

SUSTAINABLE FARMING IN BRAZIL

THE CNA-SENAR
SYSTEM AT A
GLANCE



BRAZILIAN CONFEDERATION OF AGRICULTURE AND LIVESTOCK - CNA

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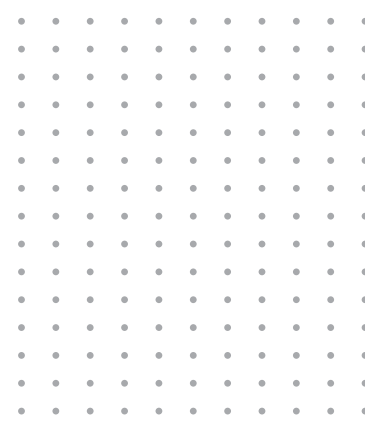


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01

THE CNA-SENAR SYSTEM AT A GLANCE: SEEDING SOLUTIONS TO FARMERS





Education, vocational training, management and technical assistance are some of the main lines of action the **National Rural Learning Service (Senar)** has been delivered to improve the quality of life of more than 70 million farmers and rural workers in Brazil. Founded in 1991, Senar has been making progress to keep pace with challenges and technological revolutions of the 21st century's agriculture.

With regional representations in all 26 states plus the Federal District, Senar connects the agricultural activity with the three aspects of sustainability concept - economic, social and environmental. It provides citizenship and generates income for those living in the countryside. Senar is also engaged to deliver

on the reduction of CO2 and the adaptation of the agribusiness sector to the challenges of climate change, pushing forward Brazil's contributions to the United Nations agenda on environment and sustainability.

Senar counts on more than 6,000 skilled instructors to provide vocational training and courses on over 300 rural occupations - from manual milking to the modern precision agriculture. Whether through e-learning platforms or with boots on the ground, Senar can reach farmers anywhere - either in Brazil or overseas.

The **Brazilian Confederation of Agriculture and Livestock (CNA)** is the main private institution to stand for



the interests of Brazilian farmers both domestically and overseas. In line with Senar's institutional framework, its federations has raised the CNA system flag in all 26 states plus the Federal District, reaching almost every municipality through rural unions.

Over the years, CNA has become the private voice to stand for the farmers – from smallholders to large-scale production, it is in charge of defending agriculture in debates at the Congress,

within Federal Government bodies and agencies, before the Supreme Court as well as in international negotiations.

As another stepping-stone to the CNA mission, the CNA Institute (ICNA) undertakes science-led studies and applied research on technological solutions to increase productivity in the countryside. On the academic arena, CNA School of Technology offers undergraduate and post-graduate courses in both e-learning and on-campus education.

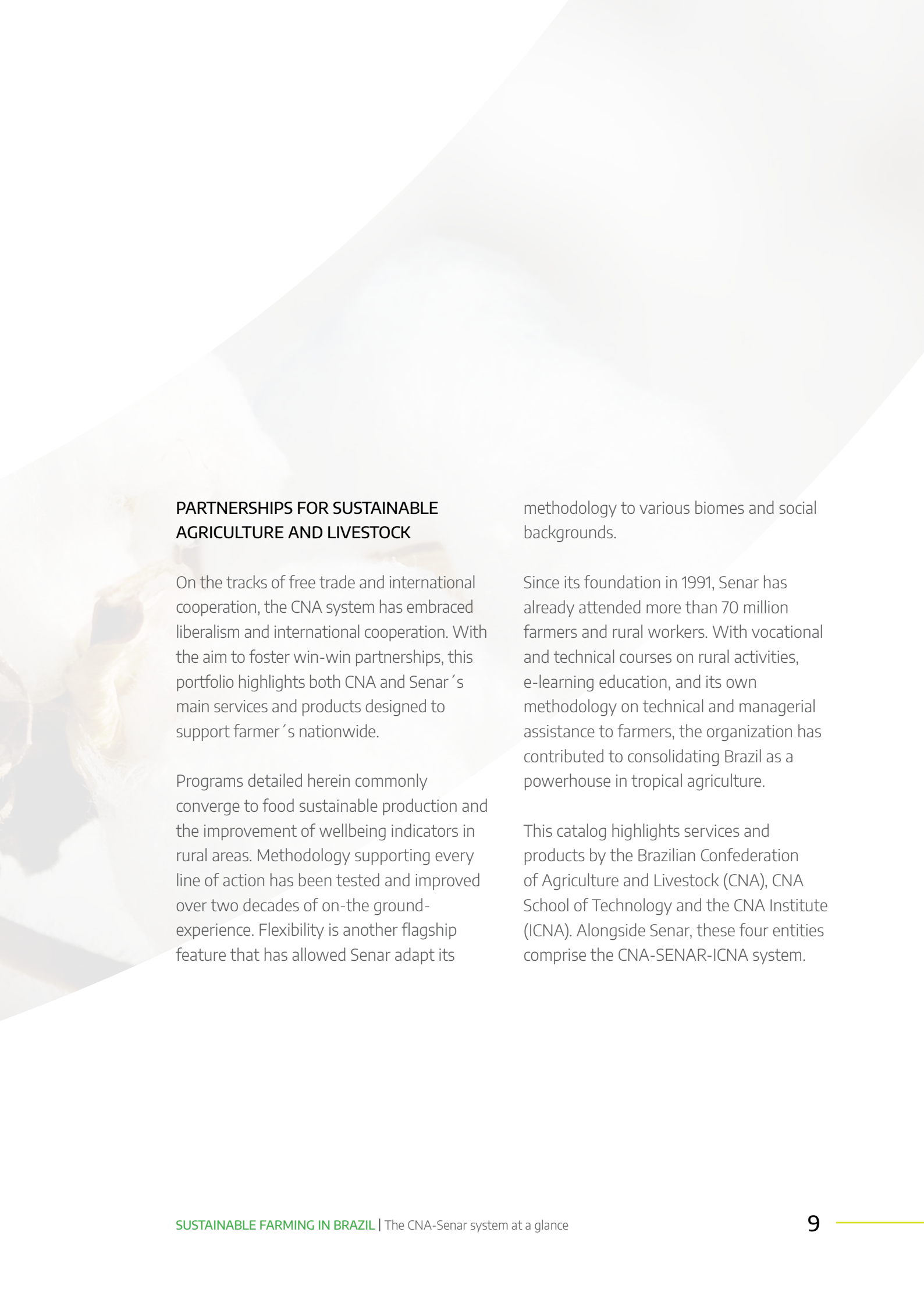




02

INTERNATIONAL
COOPERATION





PARTNERSHIPS FOR SUSTAINABLE AGRICULTURE AND LIVESTOCK

On the tracks of free trade and international cooperation, the CNA system has embraced liberalism and international cooperation. With the aim to foster win-win partnerships, this portfolio highlights both CNA and Senar's main services and products designed to support farmer's nationwide.

Programs detailed herein commonly converge to food sustainable production and the improvement of wellbeing indicators in rural areas. Methodology supporting every line of action has been tested and improved over two decades of on-the ground-experience. Flexibility is another flagship feature that has allowed Senar adapt its

methodology to various biomes and social backgrounds.

Since its foundation in 1991, Senar has already attended more than 70 million farmers and rural workers. With vocational and technical courses on rural activities, e-learning education, and its own methodology on technical and managerial assistance to farmers, the organization has contributed to consolidating Brazil as a powerhouse in tropical agriculture.

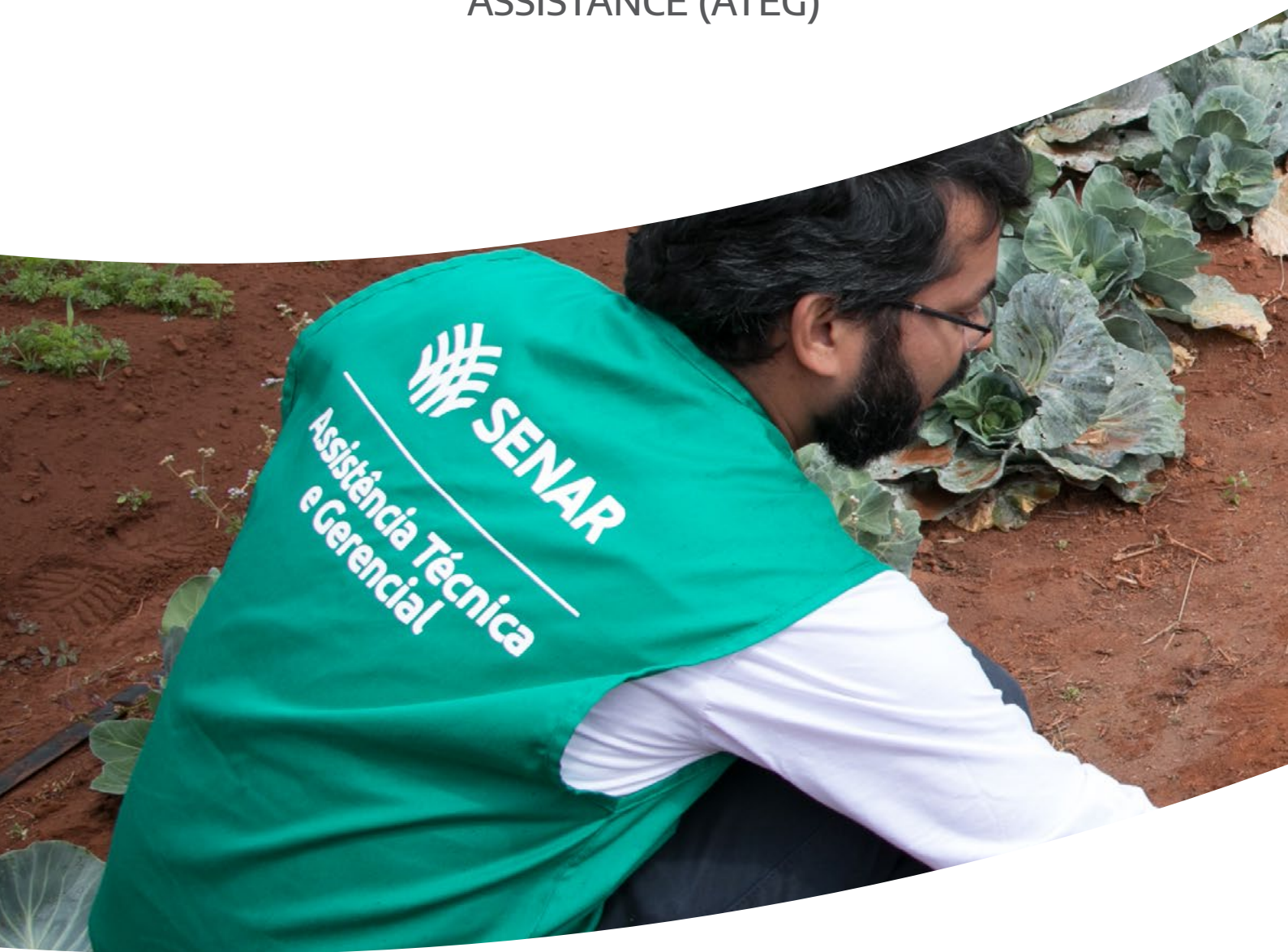
This catalog highlights services and products by the Brazilian Confederation of Agriculture and Livestock (CNA), CNA School of Technology and the CNA Institute (ICNA). Alongside Senar, these four entities comprise the CNA-SENAR-ICNA system.





03

TECHNICAL AND MANAGERIAL ASSISTANCE (ATEG)



PROFITS AND PRESERVATION OF NATURAL RESOURCES IN THE COUNTRYSIDE

Senar's close relationship with the countryside has led to the development of its own **Technical and Management Assistance methodology** – which aims at increasing the production of food with less impact on natural resources and more profitability for the countryside. Counting on the expertise of 3,000 field technicians, this program has attended more than 100,000 farmers in Brazil.

Tailor-made approach is a baseline feature of SENAR's methodology. There is no one-size-fits-all format when it comes



Assistência Técnica e Gerencial

to the farming sector. Field technicians take into account specificities of every single attendee before prescribing recommendations. Briefly, ATeG methodology is composed of five steps:

- Tailor-made productive diagnosis
- Strategic planning
- Technological suitability
- Supplementary vocational training
- Systematic evaluation of outcomes

Over the years, ATeG's packages have also evolved beyond the fences of rural properties to embrace small and medium agribusiness. This rationale has helped farmers add value along the chain of cheeses, honey, cured meats and other family-run business.





Adapting production systems to the effects of climate change and cutting emissions in strategic areas across the six Brazilian biomes are some of main results from ATeG's. In the Cerrado, for instance, Senar has provided recovery of pastures, planted forests and mobilized farmers on the benefits of integrated crop-livestock systems.

Over time, Senar has also counted on partnerships with both federal agencies and multilateral organisations to deploy technical assistance-led programs nationwide: Inter-American Development Bank (IDB), the Government of the United Kingdom, the World Bank, the German Cooperation Agency (GIZ in German), the Brazilian Agricultural Research Corporation (Embrapa) and the Ministry of Agriculture, Livestock and Food Supply (MAPA).

This has been the case of the **Milk MAPA**. Through this cooperation with the Ministry

of Agriculture, Senar has improved milk quality and increased income of more than 3,300 small farmers across six Brazilian States. Daily milk production of participants in the state of Santa Catarina has reached a 20% high as a result of Senar's technical and management assistance.

FROM FARM TO TABLE

Under the project From Farm to Table, Senar has joined efforts with the National Service of Commercial Learning (Senac) to connect farmers of more than 47 types of vegetables and fresh fruits to 13 units of school restaurants, including units at the Chamber of Deputies and the Superior Court of Justice.

The rationale is to raise profits to farmers by excluding intermediaries along the supply chain. On the other hand, it assures food safety, standardization and traceability to consumers.

04

ENVIRONMENTAL SUSTAINABILITY AND BIODIVERSITY



Adapting agriculture to climate changes also takes the promotion of green practices and technologies that reduce impacts on natural resources. This is the case of the direct planting, recovery of degraded pasture, use of biodigesters and the consortium amongst crops, livestock and planted forests.

As a result of a partnership amongst Senar, the Ministry of Agriculture (Mapa) and the World Bank, the Low-Carbon Agriculture project has trained more than 7,800 farmers in sustainable production technologies, covering nearly 1,900 rural properties. Spillovers and indirect results lift figures to more than 15,000 farmers. More than 300,000 hectares of degraded pastures have been recovered in the Cerrado.



ABC Cerrado

SENAR was in charge of executing the ABC project.

BIODIVERSITY AND AGRICULTURAL PRODUCTION IN THE CERRADO

Successful outcomes from the ABC project has led to another collaboration among SENAR, the World Bank and the Brazilian government: **the Integrated Landscape Management of the Cerrado Biome** - a US\$ 21 million worth program funded by the Forest Investment Program.



SENAR will deploy Technical and Management Assistance at 4,200 farms over 5 years, leading 5,200 rural producers to comply with environmental legislation in the Cerrado biome. It stands on a three stepping-stones: i) restoring native rural landscape; ii) improving profits; iii) and disseminating low-carbon technologies.

The **Integrated Landscape Management of the Cerrado Biome** covers 53 micro-watersheds in 12.5 million hectares in 9 states.

RECOVERY OF DEGRADED PASTURES

Its main goal is to enhance agricultural production on the same cropping area. In line with global targets of CO₂ reduction, this program encourages the adoption of low-carbon technologies and the recovery of degraded pastures.

Bringing together efforts from Senar, the Ministry of Agriculture, FAO and Embrapa, the project **Recovery of Degraded Areas in the Amazon (PRADAM)** has benefitted more than 1,600 farmers in the Amazon states of Acre, Amazonas, Mato Grosso, Pará and Rondônia.





Senar has been in charge of deploying qualification and training to agents to disseminate knowledge amongst local producers.

Sustainable Rural is another program aimed at recovering deteriorated areas in both the Amazon and the Atlantic Forest. It has also fostered the **integration among crops, livestock and forest**, the sustainable forest management and no-till farming. This initiative has resulted from a partnership between the Inter-American

Development Bank (IDB) and the Brazilian Ministry of Agriculture.

BIOMES AND PRA VALER PROJECT SCIENCE-LED RESTORATION OF NATIVE FLORA IN FARMING AREAS

CNA has put in place various projects reflecting Brazilian farmer's commitments to sustainable agriculture. With the P.R.A Valer program, CNA will team up with government, private sector and civil society stakeholders to help farmers restore native

flora in line with the Brazil's Forest Code and the National Environmental Registry of Rural Properties. From its ground zero in the Amazon biome, this project runs nationally in order to identify and offer a diversified tool kit of green solutions to farmers lacking economic or technology resources to cope with legal framework.

P·R·A·VALER

REGULARIZAÇÃO AMBIENTAL PRODUTIVA

Solutions deployed to farmers result from a 10-year-long cooperation between CNA and Embrapa that gathered more than 400 scientists under a national research effort to identify the most viable species



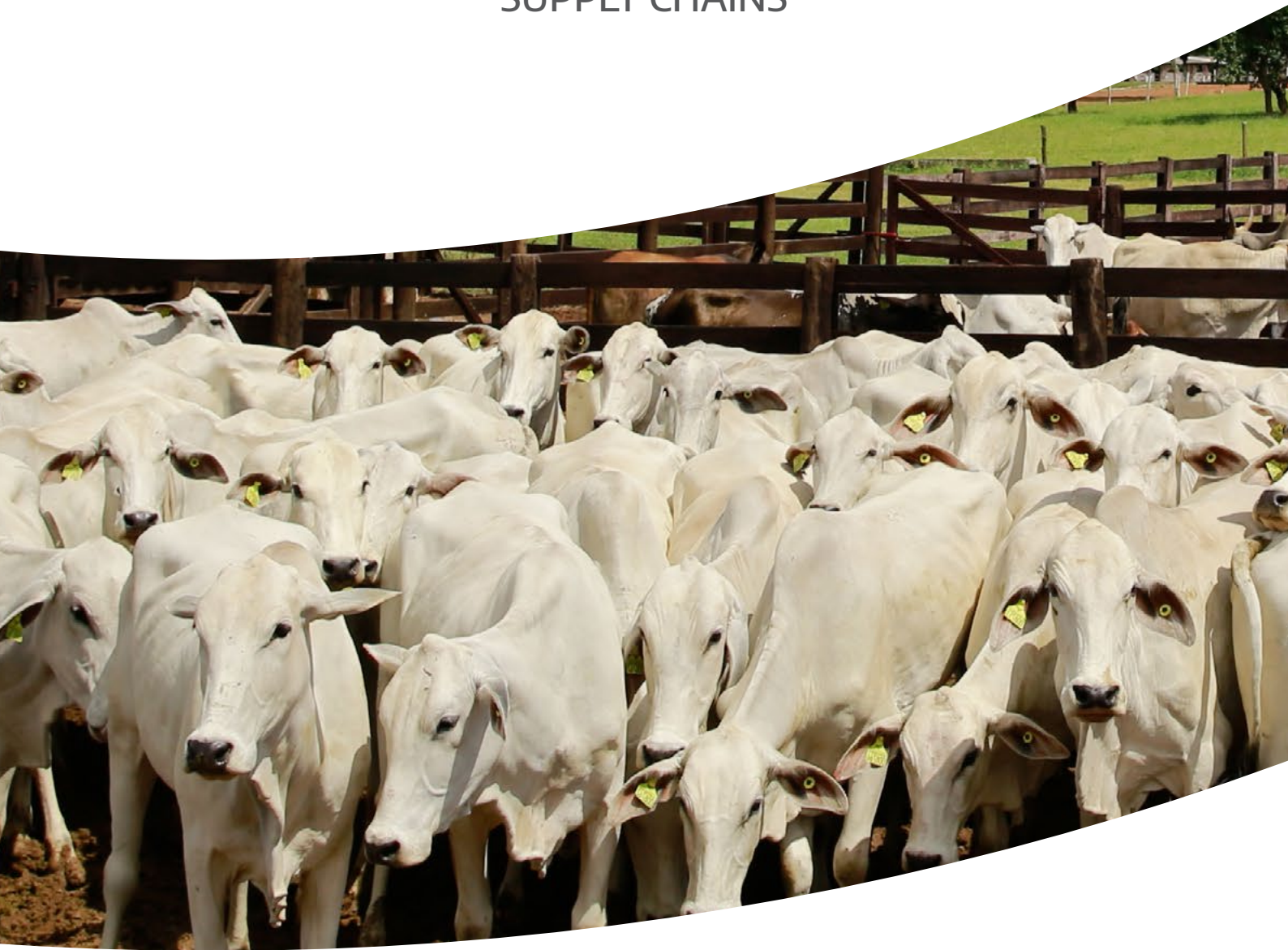



to recompose protected areas within rural properties in the six Brazilian biomes - Cerrado, Pampa, Atlantic Forest, Caatinga, Pantanal wetlands and the Amazon.

Interventions balance profits to farmers and environmental conservation. Research findings on the Aroeira specie, for instance, have skyrocketed outcomes of pink pepper from 1.5 kg to 20 kg per plant in the Atlantic Forest – a coastal biome. Identifying forage crops and other species able to endure semi-arid conditions was another landmark result that has enhanced climate resilience of crops run by small-scale farmers.

05

TRACEABILITY IN FOOD SUPPLY CHAINS





FOOD SAFETY FROM FARMS TO SUPERMARKET SHELVES

In partnership with various private sector stakeholders and federal government, CNA Institute has put in place the traceability program Agritrace. Its main target is to guarantee quality and food safety for meat and vegetable products destined to both domestic and overseas markets.

It benefits consumers with accurate information - such as the quality of meat or the control of agrochemical residues - as well as takes transparency and coordination

to higher grounds throughout the various stakeholders within the entire supply chain.

From the farmer's perspective, Agritrace paves the way for both value add-ons with product differentiation and further investment in genetics and sanitary management under the guidance of national and international regulations.

Connecting ends between farms and final consumers, accredited agroindustry can also increase profits by delivering certified food to wholesalers and retailers.



Transparency and accurate information throughout the value chain also reduces the audit time of public bodies. At a click with a mobile's camera on a label's QR code, consumers immediately access detailed data on the production process, farm location and the farmer himself.

For vegetable crops, Agritrac performs the traceability of citrus, apple, grape and tomato, and other products.

Agritrac has already certified more than 700,000 carcasses of nine different breeds of cattle in Brazil. More than 7,000 farmers have joined this protocol.






06

VOCATIONAL EDUCATION





IMPROVING THE EFFICIENCY FROM THE FARM TO THE AGRO-INDUSTRY

How to make an electric fence or herd cattle properly. What about adopting integrated management of pests, trim a horse hoove or apply agricultural fertilizers. Doubts on how to milk a cow by hand or machine? Thinking of storing rainwater and improving levels of nutrients in the soil? These are just examples of situations for which SENAR provides solutions through professional courses.

Senar delivers courses on more than **300 field occupations** in the areas of agriculture, livestock, forestry, extractive

activities, aquaculture, services, agribusiness and agroforestry activities.

There are nearly 6,000 instructors trained on the SENAR educational methodology. This network of instructors take the vocational training throughout Brazil - from small coffee growers in mountain areas of state of Minas Gerais to cattle ranchers in the Brazilian Northeast region.

Over the years, SENAR has trained millions of farmers and rural workers nationwide. Courses can be **translated and formatted to e-learning platforms**.

WOMEN ON FARMS PROJECT

FEMALE LEADERSHIP FLOURISHING IN
THE RURAL ENVIRONMENT



Mulheres em Campo

Promoting gender equality is vital to the welfare of rural families. Women have been taking leadership roles on farm-related functions. According to the Food and Agriculture Organization of the United Nations (FAO), they account for approximately 43% of the rural workforce worldwide.

This program Women on Farm has been specifically designed to meet the female public demands. It is conducted by women - and for women. On a broad perspective, it develops entrepreneurship and management skills to empower women on rural business.

Women farmers learn, for instance, how to plan their businesses, calculate their production costs or interpret agri-related economic indicators. Each course has five 8-hour sessions.

It has already trained more than 8,000 women since its debut back in 2017.

PROFITABLE RURAL BUSINESS

BRINGING SMALL FARMERS TO
COMMERCIALIZATION CHANNELS



Senar also delivers 46-hour training courses on planning and management of farming activities as to capacitate farmers to prepare their own business plan. Its hybrid methodology balances classroom hours, e-learning and technical visits of Senar experts to the farms of enrolled attendees.

It has already benefited more than 84,000 mid-sized and small-scale producers since 2009. Likewise, e-learning modules have reached more than 12,000 students from North to South of Brazil.





Senar has designed this program in partnership with the Brazilian Micro and Small Business Support Service (Sebrae).

CNA YOUTH

SEEDS OF THE NEW GENERATIONS IN AGRICULTURE



CNA Jovem

The latest wave of urbanization has brought challenges to rural enterprises to succeed in different parts of the world. According to the United Nations, more than 3 billion people are due to swap the countryside to major cities by 2050. This is the context in which the entity has launched CNA Youth program back in 2014.

By promoting interest and stimulating new ideas from new generations to the farming sector, it sows the seeds of the future leaders to keep the sector's representative flag flying up high in future.

CNA Youth takes place annually and drafts young candidates nationwide. Contesters turn in out-of-the box proposals to tackle the main challenges of the agribusiness sector in Brazil. Authors of the best projects are awarded with support to put their ideas into practice - in addition to training and visits to innovative companies in the sector.

All contesters and their proposals join the Young Leaders network – a portfolio of new frontline talents in the agribusiness sector.

07

SOCIAL PROMOTION



HUMAN-BEING WELLNESS IN AGRICULTURE

Senar also offers services to improve the welfare of farmers and rural workers. Literacy, health, citizenship, social inclusion and artisanal food production are examples of themes comprising its portfolio of social actions to rural communities.

Due to its overarching network, Senar is able to reach out locations in need of public policies support. Over the years, it has attended more than 290,000 people with social actions, including farmers and rural workers.

MEN AND WOMEN'S HEALTH AT FARMS

PREVENTION OF DISEASES IN RURAL AREAS



Saúde Preventiva

Senar instructors also promote well-being in rural areas through vaccination campaigns and exams. In close partnership with state and municipal health and education authorities, they disseminate information on disease prevention to farmers and rural workers.

The program **Men's Health** has already conducted more than 46,000 tests and lectures with health specialists for 25,000 farmers. Prevention of prostate cancer is one of the top-the agenda themes.

As to the female population, **Women's Health** promotes early diagnosis and prevention campaigns on cervical and breast cancer as well as sexually transmitted diseases. Senar has undertaken more than 19,000 free Pap tests over the last few years. It has delivered lectures on gender equality, mental health and domestic violence to more than 20,000 women.





08

EDUCATION



FROM TECHNICAL COURSES TO ACADEMIC KNOWLEDGE

Investments in e-learning education technology have allowed Senar lecturers and instructors to reach out every corner of the world - from undergraduate students in Brasília to small-scale farmers in the African Savannah. Its ultimate goal is to attend different schooling levels - from short-term technical courses on everyday rural activities to graduate and extension courses.

E-LEARNING, TECHNICAL CERTIFICATIONS AND CENTERS OF EXCELLENCE

Precision agriculture, environmental sustainability, technological training, risk management, digital inclusion, wellness in rural areas, management, entrepreneurship and agriculture. Out of these 9 programs

derive more than 60 online courses developed to improve the daily routine of rural activities.

Over 600,000 students have already registered at Senar e-learning platform. Courses are free of charges and available at: <http://ead.senar.org.br/>. Monitors facilitate the learning process.

For those seeking **technical certification**, Senar's partnership with the Ministry of Education offers technical courses in Agribusiness (1,230 hours). In addition to online content, Senar has 137 centers for on-site education across the country.

Senar has also expanded its education network with **Centers of Excellence** in regions with the respective productive vocations in order to maximize outcomes by gathering teaching and practice in the same place.



Surrounded by the most extensive belt of irrigated fruit crops in Brazil, the city of Juazeiro, in the state of Bahia, hosts the **Centre of Excellence in Fruit Farming** whereas the city of Campo Grande, in the state of Mato Grosso do Sul, is home to the Centre of Excellence in Livestock Breeding.

Both centers offer intermediate and advanced vocational training courses in technology, as well as **Initial and Continuing Education (FIC)**. All modules are also available online.

CNA SCHOOL OF TECHNOLOGY

Equipped with a modern studio to record video classes, CNA School offers e-learning degrees in Agribusiness Management, Managerial Processes, Environmental Management and Human Resources Management as well as on-site graduation in Agribusiness Management.

It is the only Brazilian college associated with the national system of farmer's unions.

Blending theory and on-the-field practice, students can also exchange knowledge with professionals from CNA, Senar, agricultural federations and farmer's unions nationwide.

CNA College holds several international and domestic titles endorsing the excellence of its education and applied- research on agribusiness.





09

INTERNATIONAL TRADE





Realização:



Parceria:



AGRO. BR - SCALING UP SMALL BUSINESS AND BUILDING COMMERCIAL BRIDGES OVERSEAS

The CNA system and the Brazilian Trade and Investment Promotion Agency (Apex-Brasil) have joined efforts to mobilize, capacitate and integrate small and mid-sized rural entrepreneurs to international markets. The focus of the ongoing Agro-Br project is to organize small suppliers to

scale up volume and diversify exports and destinations.

Foundations of this internationalization program date back to 2016 when CNA launched InterAgro – a network of export-oriented workshops that has mobilized more than 600 small and medium-sized farmers for the opportunities - and challenges - of international trade.

Over the years, InterAgro has laid the first stepping-stones to Agro.Br by mapping out potential sectors and suppliers to either start or increase sales abroad of coffee, dairy products, honey, aquaculture, fruit, flowers and vegetables.

In 2020, Agro.Br took another step forward with ribbon-cutting ceremonies of offices in the Brazilian states of São Paulo, Minas Gerais, Rio Grande do Sul and Bahia – farming powerhouses of the agricultural chains in the Agro-Br exporting portfolio.



As to make ends meet with importers overseas, CNA and Apex-Brasil have also inaugurated an office in Shanghai as to scan business opportunities right in the heart of Asia's booming middle-class-led demand for food and beverages.

AGROBRAZIL

Promoting the image of the Brazilian agriculture is another milestone activity converging to CNA efforts overseas. On the tracks of its marketing-led programs, AgroBrazil has provided an on-the-field experience for foreigner diplomats to have a say with Brazilian farmers in their own rural properties. Representative from more than 30 countries have embarked in this boots-on-ground journey since AgroBrazil's debut in 2017. Annual editions have covered various Brazilian States and more than 25 different



EXCHANGE
**AGRO
BRAZIL**
THE AGRICULTURE
YOU WANT

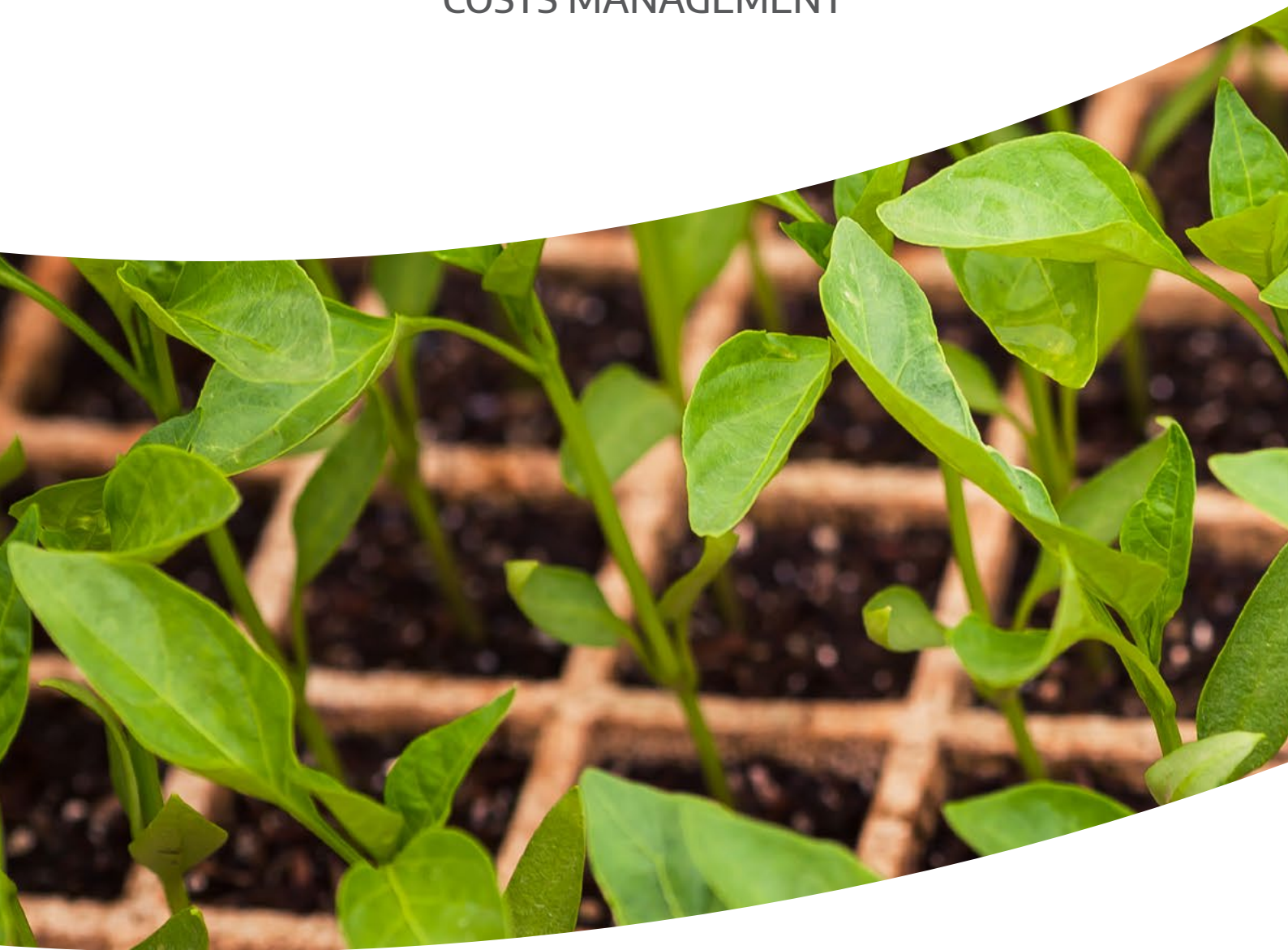
agribusiness sectors – from high-tech irrigated fruit field in Bahia to world-class wineries in the South state of Rio Grande do Sul.

Attendees have the opportunity to witness some of the main drivers that have turned Brazil onto a global food-supply powerhouse such as investments in cutting-edge technology, animal welfare, management techniques and environmental sustainability.



10

EFFICIENCY ON PRODUCTION
COSTS MANAGEMENT





Campo Futuro

FUTURE FARM PROGRAM

The goal of the Future Farm Program is to enable producers in managing risks related to the rural activity – from planting the first seeds to hedging crops prices from the instability of international markets.

It is also adaptable to any production model and agricultural segment. Grains, beef cattle, milk, coffee, fruits and aquaculture are some examples of Brazilian sectors that provide this service annually.

Through technical meetings with key private agents, CNA team prospects information that leads to economic coefficients on agricultural activities.



The methodology leads to the development of five actions - panels with producers and local experts; development of indicators; creation of an information system; technical publications; and a national seminar.

Outcomes are presented directly to rural producers. In this second step, participants are able to compare their local production costs to those in other regions. Farmers

also learn how to manage risk management tools - such as futures contracts and rural insurance.

The benefits of the Future Farm are not limited to helping farmers in taking decisions on trade. In addition to revealing the ideal amount of fertilizer or the right time to sell crops, the information can also support public agents in drafting agricultural policies.



11

AgroUp





KEEPING PACE WITH CUTTING-EDGE TECHNOLOGY IN AGRICULTURE

CNA system also leads the Brazilian Network for Innovation in Agriculture. Constituted by various stakeholders

capable of mapping out the challenges holding back producers to the next technological leap, it gathers state-of-the art technology, analytical intelligence and entrepreneurship to provide on-the-ground to solutions at the farm level.











For further information on the CNA-Senar System, you can find us at **international@cna.org.br** or through the landlines.

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