populations, the introduction of strategies from the perspective of sustainability in the commercial and transportation spheres, the production of clean and renewable energy, the protection of different forms of life and cultures highlight sustainability in models maintained by women and indigenous peoples, commit to education for climate justice.

Medeiros and Guimarães (2022) argue that immersion and coexistence with traditional knowledge can teach us a lot, given its pedagogical character of experiencing other relationships based on other paradigmatic references, which reveal our world and place us in different practices.

From this perspective, dialoguing from local and national voices brought us inspiration to rethink our habits and ways of living, enabling significant moments of reflection, as can be seen in the statements of the participating students:

We have a lot to learn from each other, we have a lot to learn from indigenous peoples! (E4).

I think it is an extremely relevant and important topic to bring indigenous knowledge to academia. I think it is extremely important when our indigenous brothers are present in the academy. [...] How much wealth can indigenous' peoples, traditions, teach us (PC3).

We see how these climate changes are impacting the forest, some birds that inhabited a certain region are no longer there, they are disappearing. And the rainy season is changing as a result of fires and incorrect management practices that promote large-scale deforestation and excessive use of pesticides. It caught my attention when the indigenous leadership said that even the harvest was changing as a result of these climate changes (E3).

These leaders brought very relevant testimonies. This conversation circle, in my opinion, was one of the most relevant, most constructive moments of all the meetings I participated in, listening to the leaders was wonderful. (SC2)

We see that with each passing day more and more consequences of capitalism occur, people end up being affected, such as indigenous peoples (E8).

Recognizing the importance of the knowledge of indigenous peoples for EA, promoting approaches to this rich universe of knowledge, through listening and exchanging knowledge, constitutes a power in the necessary process of reinvention of educational practice to raise awareness and raise awareness about changes climate change and its implications, in the discovery of new paths for the construction of other possibilities for more harmonious and respectful coexistence towards all other forms of life. According to Guajajara (2019, p. 211), “in addition to dealing with the challenges of Modernity, we, indigenous peoples, are holders of various and precious traditional knowledge”.

Indigenous populations have a deep understanding of ecosystems, their cultural practices are aligned with environmental conservation, which makes them valuable and necessary allies in the fight against climate change, and should occupy a leading role as highlighted by Medeiros and Guimarães (2022, p. 132, our translation),

[...] Therefore, in our view, environmental education has a lot to learn from the knowledge of these peoples, which means effectively establishing intercultural relations in a position to learn from them, reversing the logic of coloniality, which for centuries imposes the models of Western logic to these people.

In this sense, learning from these voices that echo in the fight against the climate crisis, in defense of the forest, for the preservation of ecosystems, experiencing non-Eurocentric, non-mercantilist ways of perceiving the world can help to broaden understanding about the severity of the climate emergency and the urgency of breaking current production and consumption patterns. We believe according to Medeiros and Guimarães (2022) that building relationships with indigenous peoples and their traditional knowledge can significantly contribute to the implementation of Critical Environmental Education capable of contributing to the adaptation and mitigation of the effects of climate change.

Final remarks

We recognize that it is essential to develop environmental education actions to combat climate change, and we also understand that this process must be carried out collectively, in a participatory manner, involving and engaging local communities, governments and society as a whole. We see that climate risk already represents a reality for all humanity and that ensuring a chance for the future, for the continuity of life on the planet, requires breaking with the current

capitalist system and its insatiable desire for accumulation that exploits and degrades life and that produces the climate changes.

Based on dialogues with the voices of indigenous peoples and the reflexive outcomes generated, we seek to promote the construction of collective spaces of socio-environmental knowledge about climate change and its consequences at the IFRO Guajar-Mirim *Campus*, enhancing awareness and awareness among the subjects involved, from an ecological perspective.

Considering new approaches, which lead us to the indispensable transitions, requires the inclusion and union of all peoples, with the original peoples being protagonists in these discussions, given that their traditional ways of living are aligned with socio-environmental sustainability, their voices have long warned us about the dangers and threats of a society guided by market logic that has caused the warming and degradation of life on the planet.

Therefore, we believe in the importance of promoting dialogues and experiences with indigenous peoples and their traditional knowledge, in what Guimares (2022) calls pedagogical coexistence, so that we can effectively become allies in this fight in defense of the climate in defense of the planet, a fight that must belong to everyone. May their voices echo ever more strongly and occupy decision-making spaces and may we non-indigenous people be sensitive and attentive to learn from these peoples to respect the planet we share.

This collective construction movement provided the active participation of the subjects involved, boosting awareness, contributing to the dissemination of positive values regarding the preservation of the environment, as well as the appreciation of traditional indigenous knowledge.

We understand that the school is a place for the production of knowledge to mobilize thinking that is averse to destruction, to the hardened strata that seek to maintain an economic system that degrades life on the planet. In critical, dialogical, transformative environmental education, which involves and emancipates to face materialized crises, at the same time that it builds ecological sensibilities, we recognize a mobilizing force for reinvention in educational practice, capable of promoting changes, awakening to more harmonious, ecological, and supportive forms of coexistence.

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CRediT Author Statement

Acknowledgments: We thank all the original peoples, especially the Wari' and Tupari peoples. We thank the Federal University of Rondônia. We thank the Federal Institute of Education, Science and Technology of Rondônia.

Funding: The research did not receive funding.

Conflicts of interest: There are no conflicts of interest.

Ethical approval: The work respected all ethical procedures during the research. The research was submitted and approved by the Human Sciences Research Ethics Committee of the Federal University of Rondônia (PARECER CAEE: 36948420.3.0000.5300) and the Human Sciences Research Ethics Committee of the Federal Institute of Education, Science and Technology of Rondônia (PARECER CAEE: 36948420.3.3001.5653) .

Availability of data and material: The data and materials used in the work are available for access according to the references in the article, as well as, partially, in the Dissertation:

On the banks of the Mamoré river: interweaving threads of socio-environmental and indigenous knowledge in the initial training of school teachers of biology and chemistry.

Author contributions: The main author wrote the manuscript, the other authors contributed to the writing and review of this article.

Processing and editing: Editora Ibero-Americana de Educação.
Review, formatting, standardization, and translation.

