

Sustainability pathways and practices



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ABSTRACT

Sustainability is on the global agenda of major nations concerned with the survival of humanity. It becomes relevant to understand and solve the problems faced by human and non-human beings in order to improve the quality of life and well-being of all. Sustainability issues are present in the lives of citizens who sometimes do not realize their importance. However, it gains space in the world as a way to mitigate the environmental problems that the human being himself causes to the planetary environment. The literature shows that the concepts of sustainability are under construction. This article sought to reflect on the need for sustainability practices for the survival of planet Earth. It is important to recognize that sustainability practices are connected in several dimensions to find the balance and its full functioning as the ecological, social, economic, technological and other dimensions. These dimensions deal with how sustainability can assist in the various relationships with the human being.

Keywords: Sustainability, Development, Environmental problems.



1 INTRODUCTION

The practice of sustainability is a concept that has been discussed in recent decades in our society, the rulers and public authorities and the United Nations - UN, has worked to implement in our society the practice of sustainability and preservation of the planet. The aforementioned practice consists of a set of habits and actions that respect the environment and planet earth, is a way to preserve and care for the present and the future in an ecological and balanced way.

The concept of sustainability emerged as a response to growing concerns about human impact on the environment and society. In this way, it seeks ways to preserve and care for current and future generations, in order to guarantee the right provided for in the Federal Constitution that cites the importance of quality of life for all.

The term sustainability can infer the meanings of maintaining or preserving. In this way, safeguarding all beings to have a more sustainable life, being essential for the planet and for the ecology of our world. Exploiting natural resources with awareness is also a form of sustainability. According to João (2002), the reduction in the consumption of natural resources is a great challenge for the survival of human beings, in addition to contributing to the well-being of the planet. Research shows that if we do not preserve or adopt measures and actions of sustainability in everyday life, the planet will suffer serious consequences that could jeopardize the future of humanity, since the degradation of the environment, the atmosphere, natural water resources, fertile soil signals the danger alert on earth.

With this it is necessary to understand the concept of sustainability and preservation of the environment and the planet in general. There are several ways to practice sustainability, whether in everyday life, in commerce, in agribusiness, in companies. When you adopt a sustainable way of life, you preserve not only the environment, but all natural resources.

This work aimed to reflect on the importance of sustainability for the planet and its practices for improving the quality of life and well-being of human and non-human beings. The exploratory method was used with a qualitative and bibliographic research approach.

2 THE IMPORTANCE OF SUSTAINABILITY FOR THE PLANET

For Buainain (2006, p.47), the idea of sustainability has a "strong environmental content and a clear appeal to the preservation and recovery of ecosystems and natural resources". In this sense, it is worth emphasizing that the sustainable culture of preservation of the environment and all natural resources are essential for a healthy future and for life on the planet to be full, free of pollution and degradation that harm all human and non-human beings.

Meadows, Meadows and Randers(1992), define sustainability as a development technique that results in the improvement and quality of life while minimizing negative environmental impacts. That



is, maintaining an environment conducive to preservation and sustainability helps in several aspects. Thus, working sustainability in global aspect is of paramount importance to publicize and to raise awareness of the benefits of a sustainable life, and the risk that humanity suffers in devastating the planet.

It is necessary that the entire population mobilizes for changes in habits in daily behaviors, because sustainability is the pillar of human life, it is a way of taking care of the planet and future lives, but this relationship is far from being consolidated.

Sustainable development aims to preserve the social and environmental environment from the impacts of ecosystem degradation and to generate economic growth by eradicating poverty and social inequality.

Everyday human actions directly influence the ideas and principles for economic and environmental development, namely: reuse of materials, conservation of natural resources and fewer pollutants.

Economic, environmental and social sustainability are the three fundamental pillars for the progress of sustainable development, aiming at collective work to achieve a better quality of life. However, an opposite reality is experienced worldwide and Brazil is a reflection of this situation.

Climate change has also been affecting our lives drastically day by day, which has become a major wake-up call. According to the UN, action needs to be taken or serious consequences will occur.

With sustainable development, there is an opportunity to change this reality and reduce negative impacts, through the innovation of the industry as a whole, in the field of health, education, renewable energies, actions against climate change, drinking water and basic sanitation. For example: separating waste for recycling, saving electricity, reusing packaging, reducing the consumption of plastic products, using biodegradable products, saving water consumption and it is also up to industries to work in a less polluting and more sustainable way.

In Brazil, there are manual works for sustainable development that promote jobs, culturally known as handicrafts. It is a practice of preserving the environment, what could be discarded becomes something reusable and the same occurs with different materials. Thus, it is a conscious way to preserve, make art and promote sustainability.

As mentioned, sustainable development aims to preserve the social and environmental environment from the impacts of ecosystem degradation and generate economic growth by eradicating poverty and social inequality. For this, sustainability practices must permeate people's lives in an attempt to minimize the devastating actions of human beings.

In this panorama, Iaquinto (2018) describes several dimensions of sustainability to understand them in human relations, such as, for example, economic and social cited below.



2.1 ECOLOGICAL OR ENVIRONMENTAL DIMENSION

This dimension seeks the preservation of the environment collectively and not only individually (Anjos; Ubaldo, 2015), to understand the importance of creating conditions to make life on the planet viable (Póvoas, 2015). Sachs (1993) comments that the ecological dimension will be put into practice as long as there is a reduction in the amount of waste and pollution; and compliance with rules for adequate environmental protection, among other situations.

2.2 ECONOMIC DIMENSION

A balance is sought between the production of goods and services and the distribution of wealth (Póvoas, 2015). For Freitas (2012), sustainability has the responsibility to create a new economy with revised categories and behaviors to allow the emergence of long-term opportunities and a competent system of incentives, aiming at the good relationship between the economy and sustainability.

2.3 SOCIAL DIMENSION

This dimension includes the protection of cultural diversity and the guarantee of full exercise and combating social exclusion (Póvoas, 2015). According to Sachs (1993, p. 25), the social dimension aims at "a civilization of "being", in which there is greater equity in the distribution of "having" and income, in order to substantially improve the rights and conditions of broad masses of the population and to reduce the gap between living standards of the affluent and the non-affluent". The social dimension aims to ensure greater equity in income distribution, employment opportunities for all and equal access to social resources and services (Mendes, 2009).

2.4 TECHNOLOGY DIMENSION

The technological dimension of sustainability addresses the various paths of technology to solve the numerous environmental problems often caused by human action, through science (Iaquinto, 2018). Ferrer and Cruz (2017, p. 41) comment that technology can act in sustainability "through paths that only science can offer, adopting a new energy model based on clean technologies, producing without waste and reversing some of the harmful effects already caused [...]".

2.5 SPATIAL OR TERRITORIAL DIMENSION

It is based on more balanced rural-urban spaces with a better territorial distribution, including economic activities (Sachs, 1993). For Mendes (2009, p. 52), the dimension also seeks "improvements in the urban environment; overcoming interregional disparities and elaborating environmentally safe strategies for ecologically fragile areas to ensure the conservation of biodiversity and eco-development". Iaquinto (2018, p. 169) comments that through the territorial dimension, sustainability



"also manifests itself in the distribution of areas occupied by human beings, as well as the organization of these spaces, with the scope of creating rules for better conservation and recovery of the environment in each space [...]"

2.6 CULTURAL DIMENSION

Its objectives are "to promote, preserve and disseminate the history, traditions and regional values, always following their transformations and, of course, guaranteeing the entire population access to information and knowledge" (Mendes, 2009, p. 55) aiming at investments in the construction, renovation or restoration of cultural equipment. For Silva, Souza and Leal (2012, p. 36), the cultural dimension of sustainability "contributes to instructing the quality of life by exercising cultural citizenship, and the opportunity to exercise this role must be made available to the whole society in an equal way, so that everyone has access to this guarantee".

2.7 ETHICAL DIMENSION

According to Iaquinto (2018, p. 172), "the concept of ethics is extremely broad and complex to categorize, due to the abstraction regarding the multiplicity of meanings created according to the understanding of each individual". In this way, the ethical dimension suggests that all beings have "an intersubjective and natural connection, from which follows the empathic solidarity as a universalizable duty to leave the positive legacy on the face of the earth, based on the correct Darwinian understanding of natural selection" (Freitas, 2012, p. 67). It is perceived that sustainability does not have its perspective limited only to the environment, but also covers the individuals who interact with this complex, analyzing them from the perspective of the characteristics inherent to each person. In view of this, it follows that the human being will only treat the environment with the dignity due to him when he is understood as part of this whole system (Iaquinto, 2018).

2.8 PSYCHOLOGICAL DIMENSION

For Iaquinto (2018), sustainability in the psychological dimension is used to designate the study of the human being in its relations with the other dimensions, such as cultural, social, political and economic. In view of this, "the psychological dimension is indispensable for the understanding and comprehension of sustainability, because, through psychology, one can verify and ascertain the relationship of the human being with the environment" (Mendes, 2009, p.52).



3 SUSTAINABILITY PRACTICES AND THEIR CONTRIBUTIONS

For Natalli et. al (2020, p. 352) "Sustainability is the way human beings should act towards nature in order to preserve its resources for future generations". The central idea is that economic and social development should occur in a way that preserves natural resources and ensures quality of life for present and future generations. With growing awareness of the negative impacts of unbridled development on the environment and society, sustainable practices are emerging as key solutions to ensure a viable future.

Some of the main sustainability practices adopted in different areas range from the conservation of natural resources to corporate social responsibility. Borin, Pimentel and Amâncio (2008, p. 295) conceptualize sustainable practices as follows:

Sustainable social practices refer to the organization's management practices aimed at improving the quality of life of employees and the community. [...] Sustainable environmental practices refer to the organization's management practices aimed at preserving environmental quality and preventing environmental impacts. [...] Sustainable economic practices refer to the organization's managerial practices to achieve good economic performance.

The conservation of natural resources plays a key role in sustainability practices. The responsible and sustainable use of resources such as water, air, soil, flora and fauna is essential to ensure the preservation of the environment in the search for the best way to maintain and conserve natural resources (Munaretto; Aguiar; Vieira, 2017). To this end, practices such as the efficient use of water, the protection of natural habitats, the conservation of biodiversity and the promotion of sustainable agricultural practices are adopted.

Efficient use of water involves reducing consumption, reusing and collecting rainwater, and more efficient irrigation technologies. Protection of natural habitats is carried out through the creation of conservation areas, national parks and nature reserves, ensuring the preservation of important ecosystems. Biodiversity conservation seeks to protect the variety of species and ecosystems, preventing extinction and environmental degradation. Sustainable agricultural practices that involve the use of techniques that reduce the use of pesticides protect the soil, promote crop rotation and encourage organic farming (Borin; Pimentel; Amâncio, 2008).

Another important aspect of sustainability practices is energy efficiency and the reduction of greenhouse gas emissions. Excessive energy consumption and reliance on non-renewable sources contribute significantly to climate change and other environmental problems. To address this challenge, sustainable practices are adopted to reduce energy consumption and promote clean and renewable energy sources. In this context Araújo et al. (2022, p. 3) highlight that,

Currently, the world faces a water crisis, due to the scarcity of rainfall and the lack of rapid action by governments, so the diversification of the energy matrix at the global level is of fundamental importance to meet energy demands, considering that the construction of new hydroelectric plants can cause numerous environmental impacts, since they cause changes in



the ecosystem, rivers and even the extinction of animals, also affecting the lives of the local population. In this scenario, it is necessary to have a better understanding of renewable sources, their main characteristics in relation to environmental, social factors and technological trends regarding the diversification of energy matrices.

Energy efficiency seeks to use energy more efficiently, avoid waste and optimize consumption. This can be achieved through the adoption of energy-efficient technologies such as LED light bulbs, energy-saving appliances and efficient heating and cooling systems. In addition, implementing energy conservation practices such as switching off unused equipment, improving thermal insulation in buildings and using public transport, bicycles or electric cars also contribute to reducing energy consumption.

The transition to renewable energy sources plays a crucial role in reducing greenhouse gas emissions. Practices in the use of solar, wind, hydropower and biomass help to decrease dependence on fossil fuels and mitigate the environmental impacts associated with their extraction and burning. Investments in research and development of renewable technologies, as well as the creation of public policies, incentives for their adherence are essential to promote a more sustainable energy matrix. For Araújo et al. (2022, p. 11) "a significant improvement is expected for the coming decades, aiming to overcome the current limitations of the renewable energy industry, since this is a promising market.

Proper waste management is another key practice in sustainability. Increasing waste production poses a significant challenge to environmental degradation, requiring sustainable approaches to reduce the amount of waste generated and promote recycling and reuse of materials. Proper waste separation is the first step towards efficient management. Through the implementation of separate collection systems, it is possible to separate recyclable waste, organic waste and hazardous waste, directing them to appropriate recycling, composting or safe disposal processes.

As a solution, recycling is an essential practice to reduce the extraction of natural resources and the emission of pollutants. By transforming waste into new products or materials, recycling contributes to reducing the demand for raw materials. Encouraging and facilitating recycling through separate collection programs, installation of collection points and raising public awareness are important strategies.

Natalli et. al (2020) found that sustainability practices on rural properties show that selective waste collection and green manure practices contribute to the maintenance of permanent preservation areas and the legal reserve. These are important actions for the conservation of natural resources and ensuring the adequacy of legislation.

In addition to recycling, the reuse of materials plays a key role in sustainable waste management. Promoting the reuse of products and packaging, whether through repairing, sharing or refurbishing, reduces the need for manufacturing new items and unnecessary disposal. Composting organic waste is another important practice for sustainable waste management. By turning food and



garden waste into organic fertilizer, composting avoids greenhouse gas emissions in landfills and provides a valuable resource for agriculture.

Corporate Social Responsibility (CSR) is an essential component of sustainability practices. Companies play an important role in promoting sustainable development through their responsible business policies and practices. It involves all stakeholders, including employees, suppliers, customers, local communities and the environment. Companies are encouraged to adopt policies that promote social equity, respect human rights, provide fair and safe working conditions, and combat corruption while minimizing their environmental impact.

CSR also includes voluntary actions to support local communities, such as social projects, partnerships with non-governmental organizations, and investments in infrastructure and education. By acting in a socially responsible manner, companies contribute to sustainable economic development and to the well-being of the communities in which they operate. According to Andrade (2023 p. 6) "if business decisions are based only on the economic factor aiming at profit, leaving aside the environmental and social, they may jeopardize the balanced environment and/or harm some social fact".

As important as effective sustainability practices, investment in education and awareness raising is crucial to promote sustainable practices in all areas of society. Disseminating information on sustainability and raising awareness about environmental impacts are essential to engage people and encourage behavioral changes. Environmental education plays an important role in shaping conscious individuals who are empowered to make sustainable decisions. It can be incorporated into school curricula, as well as in awareness campaigns and educational events. Through education, people can understand the importance of sustainability, learn about individual actions they can take and become agents of change in their communities.

In the public sector, raising awareness is also key to promoting the adoption of sustainable practices. Campaigns can address issues such as conservation of natural resources, reduction of consumption, recycling, energy efficiency, and adequate transportation for sustainable projects. In addition, the media plays an important role in disseminating information on sustainability and broadening the dialog with the public. It is worth mentioning that research represents advances in studies for good sustainable practices.

A Brazilian project named "Bem Diverso" was selected as an example of good sustainable practices by the United Nations (UN), according to the Sustainable Development Goals (SDGs), i.e.

the call sought to highlight examples of good practices, including those that could be replicated or scaled up by others around the world in implementing the 2030 Agenda and that would help accelerate the planet's recovery from the novel coronavirus pandemic (UN, 2021, p. 1).



This project is a partnership between Embrapa and the United Nations Development Program (UNDP), which has economic and environmental conservation objectives aimed at sustainability. It is a collective work so that traditional populations and small farmers play a fundamental role in the conservation of the Caatinga, Cerrado and Amazon biomes.

As mentioned earlier, sustainability practices play a vital role in building a sustainable future. By embracing natural resource conservation, energy efficiency, proper waste management, Corporate Social Responsibility, education and awareness raising, we contribute to environmental preservation, social equity and long-term economic prosperity. It is essential that governments, businesses, non-governmental organizations and individuals work together to implement these practices and promote sustainability across all sectors of society. Through collaborative efforts and concrete actions, it will be possible to address the environmental and social challenges facing the world. By adopting sustainable practices it will be feasible to build a better future for present and future generations, where harmony between human development and the preservation of the planet is achieved, motivated by collective, conscious, balanced and resilient effort.

4 CONSIDERATIONS

The work sought to reflect on the need for sustainability practices for the survival of planet Earth.

It is perceived the importance of knowing and experiencing sustainability practices in the daily behaviors and attitudes of individuals.

The environmental crisis has affected all the inhabitants of the planet, that is, human and non-human beings. It is noticed that the concept of sustainable development has evolved throughout the twentieth and early twenty-first centuries, by treating it in several aspects, and not only in the economic one as it occurred for decades.

Sustainability, nowadays, is committed to political, social, technological, economic issues, among other dimensions, aiming to minimize the damage occurred in nature, the reduction in the consumption of matter and energy, as well as improving the quality of life of the planetary community.



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