



BRAZIL'S "LOW-CARBON AGRICULTURE" PROGRAM: BARRIERS TO IMPLEMENTATION

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Brazil occupies a unique position: it is not only a leader in commodity production, but also in the mitigation of carbon emissions from deforestation. Given the current rise in commodity prices, the country must be prepared to link the conservation of its forest stocks to the expansion of agriculture and ranching. This will only be possible by improving productivity. To achieve this, Brazil launched the "Low-Carbon Agriculture" Plan and a special line of credit: the ABC Program. However, the program has been slow in getting off the ground. To understand why, the Amazon Environmental Research Institute (IPAM) conducted more than forty interviews with members of various producer, cooperative, association and industry groups, as well as the government. Through these interviews, we identified barriers to implementing sustainable practices, especially those related to the ABC Program. The results of these interviews are discussed in this report.

LOW-CARBON AGRICULTURE IN BRAZIL: BACKGROUND

Brazil occupies a unique position: agricultural production has increased over the past ten years as deforestation in the Amazon has fallen significantly (Figure 1). However, Brazil is now at a crossroads: it must reconcile its dual roles as key provider of agricultural commodities and world leader in mitigating climate change by reducing deforestation.

The evolution of Brazilian agriculture is noteworthy. From the 2001–02 harvest to that of 2010–11, grain production increased by 65%, while the amount of planted area expanded by 25%. At the same time, annual deforestation in the Amazon fell from approximately 21,000 km² in 2001–02 to 6,200 km² in 2010–2011. Since the creation of the National Plan on Climate Change (NPCC) in 2008, Brazil has demonstrated the political will to reduce its emissions of greenhouse gases (GHG), culminating in the voluntary goals for emissions reductions it announced at the 2009 Conference of Parties (COP) in Copenhagen. The country proposed to reduce emissions by 36–39% by 2020 by adopting plans for various sectors and setting goals for reducing deforestation (Brazil, Law 12.187/2009). It aims to reduce deforestation by 80% in the Amazon and by 40% in the Cerrado by 2020, in comparison to its historic baseline (Brazil, Decree 7.390/2010).

Brazil: Slowing Deforestation while Increasing Agricultural Production

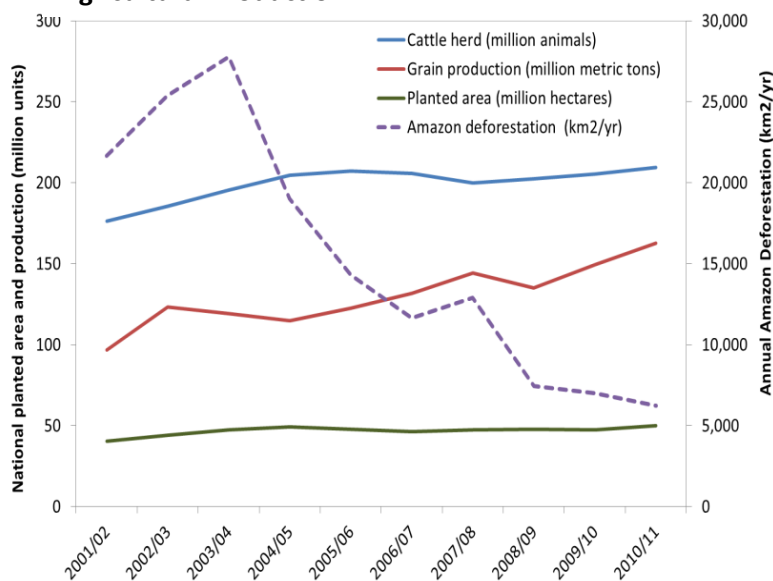


Figure 1. National data on planted area (CONAB), cattle herd (IBGE), grain production (CONAB) and deforestation (INPE).

The plan that focuses specifically on the agricultural sector is the "Low-Carbon Agriculture" Plan (ABC), coordinated by the Ministry of Agriculture, Livestock and Food Supply (MAPA) and the Ministry of Agrarian Development (MDA). It seeks to reduce carbon emissions by promoting best practices in agriculture through a dedicated line of credit, the ABC Program.

Despite advances in policies for stimulating a reduction of GHG emissions, the results achieved by Brazil in reducing emissions caused by deforestation (representing 1.5% of global emissions) may be threatened. The demand for commodities has been growing more rapidly than supply, causing increases in prices and the profitability of converting forests and Cerrado. The potential expansion of agriculture may reverse the progress made so far in conserving forest stocks in the Amazon and, as a result, may compromise national goals for reducing deforestation. For Brazil to maintain its leadership in commodity production for internal and export markets, it can pursue one of two opposing paths: (a) a horizontal expansion of agriculture, leading to more deforestation; or (b) a goal of low-carbon development in rural areas, where best practices in agriculture and ranching would increase their productivity and would not lead to new deforestation.

FINANCING FOR LOW-CARBON AGRICULTURE AND RANCHING

The agriculture and livestock plan for 2011–12 allocated US\$53.6 billion (R\$2/US\$1) for agricultural credit. Around 75% of this amount is earmarked for crop financing and commercialization, while 19% is reserved for investment. Of the R\$20.5 billion reserved for investments, only R\$3.15 billion is specifically earmarked for Low-Carbon Agriculture through the ABC Program.

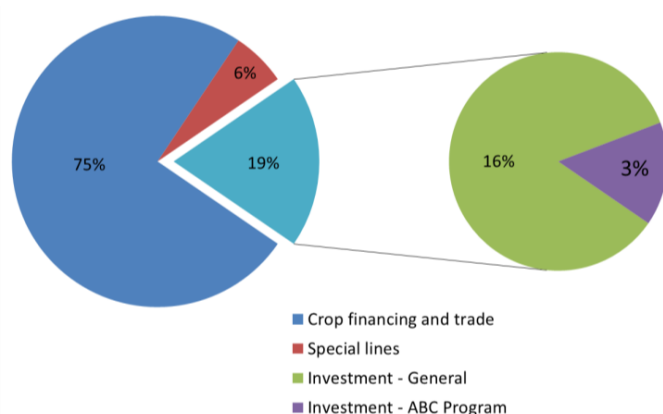


Figure 2. Distribution of credit according to activity (%).
Data drawn from the 2011–12 Agriculture and Livestock Plan.

This program aims to stimulate the implementation of intensive practices (e.g., crop and livestock integration, livestock intensification) which is an alternative for Brazil to increase its productivity and reduce associated GHG emissions.

The creation of the ABC Plan is a sign that Brazil is committed to more efficient agriculture and ranching with lower GHG emissions. However, implementation has been slow. To better understand the reasons why the adoption of low-carbon practices has been so sluggish, IPAM conducted more than forty interviews with organizations of producers, landowners, banks, government agencies (municipal, state, and federal), industry, and nonprofits. In addition, IPAM visited six municipalities in Mato Grosso and Pará from August to November, 2011. This report presents the results of the interviews and visits in order to identify and evaluate the barriers preventing the rapid implementation of a low-carbon agriculture in Brazil.

These practices do not, however, guarantee the end of deforestation, but must be accompanied by effective command and control policies, as well as market and/or economic stimulus programs to promote this transition. The adoption of such practices in Brazil has been slow and irregular. In the next section, we discuss the main barriers to the adoption of more efficient practices, which we call “low-carbon agricultural and ranching practices.”

THE ABC PROGRAM

The aim of this program is to stimulate more sustainable practices through specific activities such as: no-till agriculture; recuperation of degraded areas; integration of crops, livestock, and forest; planting of commercial forests; biological nitrogen fixation; and treatment of animal residues. Each producer has a credit limit of US\$500k, with an annual interest rate of 5.5% and a repayment period of 5–15 years. The Program was created during the 2010–11 harvest with a fund of US\$1 billion. For the 2011–12 harvest, the amount of available credit has risen to US\$1.6 billion.

GENERAL BARRIERS

- **Uncertainty about the Forest Code.** While the Code was making its way through Congress, many producers who had been complying with environmental legislation interrupted their activities due to uncertainties about the new legislation. The Code was approved in the House of Representatives and was recently subject to revisions by the President (May 25, 2012). These revisions still need to be approved (or not) by the House of Representatives.
- **Institutional weakness in states.** Due to uncertainty over federal legislation (Forest Code), as well as state legislation (for example, zoning issues in Mato Grosso), producers are awaiting greater clarity to make the transition to sustainable practices
- **Absence of a REDD+ jurisdictional system.** The implementation of jurisdictional systems (based on state programs) for REDD (which is different than a project based approach), has taken longer to set up than expected. As a result, producers' confidence that these systems will provide incentives to maintain forests on private land has diminished.
- **Absence of zoning for the Savanna Biome.** The absence of zoning for this biome means that producers have no guidelines on the areas that are available for crop expansion. As a result, production is taking place in a disorganized fashion, without enough attention to its sustainability.
- **Insufficient knowledge about opportunities for integration and intensification.** Although the Brazilian Agriculture and Livestock Research Agency (EMBRAPA) has produced good research, many producers are not aware of the potential benefits of adopting new agricultural and ranching practices. Even when they are aware of such practices, few of them are convinced that adopting these practices would lead to financial returns that would justify their use.
- **Slow pace of implementing certification programs.** The implementation of certification by groups such as the Roundtable on Responsible Soy (RTRS), the Roundtable on Sustainable Palm Oil (RSPO), and Bonsucro is necessary for market transformation. However, certification programs are in the early stages of implementation. Certification is necessary, since it would exclude producers who are not in compliance with environmental legislation, labor laws, and the rights of indigenous and traditional populations.
- **Lack of technical assistance.** Public agencies for technical assistance do not have adequate structure or personnel to help/train small and medium producers in more sustainable production methods.
- **Difficulty in getting access to low-interest credit.** Although there are sources of "cheap" credit, many producers do not have access to them due to problems such as credit history, lack of information about sources of credit, failure to fulfill environmental legislation, inability to prove land ownership, lack of technical knowledge about elaborating projects, and so on.
- **"Expensive" credit.** When producers are unable to access government subsidized lines of credit, they take out personal loans or loans from trading companies, which are significantly more expensive. Since producers do not always have certainty that sustainable practices will yield more profit, they use the credit they can obtain for practices they already know rather than directing it toward low-carbon investments
- **Costs to comply with environmental legislation are prohibitive for small producers.** Small and medium producers are often excluded from more organized supply chains, since they are not in compliance with environmental legislation.

SPECIFIC BARRIERS TO THE ABC PLAN

The ABC Program is the credit component of the ABC Plan. During the first year (2010–11) of the operation of the ABC Program, only five projects received contracts, totaling U\$1.7 million (0.16X% of the total). In the second year (2011–12), with a budget of U\$1.6 billion, 2,144 projects were contracted by February 2012, with a total value of U\$251 million (12.5%). The states with the greatest access to the program were, in descending order: Minas Gerais, Paraná, Rio Grande do Sul, São Paulo, Goiás, Mato Grosso do Sul.

The reason for undertaking this study arose in mid-2011, when the sums under contract were still very low. Since the completion of the interviews, the situation has changed significantly. In December, 2011, contracts totaled U\$39 million, increasing to U\$251 million in February–March, 2012. It was recently announced that Bank Of Brasil has already disbursed U\$425 million up to June 2012. Nevertheless, many of the barriers surveyed during the interviews persist. **Below we list some of the specific barriers to the ABC Program:**

- **L**ack of technical expertise to evaluate and validate sustainable initiatives (banks and producers). The aim of the Program is to move towards a practice of Low-Carbon Agriculture that is consistent with the nationwide aims of the National Policy on Climate Change (NPCC). The transition to this type of agriculture requires investments and specific knowledge. Although EMPRAPA has already developed much of the technical knowledge, banks have difficulty in finding trained experts who can analyze the projects and assess their risks. Similarly, producers are in need of technical assistance for elaborating and monitoring their projects. The cost of these steps has been a barrier.
- **T**he actual cost of the loans (in interest) is higher than the annual interest rate of 5.5% that was originally announced:
 - Some producers state that bank managers made their offers of ABC loans conditional on signing contracts for other financial services, thereby increasing the actual cost of an ABC loan.
 - To get access to the ABC Program, a producer's technical project description must be signed by an agricultural engineer. The cost of elaborating these projects varies, but can be as much as 5% of the loan.
- **F**or some activities, such as the integration of crops, livestock, and forest, sufficient fieldwork with producers, which could demonstrate the economic results of such practices, is lacking. Although EMPBRAPA has pursued some field studies, substantially more publicity and extension services are needed.
- **I**n the Amazon Biome, access to ABC requires Rural Environmental Registration (RER, or "CAR" in Portuguese) in order to comply with Resolution 3545/08 BACEN. Many producers (especially the small ones) lack the technical expertise or financial resources to complete a CAR.
- **B**ank managers and producers have a limited understanding of the ABC Program:
 - Some bank managers said they were not familiar with the ABC Program or did not know how to access it.
 - Although a few managers were familiar with the Program, they did not have access to its resources.
 - This situation changes somewhat after the largest ABC lender, the Bank of Brazil, conducted training sessions focused on ABC and established goals for their branch managers.
- **W**hile banks have the challenge of finding technical personnel qualified to evaluate the risks of projects requesting loans, the banks themselves are the ones taking on the loan risks. Banks, therefore, consider it more advantageous to give out lower-risk credit (such as loans for agricultural machines and implements through Moderfrota).
- **T**he federal government announced the availability of U\$1.6 billion for the ABC Program in 2011–12. However, the requirements imposed by the Brazilian Bank for Economic and Social Development (BNDES) have made it unfeasible for some private banks and credit unions to work with this line of financing. The Bank of Brazil, on the other hand, with R\$850 million of its own resources, has made rapid progress in lending money recently.

RECOMMENDATIONS

Here are some suggestions for accelerating the adoption of sustainable practices. These actions are intended to reduce the barriers discussed above.

A monitoring group for ABC and its economic indicators should be created. Although discussed in the ABC Plan, such a group has not yet been created.

Public technical assistance should be reactivated and strengthened so that small and medium farmers and ranchers can get access to resources.



BNDS should revise their criteria for making ABC loans.

Public relation efforts aimed at producers should be pursued, whether through field days or demonstrations of the impact of low-carbon practices.

Technical experts and producers should be trained through courses and multiplier agents

Finally, **other opportunities to advance low-carbon agriculture should be explored:**

Certification programs that deal with best practices for agriculture and livestock. An example is the RT-REDD Project in which IPAM participates. This Project links the benefits of Reducing Deforestation and Degradation in order to stimulate sustainable supply chains^{1,2}

The creation of innovative financial mechanisms that favor producers who demonstrate good environmental practices. For example, interest rates under the ABC Program could be reduced for producers who are in compliance with environmental legislation



The Amazon Environmental Research Institute (IPAM) is a scientific, nongovernmental, and nonprofit organization that has been working for seventeen years toward a form of sustainable development in the Amazon that promotes economic growth, social justice, and the functional integrity of the region's ecosystems.

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What is it?

Jurisdictional REDD+ systems are public policies for REDD+ that involve the entirety of a political jurisdiction (country, state, or municipality). The accounting method used for emissions (and reductions) is applied to the jurisdiction as a whole, reducing the risk of leakage.

¹ See IPAM's report on RT-REDD at: http://bit.ly/Report_RT-REDD

² The original article in Nature mentioning the RT-REDD project can be found at: http://bit.ly/Nature_RT-REDD

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