



**PLAN FOR
ADAPTATION AND
LOW CARBON
EMISSION IN
AGRICULTURE**

(2020-2030)

Strategic vision for
a new cycle

MINISTRY OF AGRICULTURE, LIVESTOCK AND FOOD SUPPLY
Secretariat for Innovation, Rural Development and Irrigation

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**PLAN FOR ADAPTATION AND LOW CARBON
EMISSION IN AGRICULTURE**
STRATEGIC VISION FOR A NEW CYCLE

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

Brasília
MAPA
2021



2021. MINISTRY OF AGRICULTURE, LIVESTOCK AND FOOD SUPPLY

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MESSAGE FROM THE MINISTER

Playing a crucial role in the global supply of agricultural products and provision of ecosystem services, Brazil has been successfully paving the way for making a new leap towards sustainability. The rational use of natural resources through tropical oriented sustainable production systems laid the foundation for the country to achieve self-sufficiency in food, fibers and energy and to be soundly present in the external markets. Therefore, the country has managed to increase substantially its agricultural output, without the need for converting new areas into farming.

The whole of this process has been dynamic and subjected to constant evolution. The growing awareness of consumers and the society as a whole regarding towards food safety, the pressing urgency to tackle climate change and the determination to achieve the Sustainable Development Goals (SDGs) stress the need for more sustainable, resilient and safe farming systems, a trend now reinforced by the COVID-19 pandemic.

Deeply connected with the urgency to reconcile food security with environment protection, Brazil is moving determinedly further advance in the sustainability of the agricultural sector in the coming years. Consistent with this path, the ABC Plan, unique in its scope and reach, is a key mechanism to fulfill Brazil's national and international commitments towards sustainable development, from which was possible to make immense progress in its first cycle in the period 2010-2020.

In this context, in line with SDG-2 (Zero Hunger and Sustainable Agriculture) and SDG-13 (Action against global climate change), the new version of the ABC Plan, the ABC+ 2020 - 2030, will establish new and reinvigorated sustainable strategies specifically adapted for all Brazilian biomes. Deeply rooted in science-based technological innovation for sustainable food production, the ABC+ will continue the positive adoption of sustainable agricultural practices that has been taking place in the Tropics with Brazil's continued leadership and engagement. Meanwhile ABC+ targets the year 2030, a solid foundation for adaptation and climate mitigation to be achieved by Brazil by 2060 is being laid in its wake.

Besides supporting adoption and maintenance of consolidated technologies proven to be sustainably efficient in the previous cycle, ABC+ will strengthen climate adaptation strategies and foster implementation of the "Integrated Landscape Approach", placing the country in the mainstream of major internationally recognized governance.

Combined strategies and actions aimed at the specificity of Brazilian biomes will allow for deepening even more adoption of resilient agricultural practices, improving income and raising the life standards in rural areas. Through ABC+, Brazilian crops will further adopt resilient systems that can also control GHG emissions. As a result, certified low carbon emission products are expected to be largely available to national and international markets.

The Brazil's long-term vision for sustainable agriculture and a safer world for future generations is deep seated in the Integrated Landscape Approach by cherishing the perfect harmony that must prevail among safe production, from resilient systems that promote the conservation of soil, water and biodiversity and that contribute to control GHG emissions. Paraphrasing, more food security, environmental protection, stable prices, quality jobs and therefore more social inclusion and political stability.

The future of sustainable agriculture in the tropics has already begun in Brazil! Producing and conserving is possible!

Tereza Cristina Corrêa da Costa Dias
Minister of Agriculture, Livestock
and Food Supply

ABC+

More sustainable, resilient and
competitive agricultural systems

PRESENTATION

This executive summary addresses the global strategy for the second cycle of the Brazilian Plan for Adaptation and Low Carbon Emission in Agriculture (ABC+), henceforth to be known as the “Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission (ABC+)”. This new cycle will run from 2020 to 2030, consolidating Brazilian agriculture as a sustainable powerhouse, firmly based on sustainable, resilient and productive farming systems.

The Action ABC+ Plan, will be launched in a few months, the contents of which will provide additional information such as the necessary actions and measurable goals for executing the ABC+.

In this second phase, the promotion of sustainable agriculture, will continue to be a crucial aspect of the Plan, now under an Integrated Landscape Approach becoming even more resilient in addition to contributing to the mitigation of greenhouse gases (GHG). To this end, successful strategies, adopted and consolidated in the first cycle (2010-2020), are being reinforced and improved with a view to fostering the adoption of science-based Sustainable Systems, Practices, Products and Production Processes (SPS_{ABC}).

For the new cycle (2020-2030), strengthened institutional governance along with monitoring and evaluation systems will provide integrated data that will allow for continuous improvement and transparent management. Measurement, Reporting and Verification (MRV) mechanisms, in accordance with internationally accepted scientific criteria, will

supplement economic incentives for the set-up of new market instruments capable of delivering added value from sustainable production systems.

Such an arrangement will facilitate communication and improve perception of the effective contributions from Brazilian sustainable farming systems, boosting Brazil’s domestic and overseas image.

By giving priority to regional-level actions under an Integrated Landscape Approach, the Brazilian Government will keep focusing on continuous technological innovation as the key driver for sustainable food production in its economic, social and environmental dimensions. Consequently, by the end of the second cycle, Brazil will be able to expand the number of farms that makes use of sustainable technologies. In the long run, this will pave the way for the entire Brazilian agricultural area to adopt sustainable and resilient production systems.

By jointly promoting actions for Brazilian agriculture to adapt to climate change events and mitigate greenhouse gas emissions, the ABC+ continues to be one of the most important national policies both for tackling climate change and for providing the world with food security, within the context of sustainable development.

ILLUSTRATION
OF THE ABC+

INTEGRATED STRATEGIES FOR PROPERTY RURAL MANAGEMENT

Keep motivation for adoption and maintenance of SPS_{ABC}

Encourage farm environmental compliance

Transfer of technologies, training, and technical assistance

Encourage and support scientific research and technological development

Strengthen mechanisms of recognition and appreciation

Foster economic, financial and tax-related instruments

Integrated data and information management system

**Sustainable Systems, Practices, Products and Processes*



CONCEPTUAL BASIS

INTEGRATED LANDSCAPE APPROACH (ILA)

FOSTER ADOPTION AND MAINTENANCE OF SUSTAINABLE SYSTEMS, PRACTICES, PRODUCTS AND PROCESSES

COMBINATION OF ADAPTATION AND MITIGATION STRATEGIES

CONCEPTUAL BASIS FOR THE ABC+

In order to face the adverse impacts of climate change and to increase the resilience and sustainability of Brazilian agriculture, the ABC+ will be based upon the following three main pillars:



I. Integrated Landscape Approach (ILA)

ILA considers that management of farming areas must take into account the different elements of rural landscapes, at their different levels and scales, reflecting their diverse, systemic and dynamic aspects. Incentives for the adoption and maintenance of Sustainable Systems, Practices, Products and Production Processes induce the integrated use of landscape components. Emphasis is placed on the efficient use of areas suitable for farming, with strong incentives to comply with environmental rules, to recognize the value of native landscapes, and to recover and conserve soils, water and biodiversity. Additionally, local goods and regional cultures will be recognized and empowered, broadening the portfolio of initiatives from the Brazilian Ministry of Agriculture, Livestock and Food Supply that foster sustainable agriculture. For the Brazilian territory, establishing this multifunctional approach enhances effective conservation of natural resources without losses to yields and farmers' income. Moreover, this approach is already promoting economic valuation of ecosystem services generated during food production, in addition to contributing to solving land use conflicts, through better planned land use.

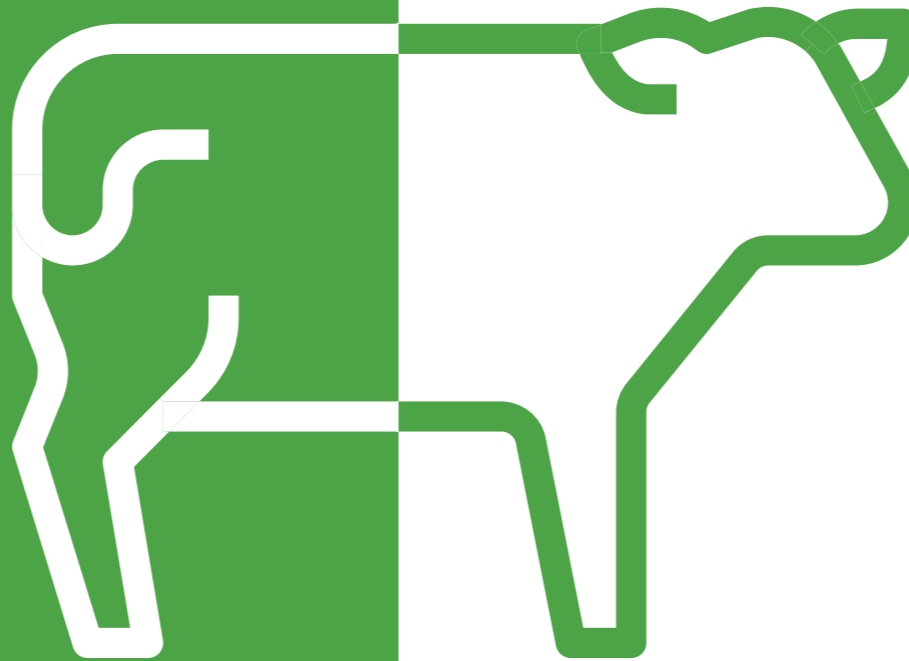
II. Synergy of adaptation and mitigation strategies

Mitigation strategies, through SPS_{ABC} , limiting current and future emissions and/or providing GHG sinks, are recognized as effective means for dealing with the threats posed by climate change. However, the increasing frequency of extreme events underscore the urgency of strengthening actions to reduce the vulnerability of farming systems and to increase the sector's resilience. In this context, strategies, processes and tools have focused on adaptation and mitigation, key elements for effective public policies in both the short and long run, when applied on a local scale. Adaptation strategies will focus on promoting: (i) adoption and maintenance of conservation practices; (ii) adoption and maintenance of integrated systems; and (iii) genetic improvement and recovery of biodiversity. In order to promote sustainability in its broadest dimensions and to strengthen the resilience of farming systems, ensuring production efficiency and profitability despite the threats posed by climate change, it is necessary to put together factors like: (i) integrated risk management, climate forecasting, land use zoning and early warning systems. All of them backed by effective damage control programs; (ii) systems for analyzing socioeconomic and environmental performance, and; (iii) technical assistance.

III. Foster adoption and maintenance of Sustainable Systems, Practices, Products and Production Processes

Conservationist farming practices are pivotal for efficient management of agricultural systems as well as for strengthening their resilience and sustainability. Conservationist practices can be defined as “a group of technologies in a systemic arrangement, meant to preserve and restore or recover natural resources with integrated management of soil, water and biodiversity, with suitable use of external inputs”. Regardless of production systems and locations, conservation agriculture follows three fundamental precepts: (i) reduction or suppression of soil mobilization; (ii) maintenance of crop residues over the soil surface; and (iii) diversification of species, in rotation, intercropping and/or succession of cultures¹. These sustainable production technologies ensure efficiency and profitability, while promoting conservation of ecosystems and natural resources, strengthening the resilience of the farming system.

¹ <https://www.embrapa.br/busca-de-noticias/-/noticia/48440960/agricultura-conservacionista-conheca-os-preceitos-e-praticas-para-o-cerrado>



ABC+ STRATEGIES

To achieve the goals set out in the second cycle of the ABC+ , considering the above-mentioned pillars, strategies being implemented are aiming at:

I. Maintaining motivation for adoption of conservationist and sustainable farming systems, fostering increased productivity and income, resilience and control of greenhouse gas emissions

In this second round, the ABC+ is promoting the adoption of SPS_{ABC}, also present in the previous cycle, namely: (i) integrated systems (ICLF, ICL, ILF and other agroforestry systems) and no-tillage systems; (ii) biological nitrogen fixation (BNF); (iii) planted forest; (iv) restoration of degraded pastures, and; (v) animal waste management. Other science-based SPS_{ABC}, proven to be effective in tackling climate change, are being developed and included, taking into account specificities such as soil, climate, water and the ecosystems of Brazilian biomes and their geographic zones. This ensures greater yields and resilience of farming systems and provides effective control of GHG emissions from Brazilian agriculture.

II. Strengthening initiatives for technology transfer and diffusion, training and technical assistance

Technical assistance, supported by training, is considered the main transformative instrument in the first cycle of the ABC Plan. Farm monitoring by trained professionals allows for not only the proper and correct adoption of recommended systems, but also for the measurement of results being reaped from such systems. The so-called reference units (which are on-farm models for validation, demonstration and technology transfer) have been an important catalyst for technical updating of professionals as well as for sources of feedback for research. To boost technical skills of professionals involved in technical assistance and rural extension, new ways of disseminating information are also being explored, enhanced by the increasing use of digital technologies in the field and connectivity in farming areas.

III. Encouraging and supporting applied research for development or improvement of Sustainable Systems, Practices, Products and Production Processes

Based on a robust national scientific framework and participation of the scientific community and with the aim of strengthening the ABC+, ideas for innovation related to sustainable technologies for agricultural production are being tirelessly sought and permanently incorporated with a focus on increasing resilience, yields and income, and controlling GHG emissions.

IV. Expanding mechanisms that recognize and reward farmers for adopting Sustainable Systems, Practices, Products and Production Processes

Developing revenue streams for ecosystem services (markets for environmental services) represents a strong incentive for large-scale adoption and dissemination of SPS_{ABC} by farmers. These include a wide range of economic incentives and market instruments, such as certifications of different types and scopes, identification of origin and traceability, among others. The main goal is to recognize effective efforts from the farming sector towards incorporating and maintaining sustainable production systems, promoting conservation of natural resources, while ensuring productivity and food supply. These instruments are also strategic for communication to both Brazilian and international audiences regarding the efforts made and results achieved by the Brazilian farming sector in terms of sustainability.



V. Fostering diversified financial and tax related instruments to support Sustainable Systems, Practices, Products and Production Processes

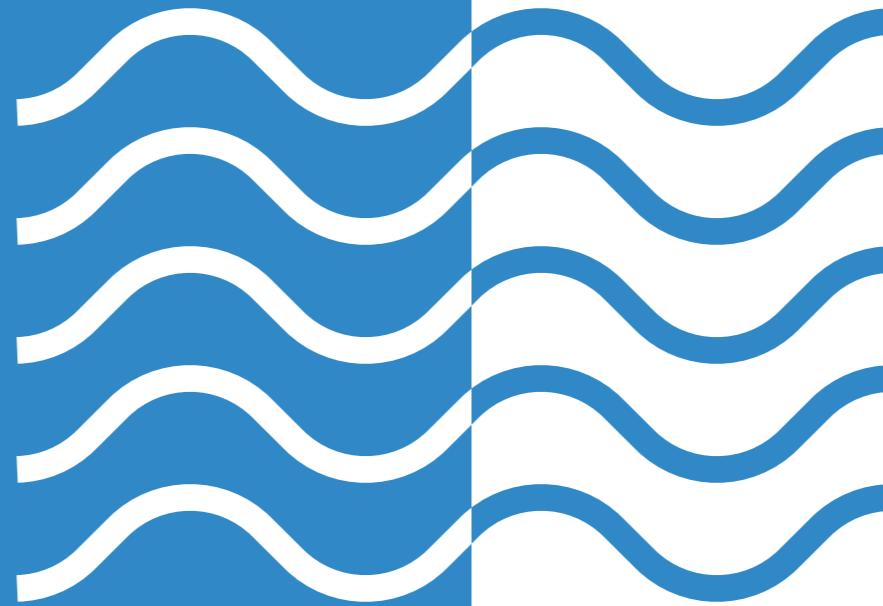
Cross-cutting instruments for trading carbon credits will encourage the use of SPS_{ABC} in this new cycle, in addition to those present in the previous cycle – the ABC Program and the “Plano Safra” (annual budget for farming support). This will enable the involvement of different financial agents, both, public and private, in a comprehensive process of effective promotion of sustainability in Brazilian agriculture.

VI. Improving the ABC+ information management system for putting in place effective Measurement, Reporting and Verification (MRV) Mechanisms

The integrated data management system (ABC Plan Information System - SINABC) will be responsible for the systematization and consolidation of actions and results throughout the Plan's execution. SINABC will incorporate data from the ABC Plan Governance System (SIGABC), the System for Rural Credit Operations and Farming Insurance (Proagro - Sicor), as well as from the multi-institutional platform for monitoring GHG reductions from agriculture (ABC Platform). Information consolidated in SINABC, in its turn, will be monitored and validated by the Technical Committee for Monitoring the ABC Plan (CTABC), which is in charge of defining guidelines for monitoring results from the ABC+ implementation. In addition, the National Executive Committee of the ABC+ (CENABC) will periodically monitor and follow up on implementation. Putting this new governance structure into practice will allow for proper evaluation of effectiveness and efficiency of all efforts undertaken by the Brazilian agricultural sector to cope with climate change in a transparent manner, supported by a solid mechanism of evaluation, monitoring and reporting.

VII. Promoting an Integrated Landscape Approach in order to encourage compliance with environmental rules and sustainable production

Encouraging adoption and maintenance of SPS_{ABC} spurred by the ABC+ aims at bringing about an integrated use of landscape components, so that it is possible to increase production whilst protecting ecosystems. In this case, emphasis is placed on efficient use of areas with potential for farming, with strong incentive for environmental compliance, as well as for restoring and conserving soil, water and biodiversity. The application of all these sustainable technologies will add value to local assets and to regional cultures, integrating the set of initiatives led by the Ministry of Agriculture, Livestock and Food Supply of Brazil to promote sustainable farming.



FINAL COMMENTS

The ABC+, originally conceived by the Ministry of Agriculture, Livestock and Food Supply of Brazil, has been vital for deeply aligning both productivity and sustainability in Brazilian agriculture, with a solid package of sustainable technologies being efficiently applied and mainstreamed. Since its inception in 2010, the ABC Plan, with its deliverables, has significantly contributed to the 2030 Agenda for Sustainable Development, in particular for both SDG 2 (Zero Hunger) and SDG 13 (Climate Action).

Unique for its scope and reach, the ABC+ represents a deep commitment from the Brazilian farming sector to support global efforts to tackle climate change. As such, it promotes the use of production technologies adapted to the tropics as well as the continuous improvement of agricultural production systems on a sustainable basis. Backed by strong scientific evidence, both strategies allow, in addition to environmental gains, for greater productive efficiency, expansion of socioeconomic gains, increased resilience of agriculture and mitigation of greenhouse gas emissions, among other benefits.

After robust results from its first cycle, the

Brazilian Ministry of Agriculture, Livestock and Food Supply initiated a profound reflection process which led to the establishment of the second cycle of ABC plan. Known as “Brazilian Agricultural Policy for Climate Adaptation and Low Carbon Emission - 2020-2030”, its purpose is to combat the adverse impacts of climate change on an ongoing basis, promoting increased resilience and sustainability in the agricultural sector and providing economic and food security nationally and worldwide.

In line with the premises presented in this document, there will also be a “The Action ABC+ Plan”, which will contain additional detailed information necessary for setting it in motion. Establishing a clear and transparent governance process will allow for the continuous improvement of the goals, actions and initiatives contained in the proposed Plan of Action, in line with the Brazilian Government’s resolute effort to develop, strengthen and promote a sustainable basis for its agriculture.



Producing and
conserving are possible!

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