BRAZILIAN AGRICULTURAL POLICY FOR CLIMATE ADAPTATION AND LOW CARBON EMISSION

EXECUTIVE SUMMARY

2020-2030
BRAZILIAN AGRICULTURAL POLICY FOR CLIMATE ADAPTATION AND LOW CARBON EMISSION

MAPA Mission
To promote the sustainable development of agriculture and the safety and competitiveness of its products

Brasília
MAPA
2022
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<table>
<thead>
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<td>Wilson Vaz de Araujo</td>
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INSTITUTIONS CONSULTED

Associação Baiana das Empresas de Base Florestal
Agência Reguladora de águas, Energia e Saneamento do Distrito Federal
Associação Gaúcha de Empresas Florestais
Associação de Reflorestadores de Mato Grosso
Associação Brasileira das Entidades Estaduais de Assistência Técnica e Extensão Rural
Associação Brasileira do Biogás
Associação do Sudoeste Paulista de Irrigação e Plantio na Palha
Associação Nacional da Pecuária Intensiva
Associação Paranaense de Empresas de Base Florestal
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Banco Mundial
Banco Interamericano de Desenvolvimento
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Centro Internacional de Energias Renováveis
Comissão Executiva do Plano da Lavoura Cacaueira
Climate Policy Initiative
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Stichting IDH Sustainable Trade Initiative
Instituto de Desenvolvimento Rural do Paraná
Instituto de Manejo e Certificação Florestal e Agrícola
Instituto Capixaba de Pesquisa, Assistência Técnica e Extensão Rural
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Instituto Nacional de Meteorologia
Instituto Nacional de Pesquisas Espaciais
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Serviço Nacional de Aprendizagem Rural
### BRAZILIAN AGRICULTURAL POLICY FOR CLIMATE ADAPTATION AND LOW CARBON EMISSION

<table>
<thead>
<tr>
<th>Institution</th>
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<tr>
<td>Sociedade Brasileira de Sistemas Agroflorestais</td>
<td>SBSA</td>
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<td>Universidade do Estado de Santa Catarina</td>
<td>UDESC</td>
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<tr>
<td>Universidade Estadual de Londrina</td>
<td>UEL</td>
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<td>Universidade Estadual de Ponta Grossa</td>
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<td>Universidade Federal de Mato Grosso do Sul</td>
<td>UFMS</td>
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<tr>
<td>Organização das Nações Unidas para o Desenvolvimento Industrial</td>
<td>UNIDO</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1. Commitments to expand the area of adoption (millions of hectares), waste management (millions of m³) and additional animals (millions of head); the potential for mitigating GHG emissions (millions of Mg CO₂eq), and contributions to adaptation, of SPS<sub>ABC</sub>, by 2030, considering 2020 as the baseline year.

Table 2. Strategic axes, specific objectives, and actions proposed for execution, by 2030, in the ABC+ Operational Plan.

Table 3. Federal legal bases for ABC+ 2020-2030

LIST OF FIGURES

Figure 1. Programs and Strategies of the ABC+ Operational Plan.
This document addresses the global strategy for the second cycle of the plan known as "Plano Setorial de Adaptação e Baixa Emissão de Carbono (Plano ABC)" henceforth to be known as the "Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission (ABC Plan)". This new cycle, called ABC+, establishes the national strategic agenda on the subject, for the period from 2020 to 2030.

Anchored in the National Policy on Climate Change (PNMC), established by Law No. 12187, of December 29th, 2009, ABC+ continues the sectoral policy established in 2010 to tackle climate change by the agricultural sector. It is, therefore, the evolution of the ABC Plan towards the next decade, with the objective of supporting the fulfillment of the global commitments assumed by Brazil, as well as other planning instruments of the Federal Government, aimed at sustainable development.

Its scope is to promote adaptation to climate change, and get control of greenhouse gas (GHG) emissions in Brazilian agriculture, with increased efficiency and resilience of production systems through integrated landscape management.

In this second phase, it focuses on the urgent need to adopt strategies that increase the adaptive capacity of the agricultural sector in the face of climate change, moderating its damage and exploring opportunities. To this end, three strategic pillars make up the basis of ABC+ actions:

1) the Integrated Landscape Approach (ILA);
2) the joint focus on GHG mitigation and adaptation, and;
3) incentive for maintenance and expansion of Sustainable Production Systems, Practices, Products and Processes (SPS_ABC).

Such pillars are detailed in the documents "Strategic Plan" (PE), published in April 2021, and "Operational Plan" (PO), published in October 2021, at ABC+10.

This publication, in the form of an Executive Summary, presents, in a compiled and summarized form, a summary of the main information contained in the two documents above mentioned.

Trusting that agriculture and food supply are at the heart of a fair and equitable development model, we are increasingly convinced that, with its model of sustainable tropical agriculture, Brazil has a leading role to play in achieving the Sustainable Development Goals (SDGs) of the 2030 Agenda, and in accelerating climate action under the Paris Agreement.

In this context, ABC+ is the main tool of the Ministry of Agriculture towards sustainable development of the Brazilian agriculture, reinforcing the country’s potential to produce and preserve at the same time.

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1. INTRODUCTION
After ten years of implementation of the Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission (ABC Plan), the Ministry of Agriculture, Livestock and Food Supply presents the ABC+. In this second phase, it upholds promotion of technologies and production systems, which, in addition to emitting smaller amounts of GHG and being more resilient, allow greater productive efficiency, incorporating new concepts and approaches.

Operational actions of the ABC+ are structured over three new concepts: Integrated Landscape Approach (ILA), focusing on increasing the resilience of agricultural production systems; synergy between GHG mitigation and adaptation, and; adoption and maintenance of Sustainable Production Systems, Practices, Products and Processes (SPS_{ABC}).

ABC+ emerges from the lessons learned from the ABC Plan (2010 to 2020), as well as from public documents, prepared by institutions from different spheres, dealing with themes related to agriculture and climate change. In the process of building it up, 28 national actors were consulted, in addition to the 27 state management groups (GGE). Over 200 authors, collaborators and reviewers, and 50 partner institutions, contributed to this process.

To the technologies promoted in the previous cycle, new SPS_{ABC} were added, maintaining the solid scientific and technological support adopted in the first phase. As main changes, three new SPS_{ABC} were included: No-Till systems for Horticulture (SPDH), Irrigated Systems (SI) and Intensive Cattle Finishing (ICF). In addition, Agroforestry Systems (SAF), together with the Integrated Crop-Livestock-Forestry Systems (ICLF), are in ABC+ called a major technology named “Integrated Systems” (IS). The scope of three other previous SPS_{ABC} s was also expanded, with changes in their names into: Practices for Recovery of Degraded Pastures (PRPD) (formerly “Recovery of Degraded Pastures”). Now it also considers the recovery and renewal of pastures with some degree of loss; Bio-Inputs (BI), which includes Plant Growth Promoter Microorganisms (MPCP) to the previous “Biological Nitrogen Fixation” (FBN), and; Waste Management at Animal Production (MRPA), replacing the “Treatment of Animal Waste”, as it considers other residues besides animal waste, and stimulates the use of the by-products obtained, such as bioenergy and biofertilizers.

In this second phase of operation, the new SPS_{ABC} with proven capacity to adapt to climate change and GHG mitigation, based on scientific criteria, will be carried out continuously throughout its operation time. To this end, biannual reviews of its guiding documents are foreseen.

This document summarizes the main points necessary for understanding the ABC+. 
1.1 CONCEPTUAL BASIS

The conceptual basis established in ABC+ represent an advance in the use of natural resources, and in the paradigm of sustainable development of the Brazilian agricultural sector, signaling current and important issues in the national and international context.

A. Integrated landscape approach (ILA)

ILA brings a strong incentive for farms environmental compliance; valorization of landscape; recovery and conservation of soil quality, water and biodiversity, and; the valorization of local specificities and regional cultures. In short, it associates production and conservation, provided that the use of arable lands and their environmental compliance are stimulated and become complementary.

In the scope of ABC+, it is assumed that the management of agricultural lands must take into account the various elements of the rural landscape and the natural biome in which it is inserted, at its different levels and scales. Thus, the diversified, systemic and dynamic aspect of rural areas is enhanced, with the watershed as a basic planning unit.

B. Interconnection between adaptation and mitigation

The increase in the frequency of extreme climatic events requires strengthening actions aimed at reducing the vulnerability of agricultural production systems, and increasing the resilience of the sector. Structured together, strategies, tools and processes, whose core is mitigation and adaptation, are essential elements in a short-, medium- and long-term perspective, according to their territorial scale.

Under ABC+, adaptation strategies focus primarily on promoting the adoption and maintenance of conservationist practices, considered a "complex of systemic technologies to preserve and restore (or recover) natural resources, with the integrated management of soil, water and biodiversity, compatible with the use of external inputs". Regardless of the production system and the region, these involve:
INTRODUCTION

I. Reduction or suppression of revolving soil;

II. Maintenance of crop residues on soil surface;

III. Species diversification, in rotation, intercropping and/or succession of crops;

IV. Effective contingency systems, which include prevention, control and combat, through integrated risk management systems, weather forecasting and early warning, and territorial zoning, among others, and;

V. Socioeconomic and environmental performance analysis systems, and;

VI. Knowledge and technology transfer.

C. Adoption and maintenance of Sustainable Production Systems, Practices, Products and Processes (SPS\text{\textsubscript{ABC}})

ABC+ encourages the maintenance and adoption of Sustainable Production Systems, Practices, Products and Processes (SPS\text{\textsubscript{ABC}}), within the design of efficient use of areas with suitability for agricultural production, which are:

- Practices for Reclaiming Degraded Pastures (PRDP); No-Tillage System (NTS), segmented into;

- No-Tillage System (NTS), segmented into:
  - No-Tillage Grain Cropping System (NTGCS), and;
  - No-Tillage Horticultural System (NTHS).

- Integrated Systems (IS), segmented into:
  - Integrated Crop-Livestock-Forestry Systems (ICLF), and;
  - Agroforestry Systems (SAF).

- Forestry (FS);

- Bio-inputs, by:
  - Biological Nitrogen Fixation (BNF), and;
To promote adaptation to climate change and get control of greenhouse gas (GHG) emissions in Brazilian agriculture, with increased efficiency and resilience of production systems, considering an integrated landscape management.

1.2 MAJOR GOAL

To promote adaptation to climate change and get control of greenhouse gas (GHG) emissions in Brazilian agriculture, with increased efficiency and resilience of production systems, considering an integrated landscape management.

1.3 SPECIFIC GOALS

I. To keep support to adoption and maintenance of conservationist and sustainable agricultural production systems, with increased productivity and income, resilience and control of GHG emissions;

II. Strengthen actions for transfer and dissemination of technologies, training and technical assistance, for Production Systems, Practices, Products and Sustainable Processes (SPS_ABC);

III. To promote and support applied research for SPS_ABC, SPSABC development or improvement, focusing on increasing resilience, productivity and income, and controlling GHG emissions;

IV. Create and strengthen mechanisms to enable recognition and appreciation of farmers adopting SPS_ABC;

V. Foster, expand and diversify sources and instruments for economic, financial and tax supporting initiatives linked to SPS_ABC;

VI. Improve the ABC+ information management system, to carry out the Measuring, Reporting and Verification (MRV) of SPS_ABC, and the Monitoring and Evaluation of its portfolio of actions and results, and;

VII. To promote agriculture integrated into the landscape, in order to encourage farm environmental compliance and sustainable production in farming areas.
1.4 SCOPE, TARGET AUDIENCE AND DURATION

The scope of ABC+ is national, but then fitting each Brazilian biome, considering their specificities. The Federative Units (States) and municipalities will be encouraged to formally join its execution, through the State Management Groups (GGE) and respective State or District Action Plans ABC+ (PAE ABC+).

ABC+’s target audience consists of all segments, types and sizes of farms, without exception, including family and commercial farming, traditional peoples and communities.

ABC+ will be effective until 2030, governed by MAPA Ordinance No. 323, published in October 21, 2021.

Periodic biennial updates will be carried out to review technologies ($SPS_{ABC}$), actions and goals, as well as to keep up with demands from the society.
2. GOALS
GOALS

From 2020 to 2030, the goals are to expand the area of $SPS_{ABC}$ em 72.68 million hectares, increase treated animal waste by 208.40 millions m$^3$, and slaughter 5 million additional cattle under intensive finishing. Together, these goals contribute to the mitigation of 1.043.41 equivalent to 1.042.41 million Mg CO$_2$ eq, while decreasing vulnerability and increasing resilience of agricultural systems.

To this end, the respective commitments to expand adoption (accounted in million hectares, million m$^3$ or million head of additional cattle), the potential to mitigate GHG emissions (million Mg CO$_2$ eq), and respective contributions to adaptation were defined for each $SPS_{ABC}$, summarized in Table 1.

**TABLE 1.** Commitments to expand the adoption area (million hectares), treated waste (million m$^3$) and additional cattle (million head); the potential to mitigate GHG emissions (million Mg CO$_2$ eq), and contributions to adaptation, of $SPS_{ABC}$, by 2030, considering 2020 as the baseline year.

<table>
<thead>
<tr>
<th>$SPS_{ABC}$</th>
<th>EXPANSION OF ADOPTION (MILLION ha)</th>
<th>MITIGATION POTENTIAL OF GHG EMISSION (MILLION Mg CO$_2$ eq)</th>
<th>CONTRIBUTION FOR ADAPTATION</th>
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<tbody>
<tr>
<td>Practices for Recovery of Degraded Pastures (PRPD)$^1$</td>
<td>30.00</td>
<td>113.70$^2$</td>
<td>Increases the carbon stock and allows greater infiltration and storage of water by increasing the amount, proportional distribution, depth and decomposition of roots along the soil profile. Reduces erosion and increases adaptive capacity to prolonged droughts.</td>
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</tbody>
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$^1$ PRPD: Practices for Recovery of Degraded Pastures
$^2$ Values are in million Mg CO$_2$ eq.
<table>
<thead>
<tr>
<th>SPS_{ABC}</th>
<th>EXPANSION OF ADOPTION (MILLION ha)</th>
<th>MITIGATION POTENTIAL OF GHG EMISSION (MILLION Mg CO_{2} eq)</th>
<th>CONTRIBUTION FOR ADAPTATION</th>
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<tbody>
<tr>
<td>No-Till System for Grain Production</td>
<td>12.50$_3$</td>
<td>12.11$_4$</td>
<td>It promotes conservation of natural resources, maintains permanent soil cover and improves its chemical, physical and biological quality. It promotes greater availability of water and a favorable environment for crop root growth, increasing efficiency of water use. It reduces productivity losses and the vulnerability of grains to pests by reducing water availability for long periods. Contributes to reducing the negative impacts of extreme rainfall events on soil and water conservation.</td>
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<td>No-Till System for Horticulture</td>
<td>0.08$_5$</td>
<td>0.88$_6$</td>
<td>It increases efficiency in the use of inputs, reduces the loss of soil, water and nutrients by erosion, and reduces the thermal amplitude and temperature of the soil. It promotes less dependence on external inputs, and less use of fossil fuels. Makes it possible to improve the use of irrigation water. Reduces losses for erosion.</td>
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BRAZILIAN AGRICULTURAL POLICY FOR CLIMATE ADAPTATION AND LOW CARBON EMISSION

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23
<table>
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<th>SPS&lt;sub&gt;ABC&lt;/sub&gt;</th>
<th>EXPANSION OF ADOPTION (MILLION ha)</th>
<th>MITIGATION POTENTIAL OF GHG EMISSION (MILLION Mg CO&lt;sub&gt;2&lt;/sub&gt; eq)</th>
<th>CONTRIBUTION FOR ADAPTATION</th>
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<tr>
<td>Integrated Crop-Livestock-Forestry (ICLF)</td>
<td>10.00&lt;sup&gt;7&lt;/sup&gt;</td>
<td>37.90&lt;sup&gt;8&lt;/sup&gt;</td>
<td>It reduces the effects of water deficit, increases thermal comfort and animal welfare, improves the productivity of the system components and the use of natural resources, especially soil and water, and minimizes pasture losses in regions subject to sudden thermal inversions.</td>
</tr>
<tr>
<td>Agroforestry Systems (SAF)</td>
<td>0.10</td>
<td>0.38&lt;sup&gt;9&lt;/sup&gt;</td>
<td>It improves physical, chemical and biological properties of soils, reduces erosion, increases water stock and quality, intensifies nutrient cycling, reduces the need for fertilizers and pesticides, increases biomass production, increases biodiversity and climate stability of production systems and improves the microclimate of production systems. It promotes diversification of production and increases the level of employment and farmers income.</td>
</tr>
<tr>
<td>Commercial Forestry (PF)</td>
<td>4.00</td>
<td>510.00&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Increases water capture in greater depth, and streamlines water cycles in their surroundings. It creates habitat for several animal and plant species, with increased biodiversity. It has high potential to generate products and bioproducts for different uses.</td>
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### Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission

<table>
<thead>
<tr>
<th>SPS\textsubscript{ABC}</th>
<th>Expansion of Adoption (Million ha)</th>
<th>Mitigation Potential of GHG Emission (Million Mg CO\textsubscript{2} eq)</th>
<th>Contribution for Adaptation</th>
</tr>
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<tr>
<td>Bio-inputs (BI)</td>
<td>13,00</td>
<td>23,40\textsuperscript{11}</td>
<td>Increases root growth, allowing greater use of water available in the soil. Improves physical and chemical attributes of the soil. Reduces the use of chemical fertilizers based on nitrogen (N), phosphorus (P) and potassium (K), both by the supply of nutrients via microbes and by increasing the efficiency of fertilizer use by plants. It induces plant’s defense system.</td>
</tr>
<tr>
<td>Irrigated Systems (IS)</td>
<td>3,00\textsuperscript{12}</td>
<td>50,00\textsuperscript{13}</td>
<td>Reduces the vulnerability of production systems to dry spells and the risk of crop loss due to extreme events. Increases the stability and supply of food throughout the year.</td>
</tr>
<tr>
<td>Animal Production Waste Management (APWM)</td>
<td>208,40\textsuperscript{14}</td>
<td>277,80\textsuperscript{15}</td>
<td>Decreases external dependence on fertilizers and energy. It is a complementary source of income.</td>
</tr>
<tr>
<td>Intensive Cattle Finishing (ICF)</td>
<td>5,00\textsuperscript{16}</td>
<td>16,2417</td>
<td>It promotes the best use of forage resources. Increases system productivity</td>
</tr>
<tr>
<td><strong>TOTAL SPS\textsubscript{ABC}</strong></td>
<td>72,68 million ha 208,40 million m\textsuperscript{3} 5 million cattle</td>
<td>1.042, 41 million Mg CO\textsubscript{2} eq</td>
<td>Decrease vulnerability and increase resilience of agricultural production systems. Promoting conservation of natural resources, increasing biodiversity and climate stability on production systems.</td>
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GOALS

1 Considering recovery or reclaiming degraded pastures; 2 Considering a default emission/removal factor of 3.79 Mg CO$_2$ eq ha$^{-1}$ ano$^{-1}$ (IPCC, 2006); 3 Considering 4.5 million hectares in NTS and 8.0 million hectares in NT; 4 Considering C sequestration rates of 1.75 Mg C ha$^{-1}$ year$^{-1}$ for SPD and 0.53 Mg C ha$^{-1}$ year$^{-1}$ for PD, and conversion factor for CO$_2$ eq of 3.67; 5 Considering at least 10% of the horticultural production area being converted from conventional to RRS (Reduced Revolving Systems) or NTSH; 6 Calculated based on the reduction of the use of 200 kg ha$^{-1}$ of nitrogen fertilizers, in 8 annual cycles, and considering IPCC default emission/removal factors of 0.01 for N$_2$O (IPCC, 2006), and conversion factor for CO$_2$ eq of 3.67; 7 Considering 1 million hectares with tree species; 8 Considering emission/removal factor of 33.79 Mg CO$_2$ eq ha$^{-1}$ year$^{-1}$ (Carvalho et al., 2010); 9 Considering default emission/removal factor of 3.79 Mg CO$_2$ eq ha$^{-1}$ year$^{-1}$ (IPCC, 2006); 10 Considering default emission/removal factor for eucalyptus, pine and other commercial tree species (IPCC, 2006); 11 Reduction calculated based on the replacement of chemical fertilizers by the adoption of microbial processes; 12 Considering areas of intensification, with aggregation of areas under rainfed agriculture, and expansion, aggregating areas of pastures, especially degraded pastures; 13 Considering emission/removal factor of 3.03 Mg CO$_2$ eq ha$^{-1}$ year$^{-1}$ (Campos et al., 2020); 14 Whereas 27% of the total waste generated by agricultural production systems is treated by biodigestion or composting; 15 Calculated according to the methodology used in the Technical Note: 'Diagnosis of the expansion of using technology for animal waste treatment (TDA) in Brazil between 2010 and 2019' (BRASIL, 2019); 16 Considering cattle finished in feedlot and dry feeding on pasture, although there is no official data on how much they represent of the total number of animals slaughtered in the country; 17 Considering a growth in herd under Intensive Finishing is 500,000 cattle per year, with mitigation potential of approximately 11.4 kg CO$_2$ eq/kg carcass, equivalent to 3.250 kg CO$_2$ eq/animal of 19@.

Source: Prepared by the authors.
3. ABC+ operational plan
To meet the goals proposed in ABC+, nine strategic axes were structured, interconnected and distributed among Programs and Strategies, according to the foreseen actions until 2030 (Figure 1).

\[2\] Set upon involvement of public actors, “Program” deals with the array of actions under direct coordination of the Secretariat of Innovation, Sustainable Development and Irrigation (SDI), MAPA, and “Strategy” of those whose management is shared with other actors.

\[2\] Set upon involvement of public actors, “Program” deals with the array of actions under direct coordination of the Secretariat of Innovation, Sustainable Development and Irrigation (SDI), MAPA, and “Strategy” of those whose management is shared with other actors.
**TABLE 2.** Strategic axes, specific objectives, and actions proposed for implementation, by 2030, in the ABC+ Operational Plan.

<table>
<thead>
<tr>
<th>STRATEGIC AXIS</th>
<th>SPECIFIC OBJECTIVE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program for Access to Credit and Financing</td>
<td>Promote, expand and diversify economic, financial and fiscal sources and instruments linked to $SPS_{ABC}$</td>
<td>Support for getting resources through ABC program and other credit lines, to stimulate adoption and maintenance of $SPS_{ABC}$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promoting alignment of the ABC Program with other lines of credit from the Cropping Season Credit Plan (Plano Safra), observing purposes, financed items and interest rates practiced</td>
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<tr>
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<td>Improvement and expansion of the monitoring mechanisms of Brazilian credit system for financing $SPS_{ABC}$ in order to subsidize monitoring and evaluation actions by ABC+</td>
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<td>Monitoring and participation in the update of the Farming Credit Handbook (MCR)</td>
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<td></td>
<td>Encouraging financial agents to meet $SPS_{ABC}$ financing demands in different regions and priorities, according to mapping and outlook of vulnerabilities and opportunities</td>
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<tr>
<td></td>
<td></td>
<td>Encouraging insurance companies to consider lower risk when contracting agricultural insurances by farmers who adopt $SPS_{ABC}$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encouraging creation of new financing mechanisms via green economy</td>
</tr>
<tr>
<td>STRATEGIC AXIS</td>
<td>SPECIFIC OBJECTIVE</td>
<td>ACTION</td>
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</tbody>
</table>
| Strategic Cooperation Program | Cross-Sectional | Prospecting funding sources for writing cooperation projects, aiming at expansion of ABC+ actions  
Monitoring and following-up implementation and systematization of data from cooperation projects  
Training employees to improve preparation, execution and monitoring of cooperation projects, at regional, state and municipal levels |
| Program for encouraging adoption and maintenance of SPS<sub>ABC</sub> | Keeping motivation for adoption and maintenance of conservationist and sustainable agricultural production systems  
Promoting agriculture in a broad sense integrated into the landscape, in order to encourage farm environmental compliance and sustainable production in areas of agricultural use | Consolidating strategies for maintenance and continuous improvement of SPS<sub>ABC</sub>  
Supporting State Management Groups (SMG) in updating and executing their respective State Action Plans (SAP)  
Encouraging the Integrated Landscape Approach (ILA) in the definition of SPS<sub>ABC</sub> at farm level  
Provision of basic inputs to support adoption and maintenance of SPS<sub>ABC</sub> by family farmers, agrarian reform settlers, traditional communities and peoples as well as smallholders  
Promoting establishment of SPS<sub>ABC</sub> by family farmers, agrarian reform settlers, riverside/traditional communities and smallholders |
<p>| Valuation and Recognition Program | Create and strengthen mechanisms that enable recognition and appreciation of farmers adopting SPS&lt;sub&gt;ABC&lt;/sub&gt; | Enabling mechanisms fostering recognition and appreciation of farmers and farms using SPS&lt;sub&gt;ABC&lt;/sub&gt;, as well as their produces |</p>
<table>
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<th>STRATEGIC AXIS</th>
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</thead>
</table>
| Strategy for Governance, Monitoring and Evaluation | Improve the ABC+ information management system, to carry out the Monitoring, Reporting and Verification (MRV) and Monitoring & Evaluation of its portfolio of actions and results | - Operationalization of the ABC+ Digital Governance System (SIGABC), to monitor the implementation of ABC+ promotion actions at national and state level.  
- Operationalization of the Multi-institutional Platform for Monitoring GHG Reductions in Agriculture (ABC Platform), to effectively monitor GHG emissions resulting from the adoption of SP$^{SABCD}$ABC.  
- Improving interaction with the Rural Credit Operations System and Proagro (SICOR), and with the Securities and Exchange Commission (CVM), to monitor the adoption of SP$^{SABCD}$ABC.  
- Consolidation, systematization and evaluation of ABC+ execution results via the ABC Plan Integrated Information System (SINABC).  
- Monitoring and validation of ABC+ by the National Executive Committee of the ABC Plan (CENABC). |
| Strategy for Technical Assistance and Rural Extension (ATER), Training and Technology Transfer | Strengthen actions for technology transfer and diffusion, training and technical assistance | - Strengthening Technical Assistance and Rural Extension Bodies (ATER), to support expansion and maintenance of SP$^{SABCD}$ABC in Brazil.  
- Support implementation, expansion and systematization of Technological Reference Units (URT), for the dissemination of SP$^{SABCD}$ABC with greater potential for Brazilian regions.  
- Support dissemination of SP$^{SABCD}$ABC among technicians, extension workers, project writers, financial agents/analysts, liberal professionals, companies and rural producers, throughout the national territory. |
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<th>STRATEGIC AXIS</th>
<th>SPECIFIC OBJECTIVE</th>
<th>ACTION</th>
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<tr>
<td>Strategy for communication and awareness raising</td>
<td>Cross-sectional</td>
<td>Communication and dissemination of ABC+ to state management groups, technicians, extensionists, project writers, financial agents/analysts, farmers, farmer associations, researchers, professors, opinion makers, international community and sponsors of cooperation projects</td>
</tr>
<tr>
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<td>Awareness raising among key actors for the internalization of ABC+ in different scopes and audiences (state management groups, technicians, extension agents, project writers, banking agents/analysts, farmers, class associations, researchers, instructors, opinion makers, international community, sponsors of cooperation projects etc.)</td>
</tr>
<tr>
<td>Strategic Intelligence for Climate Risk Management</td>
<td>Cross-sectional</td>
<td>Promoting integration and availability of intelligence and climate risk information in order to enhance resilience of $SPS_{ABC}$</td>
</tr>
<tr>
<td>STRATEGIC AXIS</td>
<td>SPECIFIC OBJECTIVE</td>
<td>ACTION</td>
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<tr>
<td>Strategy for Research, Development</td>
<td>Stimulate and support applied research for the development or improvement of SPS&lt;sub&gt;ABC&lt;/sub&gt; with effective mitigation and adaptive capacity</td>
<td>Identification, selection and verification of new SPS&lt;sub&gt;ABC&lt;/sub&gt;, regarding their ability to increase resilience, adaptive capacity, productivity and control of GHG emissions, with a view to eventual inclusion in ABC+</td>
</tr>
<tr>
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<td>Intensification and expansion of research projects for the technological improvement of SPS&lt;sub&gt;ABC&lt;/sub&gt;</td>
</tr>
<tr>
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<td></td>
<td>Development and improvement of methods to evaluate the effectiveness of resilience, adaptive capacity, productivity and control of GHG emissions of SPS&lt;sub&gt;ABC&lt;/sub&gt;</td>
</tr>
<tr>
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<td></td>
<td>Development of monitoring technologies and support for the adoption of SPS&lt;sub&gt;ABC&lt;/sub&gt;</td>
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<tr>
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<td></td>
<td>Ampliação e fortalecimento das ações de monitoramento de resultados relacionadas ao aumento da resiliência e adaptação</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expanding and strengthening control of results related to increased resilience and adaptation</td>
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<tr>
<td></td>
<td></td>
<td>Expansion and strengthening of actions developed under the Multi-institutional Platform for Monitoring GHG Reductions in Agriculture (ABC Platform)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incentive to raise funds to finance agricultural research aimed at SPS&lt;sub&gt;ABC&lt;/sub&gt;</td>
</tr>
</tbody>
</table>
4. LEGAL BASIS
ABC+ is the improvement of the Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission (ABC Plan), established based on Decree No. 7.390, of 2010 (Article 3, item IV).

The main higher hierarchy norms that rule ABC+ are free translated from Portuguese and described in table 3. Please refer to bibliography section for the official names of laws and norms.

**TABLE 3.** Free translation of federal laws and norms endorsing ABC+ 2020-2030.

<table>
<thead>
<tr>
<th>LAW</th>
<th>LEGAL PROVISION (SUMMARIZED)</th>
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</thead>
<tbody>
<tr>
<td>Law No. 12.114, of December 9, 2009</td>
<td>Creates the National Climate Change Fund, amends articles 6 and 50 of Law No. 9,478, of August 6, 1997, and makes other provisions</td>
</tr>
<tr>
<td>Law No. 12.187, of December 29, 2009</td>
<td>Establishes the National Policy on Climate Change – PNMC, and makes other provisions</td>
</tr>
<tr>
<td>Decree No. 9.578, of November 22, 2018</td>
<td>Consolidates normative acts issued by the Federal Executive Branch that provide for the National Fund on Climate Change, referred to in Law No. 12,114, of December 9, 2009, and the National Policy on Climate Change, and referred to in Law No. 12,187, of December 29, 2009</td>
</tr>
<tr>
<td>Decree No. 10.145, of November 28, 2019</td>
<td>Provides for the Inter-ministerial Committee on Climate Change</td>
</tr>
<tr>
<td>Decree No. 10.431, of July 20, 2020</td>
<td>Establishes the National Executive Committee of the Sector Plan for the Consolidation of a Low Carbon Economy in Agriculture</td>
</tr>
<tr>
<td>LAW</td>
<td>LEGAL PROVISION (SUMMARIZED)</td>
</tr>
<tr>
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<tr>
<td>Decree No. 10.606, of January 22, 2021</td>
<td>Establishes the Integrated Information System of the Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission and the Technical Committee for Monitoring the Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission</td>
</tr>
<tr>
<td>MAPA Ordinance No. 323, of October 21, 2021</td>
<td>Establishes the Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission, with a view to Sustainable Development ABC+ covering the 2020-2030 decade</td>
</tr>
</tbody>
</table>
5. BIBLIOGRAPHIC REFERENCES


Preserving while producing is possible!