

# Carbon Credit Brasil

## **Carbon Credit Brasil Serviços Financeiros Ltda**

Avenida Manuel Ribas, 707 – Vila das Mercês, Curitiba, Paraná, CEP: 80510-346

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## **Carbono Social Integrativo**

Carbono Social Integrativo is a holistic approach that seeks to integrate climate change mitigation with social inclusion and environmental education. The concept proposes the redistribution of a portion of the financial resources generated by large carbon projects to fund smaller social and educational initiatives. This redistribution not only amplifies the environmental impact by increasing areas of sustainable management but also promotes social equity and access to environmental education for people of all ethnicities, creeds, and social statuses.

### **Components of the Concept**

**Redistribution of Resources:** A defined percentage of the profits obtained from large carbon sequestration or credit projects is reallocated to smaller projects focusing on social development and environmental education.

**Amplification of Environmental Impact:** The reallocated resources are used to expand areas of sustainable management, thereby increasing biodiversity and the carbon sequestration capacity of additional regions.

**Environmental Educational Exchange:** Establish educational programs that involve the local community and other stakeholders in learning about sustainable practices and the outcomes of carbon projects. These programs would be accessible to all, ensuring inclusion and diversity.

**Audit and Transparency:** Implement a regular audit system, conducted by a mix of local and external professionals, to ensure the proper application of resources and the effectiveness of projects. This also serves to educate participants about the importance of governance and fiscal responsibility.

### **Expected Benefits**

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**Social Inclusion:** Promotes equality by offering opportunities for involvement and benefits from carbon projects to historically marginalized or underserved communities.

**Education and Training:** Increases environmental awareness and empowers individuals with knowledge about sustainable practices and resource management.

**Amplification of Environmental Impact:** Enhances the overall effectiveness of conservation efforts by integrating more land into sustainable management.

**Financial Sustainability:** Creates a self-sustaining model where larger projects help fund smaller initiatives, perpetuating a cycle of environmental and social benefits.

## Implementation

To implement the concept of Carbono Social Integrativo, the following steps are necessary:

**Form Partnerships:** Collaborate with governments, NGOs, private companies, and local communities.

**Legislation and Policy:** Develop and/or adapt laws that favor this resource redistribution.

**Monitoring and Evaluation:** Establish clear performance and impact metrics, both environmental and social.

## Socioeconomic Benefits

The carbon credits generated by these projects are traded by Carbon Credit Brasil at prices that directly benefit local communities. This new source of revenue can be directed towards improving individual and collective living conditions, providing more resources for use in the Amazon region. This results in improvements in social services such as access to potable water, education, healthcare services, and infrastructure. With this approach, both individuals and the Amazon community contribute to environmental preservation while experiencing significant improvements in their quality of life.

The initiative by Carbon Credit Brasil exemplifies an interesting model of sustainable development where carbon credits play a fundamental role. By trading these credits, the organization not only contributes to the reduction of global greenhouse gas emissions but also channels financial resources directly to local communities in the Amazon region. This model allows these communities to benefit economically while promoting environmental conservation. The redistribution of revenue from carbon credits to improvements in essential social services such as

potable water, education, healthcare, and infrastructure can have a transformative impact.

Specifically, some of the implemented projects include:

Project "**Raízes do Amanhã Xavante**": Benefits the Xavante community, focusing on the production of native tree seedlings for environmental recovery and conservation. This project directly involves 500 Xavante indigenous people in the region, transmitting traditional knowledge on forest management and sustainability.

Project "**Sementes de Esperança**": Targeted at the Yanomami community in Roraima, it aims to preserve a 500-hectare area through sustainable environmental management practices, protecting the local habitat and strengthening the Yanomamis' autonomy over their territories.

Project "**Floresta Viva**": Focuses on riverine communities in the Amazon, with actions aimed at planting native trees and revitalizing the environmental, social, and economic aspects of riverine regions. The beneficiary communities are still being defined, highlighting the importance of adapting interventions to local needs.

Project "**Verde Fruto**": Supports 300 families of fishermen and family farmers in Centro Alegre Viseu, Pará, with the production of 30,000 fruit tree seedlings annually, promoting the local economy and environmental conservation.

These projects not only contribute to environmental preservation but also promote significant improvements in the quality of life of the involved communities. By investing in local infrastructure and education, a foundation for continuous sustainable development is created, which can perpetuate environmental and social benefits, reinforcing a positive cycle where the environment is preserved, and the community thrives.

### **Discouraging Deforestation**

One of the most notable implications of this initiative is the reduction of pressure on natural areas. When communities realize the economic benefits of environmental conservation, the need for deforestation diminishes. This leads to more effective preservation of natural areas and protection of ecosystems.

### **The Importance of Sustainability**

The commitment of the Hecta Group to environmental sustainability and socioeconomic development highlights an innovative approach that can be replicated worldwide. As climate change continues to affect communities globally, initiatives like this offer hope and practical solutions for a more sustainable future and socioeconomic balance for those in need.

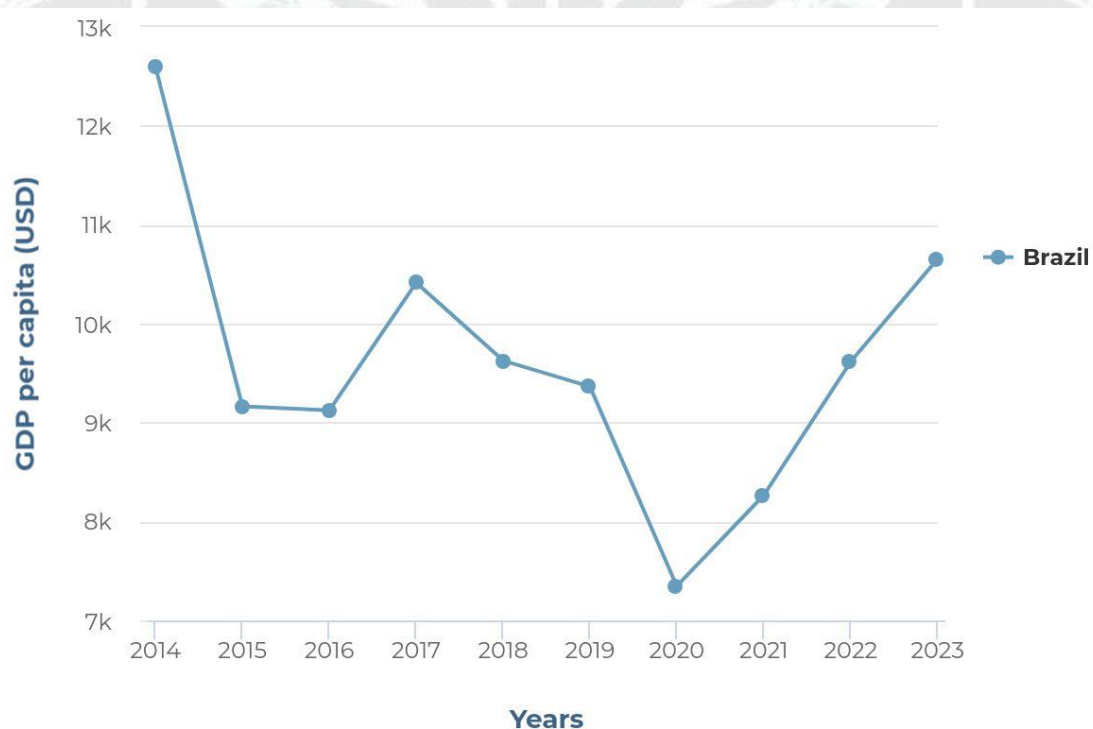


In the case of this project in the Amazon region, in 2022, the average per capita income in the Northern region of Brazil, which includes the Amazon, was approximately R\$ 1,143 per month. This value reflects an average for the region but varies significantly between states. For example, Amazonas had a per capita income of R\$ 965, while Amapá registered R\$ 1,177 and Pará R\$ 1,061 (Agência de Notícias - IBGE). In US dollars, this is approximately \$228.60 per month, based on an exchange rate of R\$ 1 = \$0.20, which is well below the national average household per capita income in Brazil of R\$ 1,625 per month (Agência de Notícias - IBGE). In US dollars, this is approximately \$325.00 per month, using the same exchange rate of R\$ 1 = \$0.20.

As of 2023, Brazil ranked 105th in the world in terms of nominal per capita income, according to data from the International Monetary Fund (IMF) and other sources. Brazil's per capita income was estimated at around \$9,455 for that year. This positioning places Brazil in a middle range globally, below countries like Portugal and above countries like Greece (IMF) (Wikipedia) (Statistics Times).

The implementation of this model can provide a significant economic and social boost to the region. The new Multidimensional Poverty Index (MPI) concludes that it is possible to reduce poverty on a large scale and reveals new "poverty profiles" that can offer progress in development efforts to address it.

#### FocusEconomics - Brazil GDP Per Capita



**Note:** This graph shows Brazil's GDP per capita (USD) from 2014 to 2023.

**Source:** MSCI Inc.

	2018	2019	2020	2021	2022
GDP per capita (USD)	9.627	9.363	7.347	8.266	9.615

### Brazil's GDP Per Capita Data

The study by the Institute for Applied Economic Research (IPEA), titled "A Country Going Backwards: Poverty in Brazil Over the Last Ten Years," analyzes the evolution of poverty in Brazil between 2012 and 2021. Using data from the Continuous PNAD survey, the study observes the percentage of the population living in poverty through five different poverty lines, including national and international references.

Among the main conclusions is the significant increase in poverty between 2012 and 2021, exacerbated by the recession of 2014-2016 and the economic effects of the COVID-19 pandemic. Social transfers, such as Bolsa Família/Auxílio Brasil and Emergency Aid, played an important role in mitigating poverty, especially in 2020. However, the reduction of these aids in 2021 led to an increase in poverty.

The study shows a variation in the poverty rate over the years, highlighting the positive impact of social transfers that significantly reduced poverty in 2020. Unfortunately, in 2021, poverty reached the highest level in the historical series of the Continuous PNAD, largely due to the reduction in the value of social transfers and the slower recovery of the labor market.

The study also analyzes the "growth effect," related to variations in average income, and the "redistribution effect," caused by changes in income inequality, showing that poverty was more sensitive to changes in income distribution than to variations in average income.

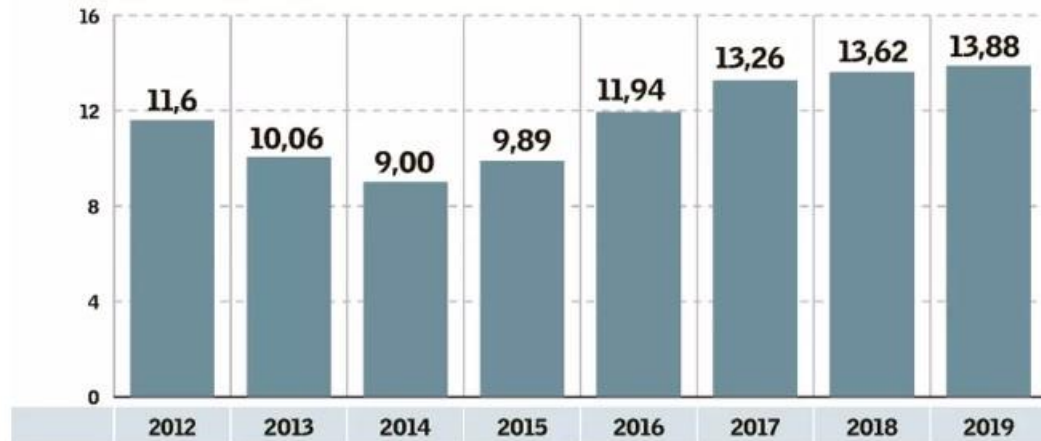
In terms of recommendations, the authors emphasize the need to improve income transfer programs to better target the poorest and avoid setbacks in the fight against poverty.

The analysis conducted by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) of the University of Oxford reveals that, even before the COVID-19 pandemic and the current cost of living crisis, data indicated that 1.2 billion people in 111 developing

countries were facing severe multidimensional poverty. This number is nearly double the estimate based on the traditional definition of poverty, which considers living on less than \$1.90 per day or \$693.50 per year. Among the world's new poor, 82% live in countries classified as middle-income, including Brazil.

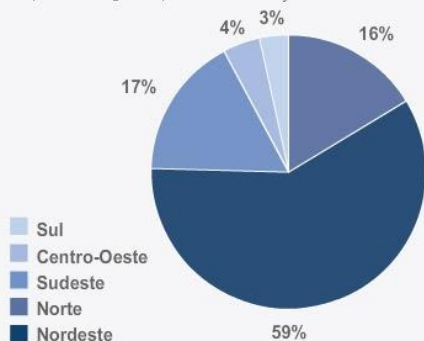
### ■ Evolução da pobreza extrema (US\$ 1,90 per capita por dia)

Em milhões de pessoas



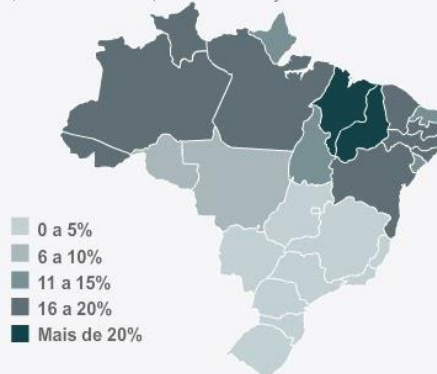
#### POBREZA EXTREMA POR REGIÃO

Clique sobre o gráfico para mais informações

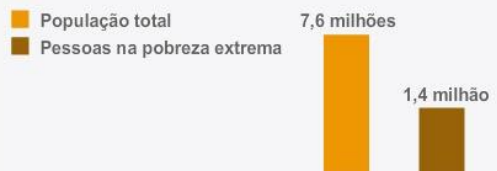


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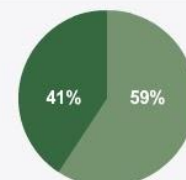
Clique sobre os Estados para mais informações



#### PARÁ



■ Pobreza na área rural  
■ Pobreza na área urbana



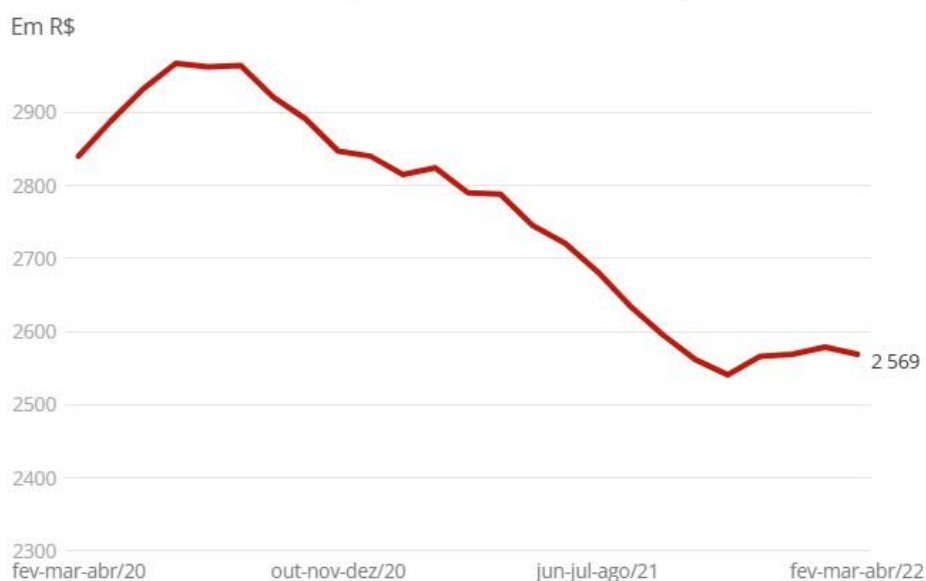
In Brazil, according to the Brazilian Institute of Geography and Statistics (IBGE) in 2022, the regular real income recorded a decrease of 3.6% compared to the previous quarter of 2021 and a reduction of 10.7% compared to the same quarter of 2020, reaching R\$ 2,447—the lowest value ever recorded in IBGE's historical series.

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The annual average was R\$ 2,587, representing a 7% drop compared to 2020 (a reduction of R\$ 195) or approximately \$486.48 annually.

### Rendimento recuou 7,9% frente ao mesmo período de 2021



According to a striking survey by LCA Consultores, based on indicators from the quarterly National Household Sample Survey (PNAD) by IBGE, Brazil ended 2021 with an alarming figure: a total of 33.8 million workers, equivalent to 36% of the total employed, living on a monthly income of up to one minimum wage. This number represents the largest contingent ever recorded in the historical series that began in 2012.

In just one year, there was a staggering increase of 12.2%, meaning that 4.4 million people were pushed into a state of extreme economic vulnerability. As a result, more than one-third of the Brazilian population is living below the severe multidimensional poverty line.

For families in the lowest class, the total average income, combined with asset variation, is a painful reality of R\$ 1,245.30. Considering the IBGE average, which indicates that Brazilian families are composed, on average, of three people, we can conclude that for members of 23.9% of Brazilian families, the average monthly income is a meager R\$ 178.44 per month. To further aggravate this sad reality, families living in rural areas receive just over half, only 52.3%, of the amounts earned by families in urban areas. This means that the average monthly income per family member in rural areas is a mere R\$ 85.11, which, in dollars, represents only \$16.85 per month or \$0.54 per day. This amount is about 3.5 times lower than the \$1.90 estimated by the UN to consider a person living in poverty. These data clearly represent the devastating scenario that millions of Brazilians face in their daily struggle for survival.



## Alignment with Multiple United Nations Sustainable Development Goals (SDGs)

The activities described in the document "Social Carbon: Opportunities for Local Communities in the Carbon Market" align with several United Nations Sustainable Development Goals (SDGs). Here is how each activity contributes to specific goals:

### SDG 1: No Poverty

**Activity:** Commercialization of carbon credits provides a new source of income for local communities.

**Explanation:** By generating additional income through carbon credits, these communities have more resources to invest in their own needs and development. This helps reduce poverty by providing economically viable alternatives to deforestation and other unsustainable practices.

### SDG 8: Decent Work and Economic Growth

**Activity:** Training landowners to access the carbon market.

**Explanation:** Empowering people to participate in the carbon market not only creates economic opportunities but also strengthens the local economy. Increasing local capacity for carbon project management involves training, which can generate qualified and sustainable jobs.

### SDG 13: Climate Action

**Activity:** Conservation projects that reduce carbon emissions.

**Explanation:** Such projects help capture or reduce atmospheric carbon and are essential in the fight against climate change. By maintaining or increasing forest biomass, these projects contribute directly to climate change mitigation.

### SDG 15: Life on Land

**Activity:** Implementation of reforestation and conservation projects.

**Explanation:** These projects help preserve biodiversity and maintain healthy ecosystems, which are essential for environmental sustainability. Conservation of natural habitats is vital for many plant and animal species, helping to maintain local biodiversity.

### SDG 10: Reduced Inequalities



**Activity:** Fair negotiation of carbon credits.

**Explanation:** Ensuring that carbon credits are traded fairly means local communities receive adequate compensation for their role in conservation. This helps reduce economic inequalities, giving these communities the means to improve their living conditions.

#### **SDG 4: Quality Education**

**Activity:** Reinvestment in local education.

**Explanation:** Funds obtained through carbon credits can be used to improve education in local communities. This can include building schools, training teachers, and providing educational materials, contributing to quality education.

#### **SDG 6: Clean Water and Sanitation**

**Activity:** Improvement of water infrastructure.

**Explanation:** Investments in water and sanitation infrastructure improve public health and quality of life. Access to clean water is fundamental for preventing diseases and promoting health.

#### **SDG 3: Good Health and Well-being**

**Activity:** Improving access to health services.

**Explanation:** Resources generated by carbon projects can be used to improve health facilities, providing basic medical services and public health campaigns, which are essential for community well-being.

#### **SDG 7: Affordable and Clean Energy**

**Activity:** Projects that include sustainable energy.

**Explanation:** Some carbon projects may involve creating infrastructure for the use of clean and renewable energy, reducing dependence on polluting energy sources and promoting energy sustainability.

The study "Social Carbon: Opportunities for Local Communities in the Carbon Market" provides a detailed analysis and perspectives on how the Hecta Group initiative has positively impacted local communities by integrating environmental conservation with socioeconomic development. Utilizing the Hecta.ai platform, the initiative enables small landowners to develop and verify conservation projects, generating carbon credits that are traded to finance improvements in local communities.

This approach offers a series of direct socioeconomic benefits, such as improving living conditions through access to basic services like potable water, education, and health. Additionally, it promotes the economic empowerment of the involved communities by providing new sources of income and encouraging sustainability and environmental preservation.

The model also demonstrates how local initiatives can align with the United Nations Sustainable Development Goals (SDGs), addressing crucial targets such as poverty eradication, climate change mitigation, quality education, and ensuring decent work and economic growth.

Specific projects mentioned, such as "Raízes do Amanhã Xavante" and "Sementes de Esperança," illustrate the commitment to environmental conservation while supporting the culture and social development of indigenous and local communities.

By integrating economic interests with environmental conservation, "Social Carbon" not only reduces pressure on deforestation but also offers a replicable model that can be adapted in other regions and countries, showing the global potential of such initiatives.

This holistic approach can inspire public policies and business practices worldwide, demonstrating the transformative impact that community involvement and responsible environmental management can have on global sustainable development.

Based on the results and impacts demonstrated by the "Social Carbon" project, here are some specific recommendations for future policies and actions that can amplify the benefits and replicate the success of this model in other regions:

### **1. Expand Access to Carbon Credit Platforms:**

**Recommendation:** Local and national governments should invest in technology and infrastructure to expand access to platforms like Hecta.ai for more rural and indigenous communities. This can include subsidies for technology, training in carbon project management, and continuous technical support.

### **2. Fiscal Incentives and Subsidies for Conservation Projects:**

**Recommendation:** Implement fiscal incentives for companies and NGOs that invest in carbon credit projects benefiting local communities. This could include tax reductions or credits based on the volume of carbon effectively sequestered or contributions to local economic development.

### **3. Supportive Legislation for the Carbon Market:**

**Recommendation:** Develop and implement specific legislation to regulate the carbon credit market, ensuring transparency, fair negotiation of credits, and equitable distribution of economic benefits to local communities.

#### **4. Education and Training Programs:**

**Recommendation:** Create educational and training programs focused on environmental management, forest conservation, and carbon credit negotiation skills for community leaders and members. This can help communities maximize the benefits of projects and manage their natural resources sustainably.

#### **5. Development of Public-Private Partnerships:**

**Recommendation:** Encourage the development of public-private partnerships to finance and support conservation projects that include carbon credit components. This can help leverage resources from different sectors for a more significant impact.

#### **6. Continuous Monitoring and Evaluation:**

**Recommendation:** Establish robust monitoring and evaluation systems to track the environmental and socioeconomic impact of carbon credit projects. This should include real-time data collection and feedback from the involved communities for continuous adjustments and improvements.

#### **7. Promotion in Local and International Markets:**

**Recommendation:** Promote carbon credit projects in both local and international markets, increasing awareness of their benefits and attracting more investors and credit buyers.

These recommendations aim to strengthen the impact of social carbon projects and ensure that the benefits of environmental conservation and economic development are maximized and sustainable in the long term.

### **Conclusion**

This study highlights the carbon sequestration potential of the Lagoa Grande property, reinforcing the need for integrated conservation and sustainable management strategies. The data also provide a solid basis for valuing ecosystem services, encouraging practices that promote environmental conservation and sustainable development.