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### Environmental protection in tax reform and constitutional amendment no. 132

Protection of the environment in tax reform and constitutional amendment no. 132

# Bruno Mendes Figueiredo1 Maycon Raulino Coelho2

#### **SUMMARY**

Environmental protection is a growing concern worldwide, and in Brazil, this issue has gained prominence in various spheres, including tax law. Thus, Constitutional Amendment No. 132, recently approved in 2023, proposes a series of changes to tax legislation aimed at promoting environmental sustainability. This article analyzes the implications of this amendment in the context of Brazilian tax reform, highlighting how the proposed changes can contribute to environmental protection. The need to align tax policies with sustainability objectives is urgent, given the substantial impact of economic activities on the environment. Tax reform, by incorporating sustainability principles, acts as one of the guarantors of environmental well-being in the country.

Furthermore, analyzing the environment as a whole within the broader context is important in this investigation, as are climate concerns in the country. The overall objective of this study is to analyze Constitutional Amendment No. 132 in the context of Brazilian tax reform, assessing its implications for environmental protection and the promotion of sustainability. The research will be conducted through a qualitative analysis, utilizing a literature review of legislative sources, and will examine texts of the constitutional amendment, related laws, and academic articles that discuss the relationship between taxation and the environment. Furthermore, the analysis is expected to reveal how Constitutional Amendment No. 132 integrates sustainability principles into tax reform, promoting tax incentives for environmentally responsible business practices and penalizing polluting activities. Implementing these measures can result in greater preservation of natural resources.

Furthermore, the research can identify challenges and opportunities in the practical application of the new tax guidelines, providing further discussion on the topic in relation to environmental benefits. This study will contribute to the academic and legislative debate on the intersection of taxation and sustainability in environmental protection.

Keywords: Environment. Tax Reform. Constitutional Amendment No. 132.

Climate Concerns.

## **ABSTRACT**

The protection of the environment is a growing concern worldwide, and in Brazil, this issue has gained prominence in various spheres, including the fiscal one. Thus, Constitutional Amendment No. 132, recently approved in 2023, proposes a series of changes in tax legislation aimed at promoting environmental sustainability. This article aims to analyze the implications of this amendment in the context of Brazilian tax reform, highlighting how the proposed changes can contribute to environmental protection. The need to align fiscal policies with



<sup>&</sup>lt;sup>1</sup> Bruno Mendes Figueiredo is a Master's student in Law from Unifieo (Unifieo), specializing in Administrative Law and Tax Law, and holds degrees in Law, Philosophy, and Mathematics. He is a university professor at Florence University Center, where he has served as coordinator of undergraduate and graduate programs. (Lattes ID: 2682466483000845)

<sup>&</sup>lt;sup>2</sup> Maycon Raulino Coelho holds a Master's degree in Law from Unifieo (Unifieo). He specializes in Tax Law and Constitutional Law. He was a university professor at the Florence University Center and is currently an advisor to the State Public Prosecutor's Office. (Lattes ID: 2575019419675344)

sustainability objectives is an urgent premise, given the substantial impact of economic activities on the environment. Tax reform, by incorporating sustainability principles, acts as one of the guarantors of environmental well-being in the country. Furthermore, the analysis of the environment as a whole in the general scenario is important in this investigation, as well as the country's climate concerns. The general objective of this study is to analyze Constitutional Amendment No. 132 in the context of Brazilian tax reform, evaluating its implications for environmental protection and the promotion of sustainability. The research will be conducted through a qualitative analysis, utilizing a bibliographic review of legislative sources, examining texts of the constitutional amendment, related laws, and academic articles discussing the relationship between taxation and the environment. Furthermore, it is expected that the analysis will reveal how Constitutional Amendment No. 132 integrates sustainability principles into tax reform, promoting tax incentives for environmentally responsible business practices and penalizing polluting activities. The implementation of these measures may result in greater preservation of natural resources. Additionally, the research may identify challenges and opportunities in the practical application of the new tax guidelines, offering more discussion on the topic concerning environmental benefits. This study will contribute to the academic and legislative debate on the intersection between taxation and sustainability regarding environmental protection.

Keywords: Environment. Tax Reform. Constitutional Amendment No. 132. Climate Concerns.

#### 1 INTRODUCTION

Environmental protection is a growing concern worldwide, reflecting the urgency of adopting measures that mitigate the impacts of human activities on ecosystems, and in Brazil, this issue has gained prominence in several spheres, including tax.

Thus, Constitutional Amendment No. 132, of December 20, 2023, is an example recent attempt to integrate environmental sustainability into the country's tax legislation, and it proposes a series of significant changes, seeking to promote economic practices that respect and preserve the environment.

It proposes, among other measures, the creation of tax incentives for companies that adopt environmentally responsible practices, thus, these measures have the potential to transforming the behavior of companies and consumers, promoting an economy greener and more sustainable, however, the effectiveness of these measures depends on implementation monitoring compliance with these actions.

Given this scenario, this article aims to analyze the implications of this amendment in the context of the Brazilian tax reform, and the research will be conducted using a qualitative method, through bibliographical and legislative sources, thus highlighting how the proposed changes

can contribute to environmental protection. Therefore, the general objective of this study is to analyze its implications for environmental protection and the promotion of sustainability.

The need to align fiscal policies with sustainability objectives is a urgency, given the environmental impact of economic activities on the environment. The emission of pollutants, deforestation, unbridled exploitation of natural resources and other human activities have caused irreversible damage to the planet.

In this context, tax reform emerges as one of the instruments for promote sustainability. By incorporating sustainability principles, tax reform constitutional acts as one of the guarantors of environmental well-being in the country, encouraging more sustainable business practices and consumption behaviors.

The analysis of the environment as a whole in the general scenario is necessary in this research. Brazil, being one of the countries with great biodiversity, faces challenges in terms of environmental protection. Furthermore, climate concerns also deserve to be highlighted in this research, because through these impacts and measures such as reform are taken.

It is hoped that the analysis of Constitutional Amendment No. 132 can foster debates on the topic, offering more discussion on the subject due to the relevance of everything related with environmental benefits, as the well-being of all species depends on it, especially human for this study, without reducing the importance of environmental protection as a whole.

This study aims to contribute to the academic and legislative debate on the intersection between taxation and sustainability, in promoting environmental protection. When analyzing the implications of Constitutional Amendment No. 132, it is expected to provide subsidies for further discussion about contemporary environmental challenges, highlighting that climate concerns move the country's scene in all spheres.

#### **2 THE ENVIRONMENT**

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The environment, in its complexity and importance, has become a central theme in global discussions, reflecting growing concerns about sustainability, changes climate change and conservation of natural resources, and throughout the world, there is a growing recognition increasing recognition that human health and prosperity are intrinsically linked to the health of the environment, and within this scope, global perspectives on the environment are varied, encompassing urgent challenges and opportunities for meaningful action.

It is worth noting that, although scientific research on global warming dates back to the 1890s, when Swedish scientist Svante Arrhenius demonstrated in a paper the influence of carbon dioxide on the greenhouse effect, it is considered that discussions on the global warming in the public sphere began in the late 1980s and early 1990s 1990, and this period also marked the beginning of discussions on globalization by social scientists, however, in general, these discussions occurred in parallel: globalization sparked immediate interest among humanists and social scientists, while global warming global, despite having been addressed in several books published in the 1990s, only became a public concern in the first decade of the 2000s3

Machado and Garrafa4 argue that exploring future perspectives is a frequent theme, because the survival of humanity is intrinsically linked to the progress of life and the preservation of the planet's natural resources, and in view of this, address the protection of generations future also implies discussing responsibilities related to the preservation of lives that are to come, and modern society has separated the natural order from the human order, as if beings humans were not part of nature, creating the utopian idea that nature is merely a means of supplying human needs and should therefore be subject to the laws of reason, and during the eighteenth and nineteenth centuries, it was indisputable that human beings, through domination of science, technology, art and philosophy, had the ability to control natural phenomena that could harm progress, and thus, it was believed that science, technology, progress and rationality were the fundamental elements that would ensure a more free and human, therefore, advancement in practical and theoretical knowledge was essential for freeing human beings from natural laws, using nature as a means to achieve human happiness.

Consequently, the promise of modern science turned out to be a threat to nature and to human beings themselves who sought to exercise their dominion, and the incessant search for novelty and the overuse of natural resources have raised concerns about the decrease and limitation of these resources on the planet, and the advancement of industry and technology brought benefits to humanity, but also promoted the idea that natural resources

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FLEURY, LC; MIGUEL, JCH; TADDEI, R. Climate change, science and society. **Sociologias Journal,** 21, https://www.scielo.br/j/soc/al/ n. 51, p. 19, 2019. Available in: SHRnFKJmJdF7pmQkCBXt6hb/. Accessed on: July 11, 2024.

<sup>&</sup>lt;sup>4</sup> MACHADO, ILO; GARRAFA, V. Protection of the environment and future generations: bioethical developments and reflections. **Revista Saúde em Debate,** v. 44, n. 124, p. 264, 2020. Available at: https://www.scielo.br/j/sdeb/a/gwqC4w64RTNh7PJDQHgqdNF/. Accessed on: July 12, 2024.

could be used without restrictions and that the consequences could be resolved through of new technologies, therefore, this proved to be unfeasible and, on the contrary, generated several uncertainties about the future, and climate change, caused by human activity in nature, have also been a cause for great concern, as development uncontrolled ended up altering the life and habitat of many species, and these facts require a adaptation of human lifestyle, with a focus on sustainability5.

Climate change represents one of the greatest challenges facing the planet currently, rising temperatures, rising sea levels, extreme weather events and ocean acidification are just some of the visible consequences, so the urgency in reducing greenhouse gas emissions and transitioning to renewable energy is widely recognized as crucial to mitigating the impacts of climate change and ensure a sustainable future.

On these issues, Blank6 points out that historical reports indicate that the concentration of carbon dioxide, the main greenhouse gas in the atmosphere, increased from 280 ppm to 379 ppm (ppm = parts per million) since the Industrial Revolution, and the reasons Pointed to this increase include the burning of fossil fuels and changes in the use of the soil, such as the advancement of agriculture and deforestation, thus, between 1970 and 2004, there was a an 80% increase in greenhouse gas emissions, especially carbon dioxide, and reports establish that by 2050, emissions must be reduced by 50% to 85%, with based on quantitative data from 2000, and the costs of these efforts would be 3% of world GDP by 2030, thus, alarming predictions include an increase in global average temperature between 1.8°C and 4°C by 2100, the melting of glaciers and polar ice caps, and the rise in global warming. of the oceans accompanied by tropical storms and hurricanes, and for Brazil, the forecasts indicate that, in the worst case scenario, the temperature increase could reach up to 4°C in the interior of the country and up to 3°C on the coast, and for the extreme north of the planet, forecasts point to an increase temperature of 7.5°C in the most dramatic scenario, and as for rainfall, reports indicate

https://www.scielo.br/j/mercator/a/SgzwvyFQvzynyM8ZhdtRzjr/#:~:text=Os%20relat%C3%B3rios%20trazem Alarming forecasts for tropical storms and hurricanes. Accessed: July 10, 2024.



<sup>&</sup>lt;sup>5</sup> MACHADO, ILO; GARRAFA, V. Protection of the environment and future generations: bioethical developments and reflections. **Revista Saúde em Debate**, v. 44, n. 124, p. 264, 2020. Available at: https://www.scielo.br/j/sdeb/a/qwqC4w64RTNh7PJDQHgqdNF/. Accessed on: July 12, 2024.

<sup>&</sup>lt;sup>6</sup> BLANK, DMP The context of climate change and its victims. **Mercator Magazine,** v. 14, n. 2, p. 160, Available 2015

that the northern hemisphere should have a 10% to 20% increase in volume, while in the southern hemisphere south there should be a proportional decrease.

In addition to climate change, biodiversity loss is another concern fundamental, with the destruction of natural habitats, the excessive exploitation of natural resources and pollution have contributed to the alarming decline in biological diversity across the world world.

Corroborating the above, Artaxo7 points out that the functioning of ecosystems is being widely affected by climate change, both at global and regional and local. In tropical forests, changes related to the increase in biomass production, tree mortality, changes in distribution and abundance of species, as well as the occurrence of fires, all influenced by the increase in carbon dioxide atmospheric carbon, and due to the synergistic effects of land use changes, deforestation and fragmentation and degradation of Brazilian biomes, the vulnerability of our biodiversity and ecosystems increases, putting biological diversity and associated ecosystem services, thus, these changes are so significant that the scientific community considers this era as a new geological era, called Anthropocene, characterized by the profound transformation of our relationship with nature, from this Therefore, it is extremely important to develop a science that contributes to the building a sustainable society in the coming decades, reconciling the preservation of environment with economic development and social justice.

Water resource management is another critical aspect of environmental perspectives global, and water scarcity in many regions of the world, exacerbated by overuse and due to pollution, represents a growing challenge for agriculture, industry and food supply public.

In this context, Jacobi, Empinotti and Schmidt8 state that we live in a scenario of growing unsustainability in relation to water, marked by two main aspects: the increase in climate disasters, such as droughts and floods, and the contamination of watercourses,

<sup>1</sup> billion people increasingly affected by medical stress. Accessed: July 10, 2024.



ARTAXO, P. The three emergencies facing our society: health, biodiversity and climate change. Advanced Studies Journal, v. 100, 2020. Available at: https:// 34, www.scielo.br/j/ea/a/TRsRMLDdzxRsz85QNYFQBHs/. Accessed on: July 10, 2024.

<sup>&</sup>lt;sup>8</sup> JACOBI, PR; EMPINOTTI, VL; SCHMIDT, L. Water scarcity and human rights. **Environment & Society Journal,** 10, https:// 2016. www.scielo.br/j/asoc/a//-Available cCsMrCww5SYJDPmhbCBDw4m/?lang=pt#:~:text=Attuário%20mais%20de

which makes the supply of drinking water to the global population increasingly expensive.

This pollution is a result of the expansion of the economy and the productive practices that drive the development of countries, in addition to the extraction of natural resources and persistence in exploration and expansion of fossil energy, such as fracking to obtain gas.

Currently, more than one billion people, which represents about one in seven inhabitants of the planet, face a lack of adequate access to drinking water, and in the future next, more than 40% of the world's population will live in regions increasingly affected by water stress, and hydrologists predict that if this trend continues, freshwater will face a double pressure: on the one hand, population growth driven by practices intensive consumption, resulting in a greater demand for food and energy; on the other hand hand, the impact of climate change, thus, approximately 80% of the world's population is under serious threat regarding water security, according to IPCC indicators, that consider water availability, water demand and contamination, thus, It is important to emphasize that a significant portion of the global population does not have access suitable for basic sanitation, and furthermore, about 1/5 of the aquatic systems that sustain ecosystems and provide resources for a growing population are being affected and threatened, with rivers, lakes and aquifers drying up or becoming too polluted to be used9.

In the field of international politics, environmental agreements and conventions are important frameworks for environmental protection. In this sense, Oliveira10 points out that after years of resistance and little effectiveness in tackling climate change under the Kyoto Protocol, in 2015 was established the Paris Agreement, which came into force in 2016, and this agreement represents a bottom-up approach, completely opposite to its predecessor, thus, it seeks address an urgent global environmental problem through each country's domestic policies, through the so-called Nationally Determined Contributions (NDCs), promoting the differentiation for all, and in this way, the Paris Agreement undermines the principle of

<sup>&</sup>lt;sup>10</sup> OLIVEIRA, AS The Leadership of Developed Countries in the Paris Agreement: reflections on the Naming and Shaming strategy within the Global Balance. **Revista Sequência**, v. 81, p. 160, 2019. Available at: https://www.scielo.br/j/seq/a/VszwLSFvHnTgbrcCHJfvsdb/?lang=pt. Accessed on: July 11, 2024.



<sup>&</sup>lt;sup>9</sup> JACOBI, PR; EMPINOTTI, VL; SCHMIDT, L. Water scarcity and human rights. **Environment & Society Journal,** 10, https://www.sci@lo.br/j/asoc/ n. 1, p. 3, 2016. Available in: a/cCsMrCww5SYJDPmhbCBDw4m/?lang=pt#:~:text=Attuário%20mais%20de 1 billion people increasingly affected by medical stress. Accessed: July 10, 2024.

common but differentiated responsibilities and respective capabilities, as established in Framework Convention on Climate Change, moreover, it represents the triumph of strategy of the United States, which later also withdrew from the agreement.

Meanwhile, the Convention on Biological Diversity (CBD), established during the United Nations Conference on Environment and Development, ECO-92, in Rio of January, organized by the United Nations (UN), paved the way for the claiming intellectual property rights over traditional knowledge, and during ECO-92, held in June 1992, the CBD was signed by 150 countries, and more than 160 countries ratified the agreement, which came into force in December 1993, thus the Convention aims to promote the sustainable use, conservation and equitable sharing of benefits derived from biodiversity, in addition to establishing actions to be taken by countries to preserve their biodiversity, including dissemination and information to the population on national natural resources, the creation of laws to define access to resources genetics, and working together with other parties to the Convention to achieve its objectives11.

The future prospects of the environment necessarily depend on collective action and the political will of all countries, thus, local, national and global initiatives are essential to effectively address environmental challenges, including not only policies robust environmental regulations, but also public education, economic incentives for sustainable practices and environmentally oriented technological innovation.

In short, the environment is an issue that transcends borders and requires a collaborative participation of all sectors. The perspectives in the world vary in challenges, and in Brazil, Constitutional Amendment No. 32, regarding tax reform, was innovative when it was concern for the environment and highlighting the principle of sustainability.

## 3 TAX REFORM THROUGH CONSTITUTIONAL AMENDMENT NO.

132



<sup>&</sup>lt;sup>11</sup> BRUNO, SF; MATTOS, UAO Benefits of biodiversity for traditional communities: does the new legislation support them? **Revista Ciência Florestal,** v. 31, n. 2, p. 1010, 2021. Available at: https://www.scielo.br/j/cflo/a/T3wNVDmM3Q9PfThDm9RKy3q/. Accessed on: July 12, 2024.

Traditional history, which is characterized by the study of major events, generally divides human existence into distinct periods, marked by discontinuities, and this also applies to the History of Law, and this time, the National Tax Code completed more than fifty years of existence, representing an important milestone for Law Brazilian tax, and throughout its validity, taxation activity faced different political moments and significant social experiences, remaining as an instrument solid and resistant legal, playing a relevant role in society, and since its promulgation, however, there were desires for reforms in taxation methods and instruments, which is understandable, considering the diversity of socioeconomic situations that require the adoption of distinct political-legal actions, evolving according to new demands and social needs, and thus, understanding the reasons and history of taxation is fundamental so that the tolerable limits that each society is willing to support can be assessed terms of taxation, and in a modern conception, it is undeniable that there is no State without taxation12.

It was only at the end of the 18th century that taxation began to receive greater attention from influential European and American politicians, economists and financiers, when they began to demonstrations and concerns arise regarding a fairer and more just collection system rational, and in view of this, the idea of tax reform cannot be seen as a phenomenon contemporary, moreover, throughout history, there have always been changes in criteria and tax collection procedures, with more or less significant advances in protection of individual rights, and also with some setbacks, and thus, the reformist paradigm does not is something new, but rather the motivations that drive these changes, and while in the past many fiscal advances have occurred as a result of discussions about the legitimacy or increase in high tax burdens, currently the proposed modifications aim to adapt the tax demanded by the States to the compensation offered to taxpayers, and in other words, the aim is to achieve social justice through tax reforms13.

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<sup>&</sup>lt;sup>12</sup> MACHADO, CH; BALTHAZAR, UC Tax Reform as an Instrument for Implementing Distributive Justice: a historical approach. **Revista Sequência**, v. 77, p. 240, 2017. Available at: https://www.scielo.br/j/seq/a/664hwkfyJhNps84R4XgvgBh/. Accessed on: July 9, 2024.

<sup>&</sup>lt;sup>13</sup> MACHADO, CH; BALTHAZAR, UC Tax Reform as an Instrument for Implementing Distributive Justice: a historical approach. **Revista Sequência**, v. 77, p. 251, 2017. Available at: https://www.scielo.br/j/seq/a/664hwkfyJhNps84R4XgvqBh/. Accessed on: July 9, 2024.

Constitutional Amendment No. 32 (EC 132) is important in the environmental scenario. Analyzing the reform, with regard to the environment, it is observed that environmental defense, already the principle of economic activity of article 170, VI, also becomes one of the five principles of the national tax system, alongside simplicity, transparency, justice tax and cooperation, article 145, §3. Therefore, both the application of tax rules in regulations regarding executive management must incorporate principles of environmental sustainability.

Significantly, in terms of taxation, the amendment raised concerns about the climate change to the constitutional text, for example: the granting of regional incentives which, whenever feasible, will take into account criteria of environmental sustainability and reduction carbon emissions, article 43, §4, and similarly, in the allocation of resources from National Regional Development Fund, projects that include actions will be prioritized environmental sustainability and reduction of carbon emissions, article 159-A, §2.

Furthermore, section VIII was added to paragraph 1 of article 225, stipulating that it is up to the Public Authorities to maintain a favorable tax regime for biofuels and low-carbon hydrogen, as established by supplementary law. This aims ensure that these fuels are taxed at a lower rate than that applied to fossil fuels, promoting a competitive advantage in relation to them.

This time, article 19 of Constitutional Amendment 132 determines that tax incentives for the production of vehicles will apply only to those equipped with an electric motor capable to propel the vehicle exclusively with electric energy, allowing the combination with internal combustion engines that use biofuels alone or in conjunction with petroleum-derived fuels.

Thus, the environment is again addressed in the provision of a new tax to be created by the Union, through complementary law, on the production, extraction, marketing or import of goods and services that are harmful to health or the environment, article 153, VIII.

Furthermore, products and services whose production or life cycle cause impacts significant environmental impacts will be subject to specific and additional taxation. Another new feature is the authorization for States and the Federal District to establish different rates for IPVA – Tax on Motor Vehicle Ownership, taking into account the impact environmental of each model or type of fuel used, article 155, §6, II.

Furthermore, with regard to the distribution criteria among the municipalities of the collection of the Goods and Services Tax, a portion equivalent to 5% will be based on

environmental conservation indicators, as established by state legislation, article 158, §2, thus, municipalities with better environmental practices will receive a larger share of resources.

Artaxo14 highlights that Brazil is a signatory country to the Paris Agreement and the Goals Sustainable Development Goals (SDGs) of the UN 2030 Agenda, and its scientific community has played a significant role in scientific advancement, influencing policies public policies and socioeconomic development strategies, in addition to guiding decision-makers decision regarding the country's sustainable development, however, Brazil faces challenges significant changes imposed by climate and environmental changes, which require the establishment of metrics and references to contribute to the formulation of regional and national strategies detection/attribution, mitigation and adaptation to its effects, and although compliance with the SDGs and the goals of the Paris Agreement is an important step towards sustainability, it is recognized that there is still a long way to go to build a society truly sustainable.

In short, although it was not its initial objective, tax reform through

Constitutional Amendment No. 132 of 2023 represents a positive and progressive innovation in include relevant environmental sustainability provisions in constitutional rules tax, aligning consistently with the Development Goals

Sustainable Development Goals (SDGs) of the United Nations, to which Brazil is a signatory.

### 4 CLIMATE CONCERNS IN THE BRAZILIAN SCENARIO

A priori, the environment is protected by the Brazilian Constitution of 1988, specifically, in Article 225, which establishes the right of everyone to an ecologically sound environment balanced, essential for the quality of life and common use of the people, and this right implies obligations for both the Public Authorities and the community in general, aiming at their defense and preservation for current and future generations, and to ensure the effectiveness of this right, The Public Authorities are responsible for several actions, including the preservation and restoration of processes essential ecological aspects, the appropriate management of species and ecosystems, and the monitoring of

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<sup>&</sup>lt;sup>14</sup> ARTAXO, P. The three emergencies facing our society: health, biodiversity and climate change. **Advanced Studies Journal**, v. 100, https://www.**9d**ielo.bf/j/ea/a/ p. 55, <sup>2020</sup>. Available at: TRsRMLDdzxRsz85QNYFQBHs/. Accessed on: July 10, 2024

entities that manipulate genetic material, and it is also responsible for defining territorial areas specially protected in all units of the Federation, whose alteration or suppression only may occur by law, with a ban on any use that compromises its integrity.

Furthermore, a prior environmental impact study is required for works or activities that can cause significant degradation, ensuring public transparency in these processes. The control over techniques, methods and substances that pose a risk to life and the environment environment, as well as the promotion of environmental education at all levels of education, are essential measures to strengthen public awareness and environmental preservation, as well as, the protection of fauna and flora is highlighted, with the prohibition, by law, of practices that threaten their ecological functions, lead to the extinction of species or subject animals to cruelty15.

Highlighting that Constitutional Amendment No. 132 of 2023 introduced in article 225, paragraph VIII, that a more positive tax regime should be maintained for biofuels and hydrogen low carbon emissions, aiming to promote its competitiveness compared to fuels fossils and contribute to environmental sustainability, as well as, the constitution states that: "§ 2º anyone who exploits mineral resources is obliged to restore the environment degraded, in accordance with the technical solution required by the competent public body, in the form of law".

Furthermore, according to paragraph 4 of the aforementioned 225 of the constitution, it is condemned activities that degrade the environment, imposing criminal and administrative sanctions on offenders, in addition to the obligation to repair the damage caused. Areas such as the Amazon Rainforest, the Atlantic Forest, the Pantanal Mato-Grossense, the Serra do Mar and the Coastal Zone are recognized as national heritage, with specific legislation to guarantee their preservation and sustainable use of its natural resources.

Having made these legislative explanations, it is also worth highlighting that climate concerns have gained increasing relevance in the Brazilian scenario, reflecting a global context of intensification of the impacts of climate change, even more so in a country like Brazil, known for its vast biodiversity and holder of abundant natural resources, therefore, there is challenges in implementing environmental protection related to mitigating adverse effects global warming, especially in the economic aspect, which made the tax reform worthwhile.

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BRAZIL. Constitution of the Federative Republic of Brazil of 1988. Available at: https://www.planalto.gov.br/ccivil\_03/constituicao/constituicao.htm. Accessed on: July 9, 2024.

Currently, a number of significant challenges are faced to achieve the sustainable development, the depletion of natural resources and the negative impacts of environmental degradation, such as desertification, droughts, soil degradation, freshwater scarcity and biodiversity loss, are becoming increasingly serious and worsen the list of challenges that humanity faces, and climate change is one of the greatest challenges of our time and its adverse effects compromise the ability of all countries to achieve the sustainable development, and rising global temperatures, rising sea levels, ocean acidification and other impacts of climate change are severely affecting coastal areas and low-lying countries, including many least developed countries and small island developing states, thus the survival of many societies, as well as the planet's biological systems, is at risk16.

Among the main climate concerns in Brazil, deforestation stands out.

Amazon, which poses a direct threat to the world's largest tropical forest and the balance global climate, in addition, deforestation, the intensification of extreme weather events, such as prolonged droughts, floods and heat waves, have impacts on agriculture, security water and urban infrastructure of the country, so these events not only threaten the environmental sustainability, but also put food safety and quality at risk of life of vulnerable populations.

Corroborating this, Marques17 points out that deforestation, forest degradation and fires are interconnected and complementary processes that result in the destruction of forest and its replacement by monocultures and pastures, and the increase in intensity, frequency and geographic reach of fires in Brazil is a result of agribusiness activities, such as exemplified by the so-called "Fire Day", an initiative coordinated by farmers in Novo Progresso (PA), which led to a sudden 300% increase in hotspots on 10 August 2019, according to Inpe.

This is not an isolated occurrence, the fires that occurred in the Pantanal in 2020 and 2021 were also coordinated by farmers, and as highlighted by the Socioenvironmental Institute, the "Day of Fire" has never really ended since then, so besides this direct cause and

<sup>&</sup>lt;sup>16</sup> GOV. **Transforming our world: the 2030 agenda for sustainable development.** 2016. Available at: https://www.mds.gov.br/webarquivos/publicacao/Brasil\_Amigo\_Pesso\_Idosa/Agenda2030.pdf. Accessed on: July 12, 2024.

<sup>&</sup>lt;sup>17</sup> MARQUES, L. Brazil, 200 years of devastation What will remain of the country after 2022? **Revista Estudos Avançados**, v. 35, n. 105, p. 178, 2022. Available at: https://www.scielo.br/j/ea/a/8cG839DzvSLZz6V3VBXd5HN/. Accessed on: July 10, 2024.

main, two systemic factors make the forest more vulnerable to fire and act as feedback mechanisms for forest destruction and degradation: increasingly severe droughts more intense in 2005, 2010 and 2015/16 in the Amazon, generating global warming, and According to the MapBiomas Fogo Project, between 1985 and 2020, fire impacted at least one once an area of 1,672,142 km2, equivalent to almost 1/5 (19.6%) of the Brazilian territory, and each year, over those 36 years, he destroyed on average an area larger than England: 150,957 km2, and the Cerrado and the Amazon represent 85% of the area burned during this period.

The debate on climate concerns in Brazil also involves the need urgent need for greater oversight by public authorities and effective public policies that promote sustainable development, and also raise awareness public and environmental education are important means of adopting sustainable practices and promoting responsible behavior in relation to the environment.

Schmitt and Scardua18 emphasize that ensuring the reduction of illegal deforestation continues being a challenge in public environmental management, as long as the responsible bodies are not properly structured and committed to their duties, the environment will continue suffering the negative consequences, thus, it is evident that the use of coercive measures, by through environmental monitoring, will only have a significant impact if environmental agencies change their way of acting, regardless of the administrative sphere (federal, state, municipal), and on the part of the federal government, it is necessary to adjust the infrastructure existing to the new reality, which implies reorienting work plans, training servers for new tasks and plan new action strategies.

Therefore, climate concerns in the Brazilian scenario are complex and intertwined. with various government and private sectors, therefore, collective commitment is required for the environmental protection involving the well-being of present and future generations, and in this scenario the tax reform through Constitutional Amendment No. 32 proves to be modern in terms of concern for sustainability.



<sup>&</sup>lt;sup>18</sup> SCHMITT, J.; SCARDUA, F.P. The decentralization of environmental powers and the monitoring of deforestation in the Amazon. **Journal of Public Administration**, v. 49, n. 5, p. 1129. 2015. Available at: https://www.scielo.br/j/rap/a/LjyN7XcZM9JNPQVv6Br7M9P/abstract/?lang=pt&format=html. Accessed on: July 12, 2024.

#### CONCLUSION

Analysis of Constitutional Amendment No. 132 in the context of Brazilian tax reform reveals a necessary effort by the legislator to integrate sustainability principles into country's fiscal policies. Environmental protection, a topic of growing global relevance, and in Brazil, it gains a new horizon of action through tax mechanisms that aim to both encourage environmentally responsible business practices and discourage polluting activities.

This perspective not only reaffirms the country's commitment to the environmental agenda, but also demonstrates an understanding of the interdependence between development economic and environmental sustainability, especially in the constitutional scenario, given the relevance of the topic.

Constitutional Amendment No. 132 proposes changes that, if well implemented, can transform the Brazilian economic and environmental landscape. The introduction of tax incentives for companies that adopt sustainable practices is an elementary strategy to promote corporate responsibility and green innovation.

The research identified that Constitutional Amendment No. 132 can generate benefits positive environmental factors, such as greater preservation of natural resources and the promotion of more sustainable economy. However, it also revealed challenges, such as the need for harmonization between different levels of government and the potential resistance of economic sectors that may be adversely affected by the new measures, thus overcoming these obstacles will deserve more oversight, both from the government and from society.

In short, Constitutional Amendment No. 132 represents an important step in integration of environmental sustainability into Brazil's fiscal policies, thus, this study contributes to the academic and legislative debate on the intersection between taxation and sustainability, and it is hoped that the conclusions presented here will serve as a basis for future research and formulation of environmental and economic policies in this regard.



#### REFERENCES

ARTAXO, P. The three emergencies facing our society: health, biodiversity and climate change. **Revista Estudos Avançados**, v. 34, n. 100, p. 53-66, 2020. Available at: https://www.scielo.br/j/ea/a/TRsRMLDdzxRsz85QNYFQBHs/.
Accessed on: July 10, 2024.

BLANK, DMP The context of climate change and its victims. **Mercator Journal,** 157-172, https://www.scielo.br/j/
v. 14, n. 2, p. mercator/ 2015. Available in: a/SgzwvyFQvzynyM8ZhdtRzjr/#:~:text=Os%20relat%C3%
Rivers bring alarming forecasts, tropical storms and and hurricanes. Accessed on: July 10, 2024.

BRAZIL. **Constitution of the Federative Republic of Brazil of 1988.** Available at: https://www.planalto.gov.br/ccivil\_03/constituicao/constituicao.htm. Accessed on: July 9, 2024.

BRAZIL. **Constitutional Amendment No. 132, of December 20, 2023.** Amends the Tax System. Available https://www.planalto.gov.br/ccivil\_03/constit**Velo/en**endas/emc/emc132.htm. Accessed on: in: July 12, 2024.

BRUNO, SF; MATTOS, UAO Benefits of biodiversity for traditional communities: does the new legislation support them? **Revista Ciência Florestal,** v. 31, n. 2, p. 998-1019, 2021. Available at: https://www.scielo.br/j/cflo/a/T3wNVDmM3Q9PfThDm9RKy3q/.
Accessed on: July 12, 2024.

FLEURY, LC; MIGUEL, JCH; TADDEI, R. Climate change, science and society. 21, n. 51, p. 18-42, 2019. Available SHRnFKJmJdF7pmQkCBXt6hb/. at: **Revista Sociologias**, v. 1, n. 5, p. https://www.scielo.br/j/soc/a/ Accessed on: July 11, 2024.

GOV. Transforming our world: the 2030 agenda for sustainable development. 2016.

Available at in:

https://www.mds.gov.br/webarquivos/publicacao/Brasil\_Amigo\_Pesso\_Idosa/Agenda2030.pd f. Accessed on: July 12, 2024.

JACOBI, PR; EMPINOTTI, VL; SCHMIDT, L. Water scarcity and human rights.

**Environment & Society Journal,** v. 10, n. 1, p. 1-5, 2016. Available at: https://www.scielo.br/j/asoc/a/cCsMrCww5SYJDPmhbCBDw4m/?lang=pt#:~:text=Atualmen te%20more%20than%20one%20billion,increasingly%20affected%20by%20stress %20h%C3%ADdrico. Accessed on: July 10, 2024.

MACHADO, CH; BALTHAZAR, UC Tax Reform as an Instrument for Implementing Distributive Justice: a historical approach. **Sequence Magazine**, v. 77, p. 221-

252, 2017. Available at: https://www.scielo.br/j/seq/a/664hwkfyJhNps84R4XgvgBh/.

Accessed on: July 9, 2024.

MACHADO, ILO; GARRAFA, V. Protection of the environment and future generations: bioethical developments and reflections. **Health in Debate Journal**, v. 44, n. 124, p. 263-274,

2020. Available at: https://www.scielo.br/j/sdeb/a/qwqC4w64RTNh7PJDQHgqdNF/. Accessed on: July 12, 2024.

MARQUES, L. Brazil, 200 years of devastation What will remain of the country after 2022? **Revista Estudos Avançados,** v. 35, n. 105, p. 169-184, 2022. Available at: https://www.scielo.br/j/ea/a/8cG839DzvSLZz6V3VBXd5HN/. Accessed on: July 10, 2024.

OLIVEIRA, AS The Leadership of Developed Countries in the Paris Agreement: reflections on the Naming and Shaming strategy within the Global Balance. **Revista Sequência**, v. 81, p. 155-180, Available https://www.scielo.br/j/seq/a/VszwLSFvHnTgbrcCHJfvsdb/?lang=pt.?

SCHMITT, J.; SCARDUA, F.P. The decentralization of environmental powers and the monitoring of deforestation in the Amazon. **Journal of Public Administration,** v. 49, n. 5, 1121-1142. 2015.

Available at: in:

https://www.scielo.br/j/rap/a/LjyN7XcZM9JNPQVv6Br7M9P/abstract/?lang=pt&format=htm I. Accessed on: July 12, 2024.

