

## FOOD WASTE AND MISERY: OBSTACLES TO SUSTAINABLE DEVELOPMENT

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## **ABSTRACT**

The 2030 Agenda, proposed by the United Nations, brings seventeen sustainable development goals (SDGs). Food waste and misery are problems that the SDGs seek to solve. To this end, two SDGs can be highlighted, namely, responsible production and consumption and the eradication of poverty. In Brazil, some public policies have already been created to try to mitigate the environmental, social and economic impacts caused by these problems. However, it is necessary to analyze the issue further, so that there is no lack of finite natural resources for the next generations and so that everyone has a dignified life, especially in terms of adequate food, away from poverty. For this analysis, the deductive approach method and the indirect documentation research technique were used, through a bibliographic survey on the subject.

**Keywords:** Sustainability, Sustainable Development, Food Waste, Misery, Public Policies.



#### INTRODUCTION

Sustainability is a concept widely used in recent years, especially after the commitment made to the 2030 Agenda and the idea of sustainability proposed by the United Nations (UN). This agenda contains seventeen sustainable development goals that have as their scope the search for a sustainable world, that is, a world in which people use finite natural resources in a balanced and intelligent way, so that the next generations can do the same, avoiding the depletion of these resources that would certainly hinder human survival. hurting human rights.

Together with the term sustainability, we have sustainable development, which aims to reconcile and balance economic, social, and environmental actions to achieve sustainability. Such concepts are linked to each other, but they are not confused, do not overlap, and cannot be used as synonyms. In view of this, one can think of the eradication of food waste and misery as a way to achieve sustainability through actions and strategies that ensure food sovereignty.

It should be noted that the sustainable development goals proposed by the UN in the 2030 Agenda include responsible production and consumption and the eradication of poverty, which, even with different meanings, are interconnected.

In principle, responsible production and consumption can be understood as the process of production and consumption in a sustainable way, that is, in the production stage, companies must seek the ways that least degrade the environment, using strategies to reuse water, energy, among other finite natural resources. On the other hand, responsible consumption is when the consumer acquires only what is necessary to meet his basic needs.

The main way to obtain responsible production and consumption is to avoid food waste, given that food is wasted in both stages. Let's see that when a food is wasted in consumption, there is also waste in production, because all those natural resources used for production have been discarded with waste. Some foods such as fruits, vegetables and greens are foods that are most wasted by consumers, and they are also the ones that companies need to be constantly producing to meet the needs of these same consumers who waste.

The other sustainable development goal proposed by the UN is the eradication of poverty. This goal aims to end misery in the world, promoting a dignified life for all human beings, meeting basic needs such as food, clothing, health and leisure.



There are several problems that intensify hunger and misery in Brazil and in the world, however, after the COVID-19/CORONAVIRUS pandemic, the problems have strengthened. The issue of education is also another point that is directly linked to misery, as many poor families let their children drop out of school due to lack of structure, causing them not to have an adequate education capable of providing good returns in the future, being deprived of employment and decent income. In addition, there is a great lack of education on the part of the government itself. Land concentration and rural exodus are other examples that drive poverty in the country.

But why are both of the sustainable development goals mentioned above interconnected? And how can we put an end to these problems? By adopting public policies capable of ending food waste, the State will be mitigating, or even ending, poverty, especially food, in the country.

Some programs, such as the Food Acquisition Program (PAA) or the National Food Education Program (PNAE), are public policies created with the objective of avoiding the waste of food from family farming, with initiatives that help small farmers to market their products, and many of these products are intended for students' meals in public schools. Soon, the State will be avoiding the loss of food in the production stage, and even waste in consumption, and in the same program, it will be helping to feed students in the public school system throughout the country.

In addition, by offering benefits such as the Bolsa Família Program or the Continuous Cash Benefit, the State will be monetarily helping the poorest families so that they can feed themselves adequately, without waste in the retail stage, ending the misery present in all regions of our country and around the world.

Thus, evaluating these two objectives together brings ways to achieve sustainability through sustainable development. It is not certain that, while much food is wasted annually, thousands of families go hungry on our planet.

## SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

#### SUSTAINABILITY

The concept of sustainability originated at the United Nations Conference on the Human Environment (UNCHE), which took place between June 5 and 16, 1972, in Stockholm, Sweden. Environmental degradation and pollution were the highlights of the Stockholm Conference, which was the first in which the United Nations (UN) dealt with



issues related to the environment (Ecycle. Understand what sustainability is and its importance).

According to Savitz and Weber, sustainability is the respect for the interdependence of living beings among themselves and in relation to the environment, it means operating the company without causing damage to living beings and without destroying the environment, restoring and enriching it (SAVITZ, A.W; WEBER, K, 2007). From this, the term sustainability refers to the use of natural resources available on our planet, without harming future generations. For Ferreira, sustainability is the condition or quality of something that can be sustained, defended, maintained or conserved (Ferreira, 2010).

For Feil and Schreiber, there is no way to dissociate the environmental, social and economic aspects, because sustainability is a term that reveals the concern with the quality of the system, clarifying that separation distances integration (Feil; Schreiber, 2017).

To be sustainable is to be concerned with the conscious use of natural resources, as we are getting closer and closer to suffering from the irrational use of these resources, it is also to be willing to a new way of living. According to Henrique Rattner, sustainability is not just about explaining reality, it requires the test of logical coherence in practical applications, where discourse is transformed into objective reality (RATTNER, Henrique, 1.999, online).

According to Almeida, sustainability affects power structures, in addition to requiring a balance of economic, environmental and social objectives, operating in sustainability implies acting in a tripolar world, in which power tends to be repeated, in an increasingly balanced way, between governments, companies and civil society organizations (ALMEIDA, Fernando, 2002).

Therefore, with the significant increase in the world's population, sustainability needs to always be on the agenda, avoiding the depletion of finite resources. To this end, it is necessary to create sustainable development, capable of avoiding the problems that human beings cause in the environment, or, at least, mitigating the impacts.

## SUSTAINABLE DEVELOPMENT

The term sustainable development refers to the actions put into practice to achieve sustainability. The meaning of development, according to the Dictionary of the Portuguese Language, can be defined as the process that leads to growth, progression, evolution, and growth that, being social, political and economic, can be observed in a country or region (INSTITUTO DE LINGUÍSTICA TEÓRICA E COMPUTACIONAL).



According to the Brundtland Report, sustainable development is "[...] the one that meets the needs of the present without compromising the possibility of future generations meeting their own needs" (INSTITUTO ECO BRASIL).

Thus, when talking about sustainable development, we are talking about planning the use of finite natural resources, so that the environment is preserved and used by future generations. Sustainable development seeks quality instead of quantity, such as reducing the use of raw materials and increasing recycling, always with the purpose of sparing the environment from environmental degradation caused, mainly, by human beings.

According to Eckschmidt and Beskow, sustainable development is a balanced economic, political, social, cultural and environmental model that satisfies the needs of current generations, without compromising the ability of future generations to satisfy their own needs (ECKSCHMIDT, Alex; BESKOW, Eduardo, 2014).

For the UN, sustainable development involves maintaining a balance between economic growth, social inclusion and, above all, environmental protection. When there is sustainable development, everyone has decent work, health care and quality education, with less pollution and losses to the environment (NATIONAL GEOGRAPHIC BRAZIL NEWSROOM).

In addition, we cannot fail to emphasize and address that the principles of sustainable development are divided into three pillars: environmental, economic and social. Environmental sustainability deals with the rational use of environmental resources, with the purpose of conserving them for future generations; the economic aims at the actions carried out in the financial, productive and technological spheres, studying forms of sustainable development through actions that do not harm the country's financial system, and the social has as its main scope to ensure social well-being, with the reduction of equality and ensuring the basic rights of human beings (GUITARRARA, Paloma. SUSTAINABLE DEVELOPMENT).

Collaborating with sustainable development is essential for a good quality of life for future generations to be possible, as the actions carried out in the present directly influence how our planet will be in the future. The deforestation of forests, the irrational use of drinking water, and the irregular disposal of domestic and industrial waste are examples of actions taken that will have a major impact on the environment.

We emphasize that to achieve sustainable development, it is essential to abandon harmful behaviors and adopt a more balanced conduct in relation to the environment.



Recognizing that the natural resources available on our planet are finite is the first step in starting this process.

## PUBLIC POLICIES AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

In principle, public policies are programs created by the government to improve the lives of human beings, protecting and ensuring that everyone enjoys the rights conferred by law, and must be carried out by all spheres of power in the country: judiciary, legislative and executive (COURT OF ACCOUNTS OF THE STATE OF PERNAMBUCO).

One of the main objectives of public policies is to contribute to the reduction of social inequality in the country, and can be used as the main tool for social inclusion. For Porto, Melo Filho and Duarte, public policies are the plans and actions taken by the State to solve social problems and promote social well-being (PORTO, MELHO FILHO and DUARTE, 2011, p. 29).

In this regard, given that public policies are essential for the success of sustainable development, the UN created the Sustainable Development Goals (SDGs), which aim to end poverty, protect the environment and the climate, ensuring that people can enjoy peace and prosperity.

Each SDG has specific targets and indicators that help measure progress against each goal. The ultimate goal is to transform the world into a just and balanced community that achieves sustainable economic development, protects the environment and improves the lives of all (BRAMANTE, Ivani Contini; CARLOTO, Selma; BRAMANTE, Simone, 2023). It is the obligation of States to protect, respect, repair and ensure human rights, including the proper use of natural resources so that everyone has the possibility of a dignified and sustainable life.

The goals were adopted during the United Nations Summit on Sustainable Development in September 2015 and are described in Agenda 2030, in total there are 17 (seventeen) goals and 169 (one hundred and sixty-nine) goals to be achieved by the year 2030. End hunger; ensure a healthy life; guarantee education; reducing equality and taking action to combat climate change and its impacts are some examples of SDGs that must be achieved by 2030 (UN. What are the Sustainable Development Goals?)

This implies the promotion and internalization of the SDGs as tools for the inclusion of policies and actions by public agents in the reality of each State and Municipality, with a view to achieving sustainability and achieving sustainable development.



## FOOD WASTE AS AN OBSTACLE TO ACHIEVING SUSTAINABILITY

FOOD WASTE IN BRAZIL

Food waste is not only a subject related to economic and social issues, but also to the environment, since due to the use of fertilizers, pesticides and greenhouse gas (GHG) emissions, waste also causes environmental contamination and pollution.

Brazil is one of the countries that produces the most food in the world, on the other hand, it is still one of the countries that wastes the most food, whether in the production, retail or consumption stage. However, Brazil is not the only country that carries out irrational food waste. As much as it is among the ten countries that waste the most, according to data made available by the Food and Agriculture Organization of the United Nations (FAO, Year), about 33% (thirty-three percent) of the world's food production is lost per year (SESI, Year).

During food production, a reduction in the quantity or quality of products is termed a loss by FAO, as food ends up being discarded before reaching markets and the like. On the other hand, when disposal occurs after the sale, FAO calls it waste, that is, the waste is largely linked to the consumer (lbidem).

There are numerous causes for food loss and waste, some products spoil even before they leave the supermarket shelves, as is the case with fruits, vegetables and greens. There are also problems with the transportation of food, long distances, improper packaging or even the absence of packaging are factors that directly influence food waste before food arrives at the establishments. Waste is also present in the retail stage, when consumers are unable to purchase the products that are made available for sale.

On the other hand, during consumption, food is usually wasted due to factors such as overshopping, lack of meal planning, and poor food storage.

In the economic sphere, the more discarded a food, the more expensive it becomes. For example, fruits and vegetables are often expensive foods because they are largely neglected, whether in production, transportation or consumption.

In the environmental aspect, excessive disposal harms the environment, aggravating climate change and putting the survival of future generations at risk. First, we must consider that all the processes used in the production of discarded food, such as transportation, energy expenditure, water, land, fertilizers and pesticides, were used uselessly. In the case of food waste of animal origin, the environmental impact is even greater, because in this case greater amounts of inputs are used, such as water.



According to Milza Moreira Lana, who studies aspects in the post-harvest area at Embrapa Vegetables, in Brasília, Federal District, the logic is this: the more food is thrown in the trash, the more food needs to be produced to replace what was thrown away. Therefore, more natural resources need to be used for this. We have to be aware that along with food, water and land that were used for food production are also discarded (Impacts of food waste that goes to waste, 2021).

Perhaps the problems that the loss and waste of food cause to the environment will not be perceived in the short term, as they are problems that gradually degrade the environment. However, economic and social issues can be solved immediately by reducing food waste.

In the economic sphere, by wasting food, the consumer is dissipating his own money and walking in disagreement with sustainability, therefore, it is not only the suppliers who lose with food waste, but the environment, and also the consumers themselves, who do not consume food properly, buying excessively or storing it inappropriately, And when they go to use them, they need to buy again. In the same way, in social issues, food that until then would be discarded by producers and consumers can be destined to the poorest families, cooperating with the eradication of poverty in the world.

# ECO-EFFICIENCY AND THE SUSTAINABLE DEVELOPMENT GOAL: RESPONSIBLE PRODUCTION AND CONSUMPTION

As mentioned above, the UN created the 2030 Agenda, with sustainable development goals to be achieved by the year 2030. When we talk about food waste, we are facing one of the seventeen SDG goals: responsible production and consumption.

In principle, to promote responsible consumption and production in relation to food waste, the UN aims to halve global per capita food waste at the retail and consumer levels, as well as decrease food loss along production and supply chains, including post-harvest losses (UN, 2024).

To achieve responsible and sustainable consumption, it is necessary to adopt measures such as, for example, avoiding impulse food buying, buying only what is necessary for an adequate diet. When we acquire food that will later be thrown in the trash for not using it, we not only waste the food itself, but also all the natural resources, such as water and electricity, which were used for the production of this food, for example.



In the same way that consumption needs to be responsible, production must also have the character of sustainability. The sustainable development goal that refers to sustainable production brings the idea that the products used for production should be used and reused to the maximum, through recycling, in new production chains. And by adopting measures for responsible production, the company will not only be saving on the economic part, with the reduction of the cost of production or even the execution of services, but will also gain points in environmental issues, because, for example, if it uses less water, electricity or raw materials for production, the less impacts the environment will suffer.

In the retail sphere, many foods are discarded because they are not offered for sale properly, or even due to lack of purchasing power of consumers, since poverty makes it difficult for human beings to eat.

When we talk about more sustainable production, we are also facing one of the main measures that contribute to sustainability: Eco-efficiency. This measure was popularized in the 1980s, when companies were pressured to reduce their environmental impact.

Eco-efficiency seeks to bring more profitability, using, on the other hand, fewer raw materials. Its main objective is to satisfy people's needs, producing and supplying services and goods in the market, maintaining a quality of life with fewer negative changes to the environment, that is, with less consumption of finite natural resources and less generation of pollutants (Ecycle. What is Eco-efficiency?).

Eco-efficient companies are those that obtain economic benefits, agility in their processes and quality of their products, with a reduction in costs associated with the waste of water, energy and materials; as they obtain environmental benefits through the progressive reduction of the generation of solid waste, liquid effluents and atmospheric emissions, introducing in their managerial progress the concept of pollution prevention and occupational risks (VILELA, Alcir; DEMAJOROVIC, Jacques, 2006).

According to Dias, eco-efficiency is achieved through the supply of goods and services at competitive prices, which, on the one hand, satisfy human needs and contribute to the quality of life and, on the other hand, progressively reduce the ecological impact and the intensity of resource use throughout the life cycle, until they reach a level that, at least, respect the estimated carrying capacity for planet Earth (DIAS, Reinaldo, 2006).

Therefore, while consumption is defined as the use of services by people, such as clothing, health, food, production is the entire chain carried out to generate such products. Therefore, when discarding food, for example, we waste all the raw material used in



production, and the same happens with clothes, medicines, and other goods and services that are frequently used and that natural resources are used for production. For this reason, it is extremely important that consumers have responsible consumption, and companies adopt sustainable production.

## MISERY IN BRAZIL AND THE ERADICATION OF POVERTY

## THE CONCEPT AND CAUSES OF MISERY

Misery can be understood as the situation in which a person finds himself when he lacks the basic needs for his survival. In 2022, according to the World Bank (WB), people who received up to US\$ 1.90 per day were considered to be in extreme poverty, and those who received up to US\$ 5.50 per day were considered to be in poverty (GOMES, 2023)

This criterion is the same used by the Brazilian Institute of Geography and Statistics (IBGE) to measure poverty in Brazil. In this sense, after studies, it was found by the IBGE that, in 2021, about 9.0% of the Brazilian population lived in extreme poverty, on the other hand, in 2022, the situation fell to 5.9% of the Brazilian population. Regarding people in poverty, the situation fell from 36.7% in 2021 to 31.6% in 2022. These indices were analyzed in all regions of Brazil, especially in the North and Northeast, where they concentrate the largest volume of people in these situations, however, they are also the regions in which the government invests the most in social programs to minimize social problems (GOMES, 2023).

The historical issue of Brazil contributes significantly to the situation of misery, as the fact that the territory was a colony of exploitation contributed to social inequality, reflecting in the present day (CAMPOS, Mateus).

Land concentration in Brazil is one of the main causes of poverty in the Brazilian territory, as land is concentrated in the hands of a few owners, preventing the low- and middle-income population from having access to land. This issue is also historical, and can be associated with the Hereditary Captaincies, created by the Portuguese in the colonization of Brazil to divide the areas, or it can also be associated with the letter of sesmarias, or even with the Land Law in 1850, which increased the value of the land, making the properties inaccessible to the poorest population (GUITARRARA, Paloma. Sustainable Development).

The accelerated process of urbanization related to the rural exodus are also aggravating factors of poverty in the country. Urbanization occurs when there is an increase



in the urban population in relation to the rural population, and this can occur for several reasons, such as the search for employment and industrialization. In the same sense, the rural exodus means a movement of people out of the rural area for the urban area.

The main consequences of urbanization and rural exodus is that with these practices, there is a significant increase in poverty in the country. Many people move from the countryside to the city without any kind of job, and when they arrive in urbanized areas they find themselves with a shortage of jobs or low professional qualifications, causing an increase in people working in the informal market and informal housing and in places of risk, contributing to poverty in Brazil (GUITARRARA, Paloma. Rural Exodus).

Another problem that contributes to poverty and social inequality is the lack of education in the country. According to data from the Brazilian Institute of Geography and Statistics (IBGE), in 2022, about 5.6% of the Brazilian population aged fifteen and over were illiterate. Also, according to the survey, about 18% of young Brazilians between 14 and 29 years of age did not complete high school, either because they dropped out or because they never attended the school environment (Brazilian Institute of Geography and Statistics).

The reasons why many do not complete high school are diverse, such as the need to contribute financially to the family income, unwanted pregnancy, hunger, and even lack of interest in studies are the main causes.

Based on this, without adequate studies, poverty increases more and more, because in the current market, companies give preference to those who have a qualification in the area of interest, for example, a legal services company will give preference to a law student to do an internship and grow professionally than to a person who does not even have completed high school, or at least one training or technical course in the area. Therefore, these people need to look for other sources of income, it is at this time that poverty and even violence arise, as many find a solution.

Perhaps, of all the examples mentioned above, school dropout is the factor that most affects poverty in the country, as it impedes social and economic development, whether in Brazil or anywhere else in the world. However, the lack of adequate education is also a factor that intensifies poverty.

Brazil has 70% of children in public schools, who spend four to five hours a day in schools. However, few of these students have an adequate level of learning in mathematics, reading and writing. On the other hand, the Program for International Student



Assessment (PISA) showed that, in educational terms, fifteen-year-old students attending public schools are about three years behind students from private institutions (MIZNE, Denis).

Therefore, in terms of poverty and education, it is not enough for students to attend schools and have access to education, it is also necessary for these students to have a quality education so that they can achieve higher education, that they graduate with extensive knowledge not only in mathematics and Portuguese, for example, but also with extensive knowledge in financial education.

According to Professor Naércio, social inequality can be explained or portrayed by the lack of access to higher education, issues of race, and gender, for example. It focuses on the fact that the root is in financial education (FILHO, Naércio Aquino Menezes Filho, online).

In addition to the problems mentioned above, there are other actions that contribute or worsen to the country's misery situation, such as violence and the great concentration of income, or even the lack of a government that adopts adequate public policies to solve the problem, however, so that the situation is at least mitigated. It is necessary to adopt public policies to combat poverty.

## SUSTAINABLE DEVELOPMENT GOAL: THE ERADICATION OF POVERTY

The eradication of poverty, in all forms and everywhere, is among the seventeen sustainable development goals (UN) created by the United Nations (UN) to achieve sustainability by the year 2030.

This objective aims to implement national measures and adequate social protection systems to ensure access to basic services, ownership and control over land and other forms of property, such as inheritances, natural, technological and financial resources (UN. ODS. Eradication of Poverty).

When we talk about a country that has difficulties in accessing basic items, that has a delay in education, problems with housing, sanitation and food, we are facing a country with high rates of misery and, therefore, cannot be considered a sustainable country, which delays the UN 2030 Agenda, and these problems must be solved through effective public policies.

The eradication of poverty is correlated with other principles, such as economic growth and sustainability, which forms a tripod for building a more sustainable planet, within



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the 2030 agenda. And for the fulfillment of the Global Goals and the eradication of poverty, the participation of governments, the private sector and civil society are fundamental (MENEZES; BORGES and COSTA).

We have already analyzed the number of people living in a state of poverty and extreme poverty in Brazil, according to data from the Brazilian Institute of Geography and Statistics (IBGE), however, worldwide, more than 700 (seventy) million people, which is equivalent to 10% (ten percent) of the population, currently live in a situation of extreme poverty (Iberdrola. SDG 1: Eradicate poverty).

According to research carried out by the Poverty and Share Prosperity portal, released in November 2022, it is unlikely that the world will be able to achieve the goal of eradicating extreme poverty by the year 2030 and the main reason is the pandemic we face, which has significantly delayed the progress of the 2030 agenda, together with other factors such as the war in Ukraine and the worsening of social inequality (AMORIM, Tereza).

This implies the non-fulfillment of sustainable development, and growing environmental problems. The absence of the State, and human awareness with the purpose of enforcing all human, political, social, economic, cultural and environmental rights goes against life, and the very survival of future generations.

# PUBLIC POLICIES CREATED TO SOLVE THE PROBLEMS CAUSED BY FOOD WASTE AND MISERY

Food waste and misery are issues that treated together can bring countless benefits to sustainability, because, while many go hungry, others irrationally waste large amounts of food per year.

According to what has been shown, food waste not only brings environmental problems, but also social, economic and cultural problems. By carrying out public policies, which are government initiatives created to reduce social inequality in the country, improving the quality of life and allowing everyone to have access to the rights conferred by law, we can use them to eradicate poverty in the country, or at least alleviate the issue of hunger, providing healthy food capable of guaranteeing all living beings the nutrients necessary for survival.

It is true to say that the benefits of government social programs have a broad impact on the reduction of extreme poverty. If these programs did not exist, extreme poverty could



be about 80% (eighty percent) higher, which would aggravate poverty scenarios both in Brazil and abroad (GOMES, 2023).

According to what will be seen below, public policies are essential to alleviate the problems that delay sustainability, the examples that will be presented are aimed at avoiding food waste to end misery, show how the government is the main responsible for promoting a sustainable country, however, everyone must cooperate so that initiatives are not created without effectiveness.

LAW NO. 14,016, OF JUNE 23, 2020: FOOD WASTE AND DONATION OF SURPLUSES.

On June 23, 2020, Law No. 14,016 was created, authorizing establishments dedicated to the production and supply of food, including fresh foods, industrialized products and ready-to-eat meals, to donate unsold surpluses suitable for consumption, provided that they are within the expiration date and under the conditions specified by the manufacturer, do not have their integrity and health safety compromised and have their nutritional properties maintained (BRASIL, 14.016).

Before the creation of this law, the owners of supermarkets, hospitals, restaurants, snack bars and other establishments that supply food were afraid that the donation of food could hold them responsible for any damage caused to consumers. However, with the publication of the aforementioned law, it became clear that there is no consumer relationship between the parties, and the donors will only be liable in the civil, administrative and criminal spheres if they act with intent.

In this sense, according to Gonçalves, civil intent is any artifice used to deceive someone, and criminal intent is when the agent intends to harm or assumes the risk of producing eventual damage (GONÇALVES, Carlos Roberto, 2012).

However, despite the law encouraging the donation of food to avoid food waste, it is still necessary to create more actions to avoid giving support to establishments that intend to adopt a sustainable policy, implementing federal law No. 14.016/2020. The incentive to adopt a sustainability model has the purpose of forming reflective, supportive people, concerned with the present and future generation.

In addition, by allowing establishments to donate wasted food fit for consumption, without worrying about possible liabilities, except for malice, the legislation allows these establishments to help end misery in the country, feeding the most vulnerable families who do not have the conditions for frequent and nutritious food.



# FOOD ACQUISITION PROGRAM (PAA).

The Food Acquisition Program (PAA) was created in 2003 and has two essential purposes: to promote access to food and to encourage family farming. To achieve these objectives, the program consists of the purchase of food produced by family farming, without any type of bidding, and allocates it to people in vulnerable situations (GOV. Food Acquisition Program).

The program is extremely important for the commercialization of small rural producers, as they generally do not have ease in selling their products, either because of taxes or even because of the bureaucracy of the establishments. Also, small rural producers have difficulties with transportation, given the distance from urban centers and even logistics.

In addition, by being included in the program, small rural producers contribute directly to sustainability, as they avoid the loss and waste of food that would not be sold. On the other hand, even if there is still no such initiative in the program, the food that until then would be wasted by family farming during production could be destined to the most vulnerable, avoiding food waste.

Lehfeld and Mendonça emphasize that the PAA is an instrument that embodies the sustainable use of natural resources to feed the vulnerable, because its proposal is centered on the commercialization of production for their food and nutritional security (LEFHELD, Lucas. MENDONÇA, Marina Ribeiro Guimarães).

In the COVID-19/CORONAVIRUS pandemic, the program was replaced by the Alimenta Brasil Program, however, according to the state leader of the Landless Rural Workers Movement (MST) Paulo Mansan, the program became extremely limited, the government did not allocate resources to the program, which is why it was considered extinct, resuming after the end of the pandemic (VASCONCELOS, 2023).

With this program, a connection is created between those who want to sell, and do not have accessibility, and those who want to buy from family farming. It is a government initiative that, carried out correctly, contributes to the sustainability of our country, as it can end food waste and misery in just one initiative.

## NATIONAL SCHOOL FEEDING PROGRAM (PNAE)

The National School Feeding Program (PNAE) is managed by the National Fund for the Development of Education (FNDE), which is a federal agency linked to the Ministry of



Education. This program is aimed at all students in the public school system, and contributes to the growth, development and, above all, formation of healthy eating habits, offering meals and food education (GOV. Get to know PNAE).

It is through the program that the government transfers food or financial aid to public schools, according to the type of education and number of students. Each school receives aid for 200 (two hundred) school days per student. The main point of this program is that it works in conjunction with the Food Acquisition Program (PAA), as the government purchases food through family farming, valuing the local farmer (NUTRIÇÃO FSP, 2022).

For many students, the only meal of the day is the one offered in the school environment, because the misery they face away from this environment does not allow for food, much less rich in nutrients. The program aims not only at daily meals, but also at a healthy diet, with nutritional foods that are essential for all human beings. Therefore, food that could be wasted during production or retail is purchased by the government and offered in public schools.

The program contributes in several ways to achieve the sustainability desired by the United Nations (UN), because by providing food from family farming to schools, it is possible to avoid food waste, providing food every day for those who attend public schools. And as everyone knows, education is one of the main keys to ending misery, achieving sustainability.

## **BOLSA FAMILIA PROGRAM**

The Bolsa Família Program, created in 2004, is regulated by Federal Law No. 14,601 of June 19, 2023. However, not everyone gets the benefit. To receive Bolsa Família monthly, each family member must receive a maximum of R\$ 218.00 (two hundred and eighteen reais) per month. That is, adding the income of everyone in the family and divided by the number of members, the amount cannot be higher than indicated. But this is not the only requirement, the family needs to be enrolled in the Unified Registry, carried out at the social assistance points of the resident municipality. It is through this registry that the government analyzes monthly who are the families that will benefit from the program.

The minimum amount to be paid by the government for each family that falls under the program is R\$ 600.00 (six hundred reais), and may be higher if the family has children up to six years of age, pregnant women and children and adolescents between seven and eighteen years of age (GOV. Bolsa Família).



The program is widely linked to the problems of misery, as it distributes a monthly income to the most vulnerable, however, by benefiting the poorest families, they can purchase healthy food, ending hunger and also avoiding the waste of those foods that would not be sold in supermarkets, restaurants and the like, because the more families with purchasing power, less waste will occur.

# CONTINUOUS CASH BENEFIT (BPC)

The Continuous Cash Benefit is a benefit paid monthly by the National Institute of Social Security (INSS) in the amount of a current national minimum wage, for those who are unable to provide for their own subsistence. In the same way as the Bolsa Família Program, the BPC has some requirements that must be met to guarantee assistance (Government of the State of São Paulo. BPC – Continuous Installment Benefit).

The main requirement to receive the benefit is that the income per person in the family group cannot exceed 1/4 (one quarter) of the current national minimum wage. In addition, the family must be enrolled in the Unified Registry, and the beneficiary must be an elderly person, aged sixty-five years or older, or a person with a disability, of any age. In the latter case, a medical and social evaluation is carried out to ensure receipt (Government of the State of São Paulo. BPC – Continuous Installment Benefit).

The difference between this benefit and the others offered by the National Institute of Social Security is that to get the BPC it is not necessary to make the mandatory monthly contributions, which is why this program reaches the most vulnerable families. If a family does not have the conditions for healthy eating, clothing, health, how can it make the monthly payment of a contribution for a future retirement? It is with this in mind that the benefit was created.

With this benefit, the INSS allows the most vulnerable families, as long as they meet the requirements, to have a monthly income capable of ending hunger and misery, cooperating with the non-waste of food and providing a more sustainable country, as imposed by the United Nations (UN).

According to SILVEIRA, PERES and BUGALHO, the continuous provision benefit aims to reduce social inequalities, to guarantee a minimum income to people who are unable to meet their basic needs and those of their families, such as not being able to meet the purchase of food (SILVEIRA, PERES and BUGALHO, 2019).



In view of this, to ensure the human right to adequate food, and the overcoming of hunger for those who are in a situation of misery, the BPC presents itself as a resource that ensures the minimum for a dignified existence.

## FINAL CONSIDERATIONS

To achieve the seventeen SDGs set out in the UN 2030 Agenda, it is necessary to adopt public and private initiatives that aim at a single goal: sustainability. Sustainability goes beyond the concepts described in this study, as the focus was on food waste and misery in Brazil and in the world. However, by understanding the concept of sustainability through these two problems, it is possible to understand what a sustainable world is and why it is so important for everyone.

As seen, to end food waste and misery in the world, two SDGs were created by the UN: responsible production and consumption and eradication of poverty, which were treated separately in the research, however, demonstrating how they can be related, allowing sustainability to be achieved more quickly and safely.

In principle, the SDG of responsible production and consumption is linked to environmental, social, and economic issues. By wasting food because of irresponsible consumption, for example, we not only waste the food itself, but also all the resources that were used for its production. Eco-efficiency is a measure that contributes to sustainability because it puts pressure on companies to reduce the environmental impacts caused in production, using fewer finite natural resources and generating fewer pollutants. In addition to environmental problems, producing responsibly is to prevent food loss, causing it to be produced again and causing economic impacts.

Everyone is responsible for environmental impacts, both those they produce and those they consume. When producing food, companies spend a large part of the finite natural resources available on the planet, however, by consuming irresponsibly, consumers also harm the environment, and in many cases, this waste occurs twice, as they waste both due to production that occurred without destination, and in disposal.

There is great food waste during the retail stage, as companies buy irresponsibly, without carrying out studies on the amount that is sold per period, given that many people live in a state of misery and do not have the purchasing power to eat regularly and adequately.



From this, the other problem addressed in the research, which is misery in Brazil and in the world, is being supported by the SDG of poverty eradication. According to what has been demonstrated, 10% (ten percent) of the world population, which is equivalent to 700 (seventy) million people, live in a state of poverty and extreme poverty, which has as its main cause social inequality, in addition to the fact that in Brazil it is a structural problem that has occurred since the formation and distribution of hereditary captaincies.

Thus, there is no doubt that public policies are essential to solve the problems of food waste and misery, promoting a more sustainable country, on the other hand, there is also no doubt that there is a need for more government initiatives to solve these problems more quickly, because waste and especially misery is very intense, not only in Brazil, but all over the world. It is necessary that programs be created frequently to help the most vulnerable, always studying the needs and possibilities of each population and region.

After the enactment of Law No. 14,016/2020, the donation of wasted food by establishments such as hospitals, supermarkets and restaurants increased, as it made it possible for them to donate their wasted and food-ready food to the most vulnerable families, without having a responsibility in the donation, except for malice.

Even before the law came into force, other government initiatives such as the PAA, the PNAE and the Bolsa e Família Program, already existed to try to alleviate the problem of food waste and misery. By collaborating with family farming, allowing the ease of marketing products for those who are interested in buying, and even acquiring these products to offer them in public schools, the government is solving both waste and misery in just one initiative.

And the same occurs with programs and benefits that offer a monthly income to the most vulnerable families that meet the expected requirements, as is the case of the Bolsa Família Program and the BPC. With a monthly income, it is possible for the poorest to have a higher purchasing power, positively impacting both food waste and misery.

However, it is also necessary to analyze the root of the problem. The lack of education, the concentration of land in the hands of a few, the rural exodus and the frequent urbanization are problems that, if solved immediately, can help even more in sustainability, as the problem will be cut at the beginning, making the existing public policies to solve the issue more effective.



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