

Seeds for **Tomorrow**

Brazilian Agricultural Policies



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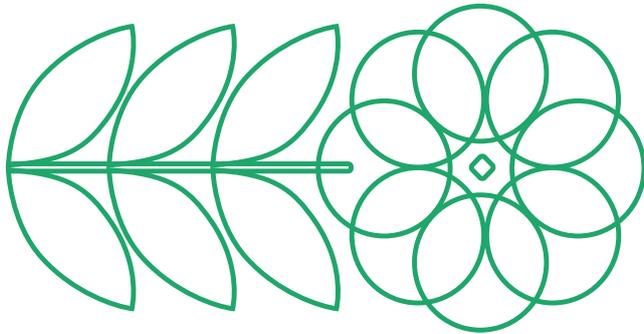
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Cover photo © WFP/Gabriela Moreno
Published april 2025.



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Introduction

Ensuring food and nutrition security and strengthening family farming are key challenges for sustainable development in the Republic of Congo. As food demand rises and the need to promote local production becomes more urgent, effective public policies and strategic initiatives are crucial to expand market access for smallholder farmers and enhance community nutrition.

The project ***“Enhancing family farmers’ access to local markets in the Republic of Congo through South-South Cooperation”*** is a joint effort between the India, Brazil and South Africa Fund (IBSA Fund), the governments of the Republic of Congo and Brazil, and the World Food Programme (WFP) **with the aim of supporting the implementation of home-grown school feeding (HGSF) in the Republic of Congo.**

Strengthening family farming and integrating small-scale producers into institutional markets are challenges for **food and nutrition security and rural development in the Republic of Congo.** To support this process, the Congolese government identified the need to adapt and learn from other countries’ successful experiences, such as Brazil, where robust policies have stimulated productive inclusion of family farmers and provision of social programmes such as school feeding.

This manual is intended to inform decision-makers and public sector officials about key Brazilian agricultural policies for family farming, including institutional purchasing mechanisms, access to rural credit, technical assistance and agricultural research.

Based on the experience of institutions such as the National Institute for Colonisation and Agrarian Reform (Incra), the National Supply Company (Conab), the Brazilian Agricultural Research Corporation (EMBRAPA), the Ministry of Agrarian Development and Family Farming (MDA), the Ministry of Development and Social Assistance, Family and the Fight against Hunger (MDS), and the National Agency for Technical Assistance and Rural Extension (Anater), as well as policies and programmes such as the National Programme for Strengthening Family Farming Development (PRONAF), the Food Acquisition Programme (PAA) and the National School Feeding Programme (PNAE), Brazil has structured a set of initiatives that promote sustainable rural development and food and nutrition security.

By sharing these lessons, this document aims to contribute to developing effective strategies in the Republic of Congo, strengthening institutions, and promoting policies that improve family farmers’ access to local markets.

Enjoy reading!

AGRICULTURE IN BRAZIL

Agriculture is an essential pillar of the Brazilian economy, playing a crucial role in the country's **economic growth** and **social development**.

Brazilian agriculture is distinguished by its wide variety of crops, ranging from **agricultural commodities**, mainly intended for export, to **family farming**, which is fundamental to ensure food and nutrition security for the Brazilian population.

ECONOMIC IMPORTANCE

Agriculture accounts for about **5% of Brazil's GDP (Gross Domestic Product)**, but when agro-industry and other related sectors are included, this figure rises to about 20% of the GDP.

In addition, the agricultural sector accounts for nearly half of Brazil's exports, particularly soybeans, corn, sugar, coffee, beef and pork. Brazil is one of the world's largest food producers and exporters, making agriculture a strategic sector for the national economy and foreign trade.

MAIN PRODUCTS ON FAMILY FARMING

Brazil has a vast agricultural production area, estimated at around 80 million hectares (IBGE, 2017). The main agricultural crops for export are:



Soybeans

The main export product, with Brazil being the world's largest producer.



Corn

Essential for animal feed production, with marginal use for human consumption.



Coffee

Brazil remains the world's leading producer and exporter of coffee.



Sugar cane

The basis for sugar and ethanol production, has a major impact on national and international markets.



Cotton

The country is one of the world's largest cotton exporters.



Beef, pork and chicken

Livestock contributes significantly to the export agenda, with Brazil leading the way in beef and chicken exports.

FARMER PROFILE

In general, Brazilian farmers can be classified into two distinct categories: family farmers and commercial farmers.

According to the latest agricultural census, although family farming establishments occupy only 23% of rural space, they account for approximately 70% of rural establishments and 67% of the workforce employed in rural areas (IBGE, 2017).

In addition, family farming is responsible for most of the food consumed in the domestic market. It is estimated that 70% of the food consumed by Brazilians is produced by family farming, which plays a fundamental role in food security.

Who are family farmers?

In Brazil, the law officially defines the status of family farmer based on four main criteria

- 1 Area:** they own rural properties comprising up to four fiscal modules (the fiscal module size varies by region, but is generally between 5 and 110 hectares);
- 2 Labour:** most production activities must be carried out by family members;
- 3 Income:** the majority of the family's income must come from farming on the property itself; and
- 4 Management:** the nuclear family must be responsible for managing the business.

This production profile ranges from small farmers who grow food for their own consumption to those who participate in local and regional markets, reflecting a wide variety of realities.

MAIN PRODUCTS OF FAMILY FARMING

The main products of family farming are:

- **Beans**
Approximately 70% of the beans consumed in Brazil are produced by family farmers.
- **Vegetables and fruit**
Small farmers grow a wide variety of fruit, vegetables and leafy greens.
- **Milk and dairy products**
Milk production is heavily dominated by family farming.
- **Coffee**
Family farms in south-eastern and north-eastern Brazil grow coffee, contributing to both the domestic market and exports.
- **Cassava**
Widely grown by family farmers, particularly in the northeast.

IDENTIFICATION OF FAMILY FARMERS

Brazil has a register of beneficiaries of family farming support policies, called **National Family Farming Register (CAF)**.

Individual farmers, rural enterprises and family farmer associations (legal entities) are registered in the CAF.

CAF registration is a prerequisite for access to policies aimed at developing and strengthening family farming, such as rural credit, technical assistance and public food purchase programmes.



MAIN AGRICULTURAL POLICY INSTRUMENTS FOR FAMILY FARMING

To support and promote agricultural development, Brazil uses a range of agricultural policy instruments aimed at family farming. Five of these are presented below.

- 1 Public procurement of food from family farming:** initiatives such as the purchase of food for stockpiling through a simplified procurement process, and purchases from family farming for the **PNAE** and **PAA**.
- 2 Access to land:** **Incra** is responsible for land regularisation in Brazil. Agrarian reform promotes land redistribution with legal security for family farmers.
- 3 Rural extension:** through **Anater**, the government trains small farmers by providing them with technical, educational and organisational knowledge to improve productivity and sustainability of agricultural practices.
- 4 Rural credit:** provided in the **Safra Plan**, rural credit is available both for investment and for calculating the cost of agricultural production. Rural credit lines are available from both public and commercial banks (see the section on PRONAF).
- 5 Agricultural research:** EMBRAPA develops technologies and methods that increase productivity, promote sustainability, and improve the quality of agricultural products.

 <p>Food procurement</p>	<p>▶ Public institutions</p>	<ul style="list-style-type: none"> ▶ Purchase of food for consumption or to build up stocks ▶ Simplified purchasing process to facilitate the participation of family farms
 <p>Access to land</p>	<p>▶ National Institute for Colonisation and Agrarian Reform (Incra)</p>	<ul style="list-style-type: none"> ▶ Land regularisation in Brazil ▶ Registration of rural properties
 <p>Rural extension</p>	<p>▶ Rural extension National Agency for Technical Assistance (Anater)</p>	<ul style="list-style-type: none"> ▶ Coordination of technical assistance and rural extension policy ▶ Working directly with smallholder producers, particularly family farmers
 <p>Credit</p>	<p>▶ Institutions of the national banking system</p>	<ul style="list-style-type: none"> ▶ Provision of credit lines for investments and production costs ▶ Implementation through commercial banks, which are responsible for financial transactions
 <p>Research</p>	<p>▶ Empresa Brasileira de Pesquisa Agropecuária (Embrapa)</p>	<ul style="list-style-type: none"> ▶ Agricultural research with research centres throughout Brazil ▶ Research centres dedicated to specific topics in the region

1

Public procurement of food from family farmers

Programmes for public procurement of family farming food products in Brazil aim to support these producers by guaranteeing markets while promoting **food and nutrition security** for the population.

These programmes encourage social inclusion and sustainable development in rural areas. The main programmes are:

The **PNAE** aims to guarantee school meals for all public basic education students, contributing to their growth and biopsychosocial development, learning, academic performance, and creation of healthy eating habits. Since 2009, the programme determines that at least **30% of the amount paid by the federal government must go to states, municipalities and federal institutions for the purchase of products from family farmers.**

The **PAA** is a policy that purchases food for people experiencing food and nutrition insecurity, as well as for the social assistance network, public food and nutrition security facilities, and the public and philanthropic education network. **These purchases are made directly from individual family farmers or their organisations (cooperatives and associations).**



Purchases of foodstuffs from family farmers under PAA and PNAE are preferably made through a public call, an instrument created to simplify purchases by **waiving the usual bidding process.**

NATIONAL SCHOOL FEEDING PROGRAMME (PNAE)



The PNAE determines that at least 30% of the resources transferred by the federal government to states, the Federal District, municipalities and federal schools must be used to purchase food directly from family farmers and small rural entrepreneurs or their organisations, giving priority to land reform settlements, traditional indigenous communities, quilombola communities, and formal and informal women's groups. To this end, it authorises the use of a formal and simplified administrative procedure known as a 'public call'.

Recently, the federal government enacted a law that prioritises purchasing food from formal and informal family farming groups of women. Under this provision, at least 50% of the family's sales must be registered to the woman's name. In this way, the PNAE contributes to food and nutrition security for students and strengthens the local economy by encouraging sustainable production and promoting family farmers.



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1 National School Feeding Programme (PNAE)

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2 Executing entities (state and municipal education secretariats and federal schools)

Executing entities are responsible for the Programme's operation. They manage financial resources received from FNDE and contribute to the programme with their own resources. They plan food purchases (of which at least 30% must come from family farmers), ensure that meals are prepared and served in schools under appropriate conditions, and report to the FNDE.

3 School Feeding Councils (CAE)

They supervise the implementation of the PNAE at the local level, monitor food purchases (including those from family farmers), ensure that adequate and nutritious meals are served to students as planned, and report on the executing entities' provision of accounts to FNDE. Its membership includes one representative of the executive power, two representatives of education workers and students, two representatives of parents and/or guardians of students, and two representatives of civil society organisations (such as development committees and family farming organisations). Each member must have an alternate from the same segment.

1 Steering Committee

The Steering Committee was re-established to develop specific interministerial actions to qualify and increase the percentage of food purchased directly from family farmers in order to meet requirements of the school menus. It brings together members from various ministries and government agencies, such as the Ministry of Agrarian Development and Family Farming; Agriculture, Livestock and Supply; Fisheries and Aquaculture; Development and Social Assistance, Family and Fight against Hunger; Health; Indigenous communities; Racial Equality; CONAB and others

2 Advisory Group

Also recreated in 2023, the Advisory Group works to implement joint actions aimed at qualifying the process of acquiring food directly from family farmers in order to meet demand. This collegial body reaffirms the values of citizenship and democracy and plays a fundamental role in defending the right to school meals. It is composed of representatives from civil society, including farmers' associations, extractivists, quilombolas, indigenous peoples, cooperatives and school food advisers. Representatives from the National Council for Food and Nutrition Security (Consea), the National Union of Municipal Education Leaders (Undime) and the National Council of Education Secretariats (Consed), among others, also participate.

FOOD ACQUISITION PROGRAMME (PAA)



The Food Acquisition Programme (PAA) was created in 2003 as part of the Fome Zero (Zero Hunger) programme. It aims to strengthen family farming and expand access to healthy and adequate food, particularly for the most vulnerable populations, by promoting food and nutrition security. It is unique in that it exempts family farming products from going through a bidding process, which facilitates the participation of farmers. The programme operates through its own tendering, selection, procurement and accountability mechanisms, adapted to the reality of family farming.

Find out more about the PAA:



Purchase with simultaneous donation

Enables the purchase of food from family farmers for distribution to people facing food insecurity, through public and private non-profit institutions such as schools, nurseries, shelters and food banks.



Stockpiling

Supports family farming organisations in building food stocks at the level of rural properties, cooperatives and production centres. This facilitates access to local and regional markets. The support is destined for supplier organisations to create food stocks for subsequent sales, allowing the return of resources to the government or the provision of products to contribute to the development of food and nutrition security actions.



Direct purchase

Conab purchases products from family farmers for various purposes, such as price regulation and sustainability, creation of regulatory and strategic stocks, supply and distribution of food in situations of emergency or public disaster, or to meet specific food and nutrition security requirements. Unlike stockpiling, Conab owns the products it purchases.



Incentives for milk production and consumption (PAA Milk)

This programme aims to strengthen the family farming milk production chain (cattle and goats) and distribute it to vulnerable populations.



Institutional purchases

Enables the purchase of products from family farmers to meet the food or propagation-material requirements of federal public agencies and companies. It stipulates that these purchasing agencies must direct at least 30% of their budget to purchasing food from family farmers. It also creates legal instruments that enable public institutions to purchase food directly from family farmers to supply hospitals, universities and other federal higher education and research institutions, prisons, barracks, public offices, among others.



WOULD YOU LIKE TO KNOW MORE?

Below, we explain each aspect of the PAA in detail:



Purchase with Simultaneous Donation

The PAA Purchase with Simultaneous Donation (CDS) modality consists of purchasing food from family farmers and distributing it directly to people in situations of food insecurity, through public institutions or social assistance organisations such as schools, nurseries, food banks and shelters.

CDS also allows purchase of seeds, seedlings and cuttings from family farming organisations to be given to farmer families in situations of social vulnerability or public disaster.

Responsibilities

- **Conab:** responsible for issuing public calls at the national level to purchase food directly from farmers or family farming organisations;
- **State and municipal governments:** sign agreements with the federal government or implement complementary actions with their own resources;
- **Beneficiary institutions:** organise the distribution of food to individuals or communities in vulnerable situations; and
- **Family farmers and their collective organisations:** develop sales projects to participate in public tenders. The projects describe farmers' identities, types of products, volume of production and frequency of deliveries, as well as the institutions that will receive the foodstuffs.



Stockpiling

It supports family farming organisations, such as cooperatives and associations, in building and maintaining food stocks, enabling them to better control commercialisation in local and regional markets.

Unlike the PAA's direct purchase modality (explained below), the products remain property of the organisations, allowing them to sell at more opportune times, at better prices and with greater competitiveness.

The government purchases the products in advance and the organisations have up to 12 months to repay the funds either in value (with a monetary correction factor) or in products, when this is in the interest of the public administration.

Responsibilities

- **Conab:** enters contracts at the national level to acquire stocks and establishes conditions for their subsequent sale.
- **Family farmer organisations:** beneficiary cooperatives or associations that develop projects for CONAB, store and market products in accordance with established rules.



Direct Purchase

The PAA direct purchase modality involves the direct acquisition of family farming products by the National Supply Company.

Conab uses the food purchased, which becomes its property, for food and nutrition security initiatives, with distribution through social programmes, as well as for market regulation initiatives and provision of strategic stocks.

Responsibilities

- **Conab:** issues public calls for the purchase of family farming products. It purchases the products directly, which are then stored in its units or in contracted locations, and manages the logistics and destination of the foodstuffs purchased.
- **Family farmer organisations:** cooperatives and associations that participate in public calls by submitting sales proposals and delivering the products purchased to Conab, in accordance with the quality and quantity criteria specified in the calls.



Encouraging milk production and consumption (PAA Milk)

The PAA Milk programme aims to purchase milk from family farmers and distribute it to vulnerable populations, such as children, the elderly and pregnant women, through social protection institutions and social programmes.

Responsibilities

- **State and municipal governments:** Purchase processed milk, usually in partnership with the federal government, and organise its distribution to institutions serving vulnerable populations.
- **Family farmers and their collective organisations:** Guarantee the supply of milk within established quality standards.



Institutional purchases

Public institutions such as universities, hospitals, barracks, prisons and others are required to use at least 30% of their budget to purchase food from family farmers.

This can be achieved through a public call of interest, which simplifies the integration of family farmers into the food market and promotes local development.

Responsibilities

- **Public institutions:** Develop and publish public calls detailing the quantities and specifications of the foodstuffs they require; evaluate and select sales projects submitted by family farmer organisations.
- **Family farmers and their collective organisations:** Develop sales projects and ensure that food is delivered in accordance with the calls.

2

Access to land



Brazil's land policy aims to promote access to land, fight land concentration, regularise land tenure and arbitrate agrarian conflicts. The National Institute for Colonisation and Agrarian Reform is primarily responsible for implementing this policy.

The land issue in Brazil is rooted in the colonial structure, consolidated by the 1850 Land Law, which institutionalised private property and excluded workers from accessing lands. Founded in 1970, Incra initially focused on the occupation of the Amazon and land regularisation in areas of agricultural expansion.

In the 1980s and 1990s, it began to focus on land redistribution and **establishment of rural settlements**. Since the 2000s, Incra has been working on **land regularisation and sustainable development** projects.

What are Incra's activities?

Identification and allocation of land for agrarian reform

Incra conducts surveys to assess the productivity of properties and carries out legal expropriation procedures alongside the judicial system. It also implements rural settlement projects, providing infrastructure and technical support.

Support for the development of rural settlements

After redistributing land, Incra implements policies to ensure that settlers can produce. This includes promoting access to rural credit and technical assistance and building infrastructure such as roads and water supply systems. It also ensures that the social function of the land is respected.

Land regularisation

Incra works to regularise federal public lands that have been occupied irregularly, granting possession or ownership titles to small farmers, traditional communities and quilombolas.

Mediation of agrarian conflicts

Incra participates in the mediation of land conflicts, liaises with public security agencies and encourages dialogue with social movements and rural unions.

3

Rural extension and technical assistance

Technical assistance and rural extension services (ATER) were created to provide technical advice, training and support to improve family farming.

In addition to providing farmers with technical and managerial knowledge that promotes their autonomy, ATER prioritises historically vulnerable populations and improves their access to public policies and markets. ATER also encourages agroecological practices, production of food for self-consumption, and supply to local and regional markets.

History of ATER policy in Brazil

- **1940 Creation of rural extension services**
Agricultural extension services were created in the 1940s, initially aimed at large producers, with the goal of modernising agriculture and increasing productivity, often at the expense of sustainability.
- **post-1988 Changes**
The 1988 Constitution recognised the economic and social importance of family farming, emphasising the need to support it, which led to the expansion of assistance to include sustainable practices and strengthen this sector.
- **2010 ATER Law**
The National ATER Policy was implemented, prioritising support for family farmers, traditional communities and settlers from agrarian reform, and establishing guidelines for participatory, decentralised and inclusive technical assistance and rural extension.
- **2014 Creation of Anater**
The National Agency for Technical Assistance and Rural Extension was created to modernise and integrate ATER services, linking public policies with local rural extension institutions.

National Agency for Technical Assistance and Rural Extension



Created in 2014, Anater is responsible **for coordinating, articulating and promoting the qualification of ATER services in Brazil**, ensuring that family farmers have access to technologies, knowledge and public policies.

Its mandate includes developing national plans for ATER services, inter-institutional coordination, training ATER agents, promoting the transfer of new technologies to family farmers, and monitoring the services provided by ATER organisations.

ATER organisations

ATER entities include public and municipal bodies as well as accredited private organisations that work directly with rural producers. They work with a decentralised operation, providing assistance tailored to local needs, such as technical guidance and training in agricultural practices, management and marketing. They promote intersectoral work, support for cooperatives and coordination with other public policies, while disseminating technological innovations and encouraging practices that respect the environment and improve the sustainability of production.

Cross-sectoral action by ATER entities

One characteristic of ATER organisations that promotes rural development is their integrated approach to different public policies and sectors.

This intersectoral work is evident in areas such as food marketing, rural credit and financing programmes, land titling, recovery of degraded areas, and promotion of participation of women, young people and vulnerable groups.



4

Rural credit: Pronaf

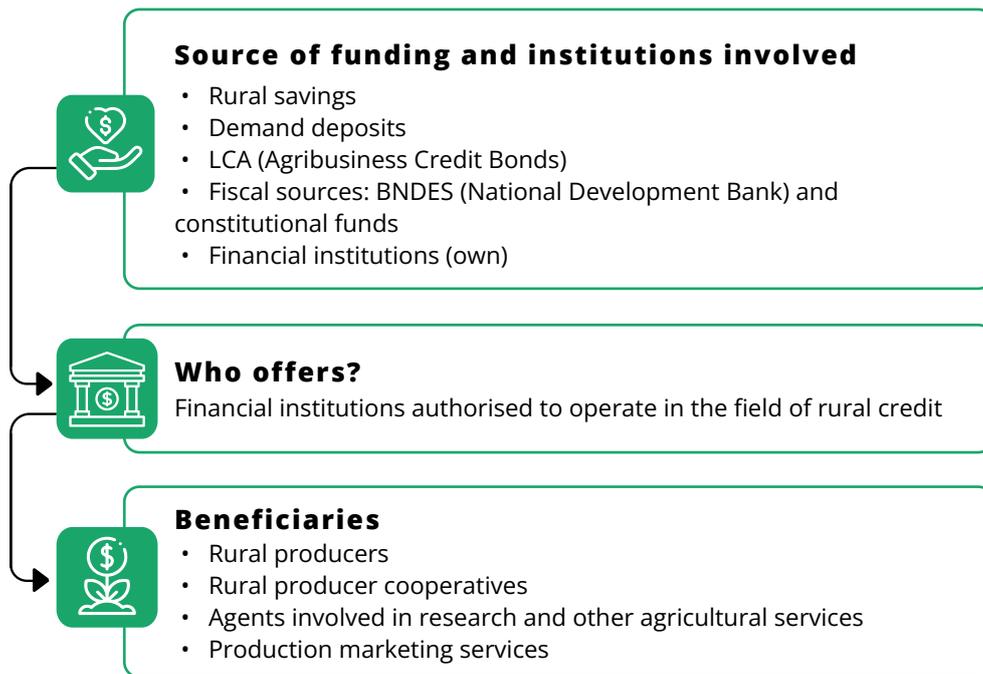
The National Programme for Strengthening Family Agriculture (PRONAF) offers accessible lines of credit for family farmers to **invest in production, modernise their practices, and ensure their economic and social sustainability.**

To access credit, rural producers must submit a technical project developed with the support of local ATER institutions. Once the technical project is ready, they apply to a bank of their choice.

Any credit released requires collateral, usually in the form of pledges, sureties/guarantees or mortgages on rural or urban property. Collateral may consist of property owned by third parties, who must sign the credit instrument as guarantors. Rural credit financial transactions are also subject to interest, taxes, bank charges, and compulsory insurance for the assets offered as collateral for the transaction. Credit lines have fixed rates, may be subsidised by the federal government, and are managed by banks approved by the Central Bank of Brazil.

Rural credit **is used to cover the costs of agricultural production, storage and transport; to enable investment in goods and services, and to industrialise agricultural products** (through cooperatives or small farms). PRONAF also supports agroecological practices, reduces inequalities in rural areas, and facilitates small producers' access to markets. There are different types and conditions of PRONAF credit.

 There are 10 different lines of credit tailored to the different needs of family farmers: purchase of inputs, seeds, fertilisers, machinery and equipment; construction and modernisation of production infrastructure; and specific lines for young people, women and others. More detailed information can be obtained from the institutions involved in this material.



The funds used for rural credit in Brazil come from various sources, both public and private, which guarantee financing for agricultural activities.

The main sources are **mandatory resources**:

- **Demand deposits:** percentage of demand deposits made by commercial banks.
- **Rural savings:** percentage of funds collected through rural savings by authorised banks.
- **Constitutional Financing Funds**, such as those for the North (FNO), North-East (FNE) and Centre-West (FCO), which stimulate agricultural production in these regions.
- **The General Federal Budget for the equalisation of interests.**

In addition, there are **unrestricted funds** collected by the financial institutions themselves (for example, through the issuance of agribusiness credit bonds – LCA).

The institutions involved in rural credit are as follows:

- **The Central Bank of Brazil**, which regulates and supervises rural credit operations.
- **Public and private banks**, which are the operators of PRONAF credit lines.
- **The commercial banks and agents** that offer rural credit in Brazil are Banco do Brasil, Caixa Econômica Federal, credit cooperatives and regional banks such as Banco do Nordeste and Banco da Amazônia.

In addition, local Technical Assistance and Rural Extension institutions help farmers develop the technical projects required to access credit, which are necessary for banks to release credit. The ATER institution is also responsible for issuing the CAF.

Programmes such as PRONAF are important for promoting the financial inclusion of farmers who have always faced banking exclusion. Its model strengthens family farming, guarantees national supply, encourages agroecological practices and expands opportunities, with specific lines for women, young people and traditional populations.



5 Agricultural research

An international reference in technological innovation for tropical agriculture and livestock since 1973, Embrapa has introduced an integrated approach to applied research, aligned with the needs of markets and farmers.

Embrapa has been responsible for advances in biotechnology, irrigation and sustainable management that have made Brazil a world leader in tropical agriculture. It has also created integration systems, resistant crop varieties and highly effective management techniques. Today, Embrapa is focusing on low-carbon agriculture, recovery of degraded pastures, bringing digital technologies to rural areas, and bioeconomy, all of which are challenges for the 21st century.

History of agricultural research in Brazil

- **1910 a 1960 The beginnings of agricultural research**
The first agricultural research initiatives in Brazil were carried out by state institutions and university centres, focusing on specific crops such as coffee and sugar cane. However, these initiatives were isolated and poorly integrated with the productive sector's requirements.
- **1973 The agricultural revolution and creation of Embrapa**
Embrapa was created to unify and centralise agricultural research efforts at the national level, with an emphasis on developing solutions adapted to the Cerrado (the Brazilian savanna) and other challenging regions. In addition, the company introduced an integrated approach to applied research, aligned with needs of the market and farmers.
- **1980 a 2000 Expansion of tropical research**
Advances in biotechnology, irrigation and sustainable management have placed Brazil at the forefront of tropical agriculture worldwide, as well as in the development of integration systems, resistant crop varieties, and highly effective management techniques.
- **2000 - present The era of sustainability and digitalisation**
Current research focuses on low-carbon agriculture, bringing digital technologies to rural areas, and advancing bioeconomy in order to meet 21st century challenges.

Results

Embrapa's areas of activity include genetic improvement of tropical cultivars, such as Cerrado-resistant soybeans and varieties of maize, beans and cotton, as well as research into foods with higher nutritional value, such as biofortified rice.

Its infrastructure includes national research centres specialising in areas such as rice, beans, soybeans, cattle, and digital agriculture. It also has regional centres specialising in research on each biome, such as the Amazon, the Cerrado and the Semi-Arid region. It encourages partnerships with universities, private companies, cooperatives, and international organisations.

Embrapa's research results include development of technologies that meet the needs of family farmers in vulnerable regions such as the semi-arid zone and the Amazon. The institution also played a central role in transforming the previously unproductive Cerrado into one of the world's main agricultural centres, thanks to techniques such as acid soil correction and drought-resistant crop varieties.

It has also reduced the need for chemical inputs by advancing integrated pest management, promoting conservation of natural resources, and has developed sustainable systems such as crop-livestock-forest integration and more drought-resistant varieties.

Areas of expertise



Genetic improvement

Development of cultivars adapted to the tropical climate, such as Cerrado-resistant soybeans and varieties of maize, beans and cotton.



Natural resource management and conservation

Techniques such as no-till farming, integrated pest management and agroforestry systems.



Climate change and low carbon emissions

Solutions to reduce greenhouse gas emissions in agriculture, such as low-carbon systems and restoration of degraded pastures.



Sustainable systems

Crop-livestock-forest integration and intercropping, which combine different production systems to maximise efficiency and sustainability.



Biotechnology and precision agriculture

Use of biotechnological tools to create genetically modified organisms and adoption of digital technologies to monitor the field.



Functional and nutritional foods

Research into foods with higher nutritional value, such as biofortified rice and products with functional properties.

6 Conclusion

Strengthening family farming requires coordinated **public policies** that combine access to land, markets, credit, technical assistance and innovation.

The Brazilian experience shows that a solid institutional framework, combined with specific mechanisms to encourage production and marketing, can have a transformative impact on small farmers and national food security.

This manual, developed under the IBSA Fund project with technical support from the Government of Brazil, aims to assist the efforts of the Government of the Republic of Congo in designing effective agricultural policies tailored to the needs of family farmers.

By identifying technical resources applicable to different contexts, this material reinforces the project and its partners' commitment to knowledge sharing and international cooperation. The implementation of strategies such as institutional procurement for school meals, accessible rural credit and locally-adapted agricultural research is a promising way **to strengthen family farming and ensure a more resilient and sustainable food system in the country.**

7 Bibliography

Anater (2025). Presentation of ANATER. Available at: <https://www.anater.org/index.php/apresentacao/>. Accessed on 10/01/2025

Embrapa (2025). Institutional documents. Available at: <https://www.embrapa.br/documentos-institucionais>. Accessed on 10/01/2025

INCRA (2025). Institutional - INCRA. Available at: <https://www.gov.br/incra/pt-br/acao-a-informacao/institucional/o-incra>. Accessed on 10/01/2025

IBGE (2017). 2017 Agricultural Census. Available at: <https://www.ibge.gov.br/estatisticas/economicas/agricultura-e-pecuaria/21814-2017-censo-agropecuaria.html>. Accessed on 25/02/2025

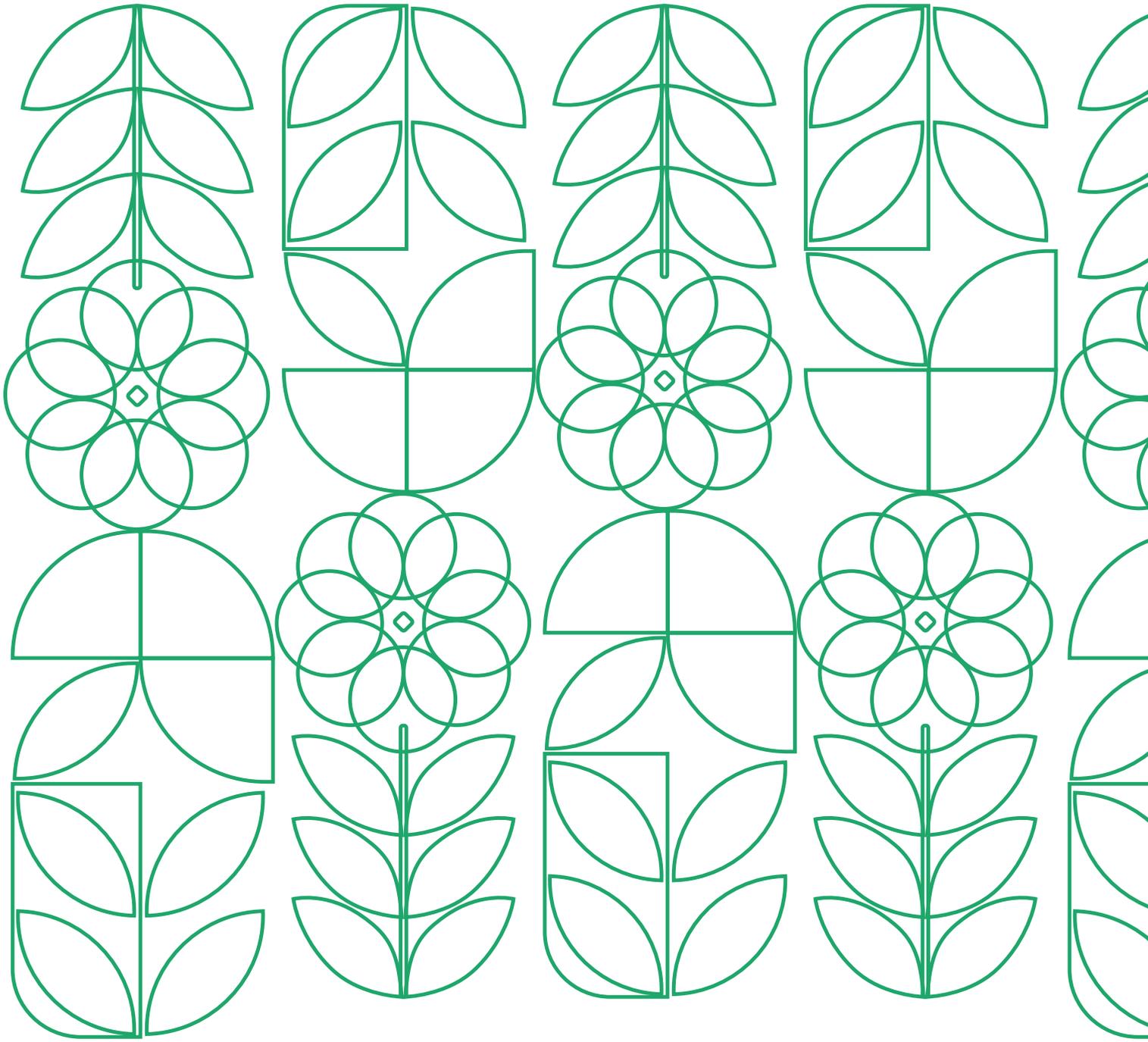
PAA (2018). Food Acquisition Programme. Available at: https://www.mds.gov.br/webarquivos/publicacao/seguranca_alimentar/caderno_PAA.pdf. Accessed on 15/12/2024

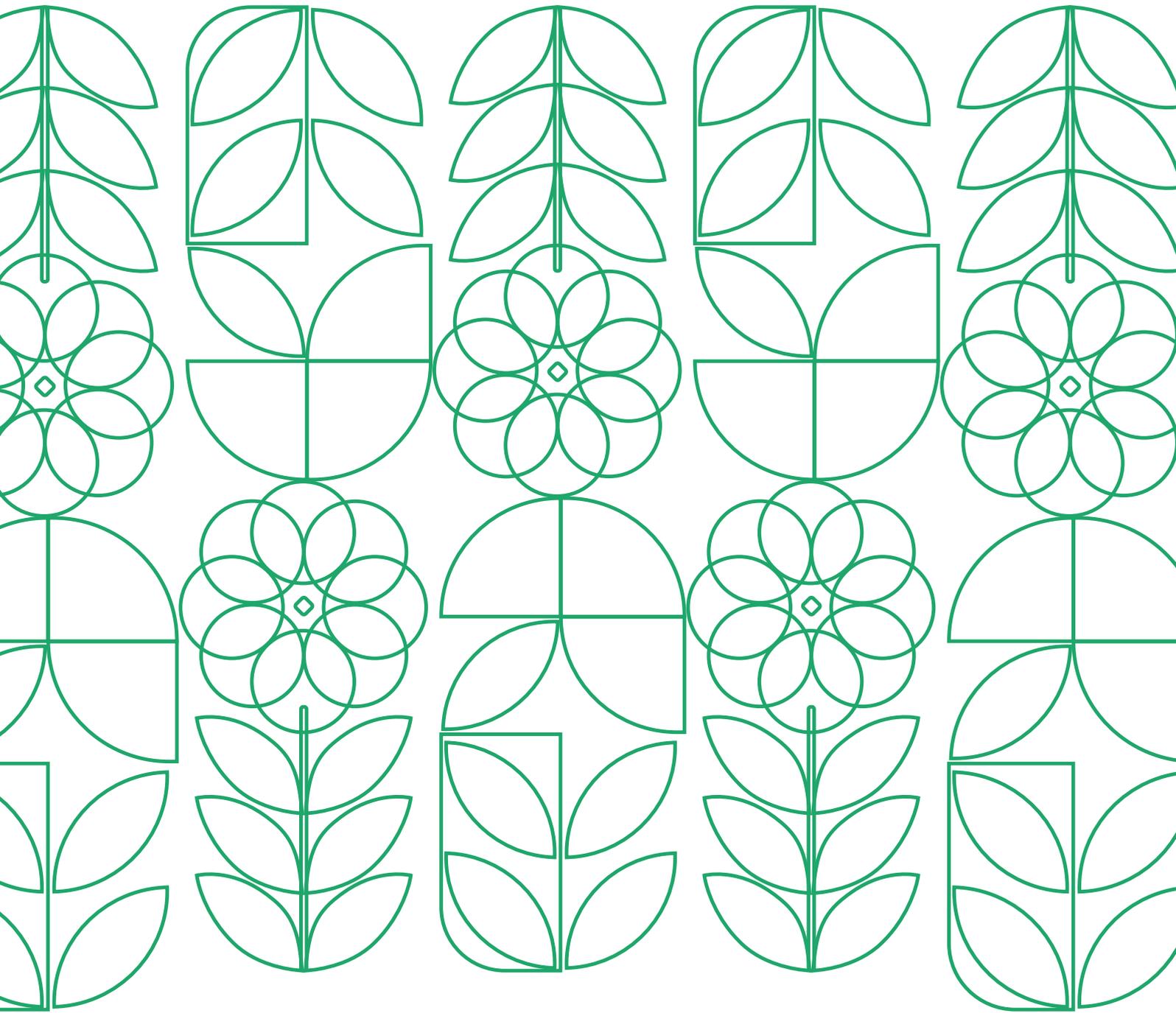
PNAE (2025). National School Feeding Programme. Available at: <https://www.gov.br/fnde/pt-br/acao-a-informacao/acoes-e-programas/programas/pnae#:~:text=O%20Programa%20Nacional%20de%20Alimenta%C3%A7%C3%A3o,filantr%C3%B3picas%20ou%20por%20elas%20mantidas>. Consulté le 10/01/2025

PRONAF (2025). National Programme for Strengthening Family Agriculture. Available at: <https://www.gov.br/mda/pt-br/acao-a-informacao/acoes-e-programas/programas-projetos-acoes-obras-e-atividades/programa-nacional-de-fortalecimento-da-agricultura-familiar-pronaf>. Accessed on 10/01/2025

Safra Plan 2024/2025 (2024). Presentation of the Safra Plan 2024-2025. Available at: <https://www.gov.br/mda/pt-br/noticias/2024/07/food-on-the-table-with-interest-rate-cuts-for-the-production-of-basic-foodstuffs-psaf-reaches-a-record-r-76-billion-in-rural-credit/presentation-of-the-safra-2024-2025-plan.pdf/view>. Accessed on 15/12/2024

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