



RESULTS AND LESSONS LEARNED
ABOUT THE RESPONSIBLE SOYBEAN
PRODUCTION IN BRAZIL AND PARAGUAY:
A LANDSCAPE APPROACH

SFTF3

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MASTHEAD

IMPLEMENTING PARTNERS

Development

Cintia Cavalcanti
Joyce Brandão

Graphic Design and Layout

Mari Guimarães

Editing

Joyce Brandão / Solidaridad
Nienke Sleurink / IDH
Mariana Pereira / Solidaridad
Fatima Cardoso / Solidaridad
Cilene Marcondes / Solidaridad

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INTRODUCTION

This report is the result of the development of the third phase of the Soy Fast Track Fund Program (SFTF). It aims to bring the main results and lessons learned during the development and execution of a set of integrated environmental, social and productive interventions carried out by seven projects that sought to contribute to the establishment of more sustainable soybean origination areas in the Brazilian states of Mato Grosso (MT) and Bahia (BA) and in the eastern region of Paraguay.

To address multifaceted problems, especially deforestation, we aimed at giving materiality to the concept of Sustainable Landscapes through these projects when considering the complexity of the factors involved in the territorial development of the regions and towns in which this productive chain is established.



SOY AND LIVESTOCK FARM IN
THE TOWN OF ÁGUA BOA (MT).
PHOTO: CINTIA CAVALCANTI

SOY FAST TRACK FUND: BROADENING THE ADOPTION OF GOOD PRACTICES IN THE SOYBEAN PRODUCTION CHAIN

Soy currently occupies the fourth position in the ranking of the most produced and consumed grain in the world. The continuous and remarkable growth of its production chain is associated with the structuring of a stable international market, its consolidation as a vital source of vegetable protein – both for human and animal consumption – and the development of technologies that boosted its productive expansion. This process has been accompanied by impacts on its business environment, gradually incorporating issues such as conserving native forests, guaranteeing land rights, using good agricultural practices, social inclusion, and occupational safety into the agendas of actors in the productive chain, civil society, and governments. More and more, global companies are being encouraged to demonstrate how they interact with the territory where they operate, the origin of their products, and the way they are produced. At the same time, initiatives to improve sustainability within the soybean production chain have been carried out by pioneering actors, aware that responsible production and management result in more reliable companies and productive systems.

In 2006, actors in this productive chain, along with non-governmental organizations, including Solidaridad, founded an association called the Round Table Responsible Soy (RTRS), with the aim of formulating environmental, social and productive processes for responsible soybean cultivation, which comprise the RTRS certification standard.

To contribute to the adoption of these criteria for continuous improvement in property management, in 2011, Solidaridad and the IDH started collaborating to implement the Soy Fast Track Fund program. The purpose of

this fund was to bring sustainability into the global soybean chain and provide support to rural producers in continuous improvement and certification of their practices.

In its first four years of operation, the SFTF financed 37 projects, stimulating the production and trade of responsibly produced soybeans. Working to improve environmental, social and productive practices in rural properties in Brazil, Argentina and Paraguay, the fund has encouraged producers, processors and markets to increase responsible soybean volumes, reducing negative environmental and social impacts on the development of their cultivation, increasing legal compliance in rural properties and enhancing their productive benefits in the territory.

During this period, Solidaridad acted in the management of the SFTF, identifying partners and supporting and monitoring the projects. Together, the IDH and Solidaridad have developed a fruitful partnership in defining and implementing the SFTF strategy and the dialogue and learning with partners in the productive sector in Latin America and the European market.

The results and lessons learned accumulated during phases I and II enabled the design of a new phase and proposal of approach. Considering the needs of the soybean production chain as well as global trends, in its third phase (SFTF III), the fund adapted its strategy, expanding its focus from the rural property to the landscape scale. Thus, the SFTF III aimed to create and test an integrated landscape approach based on environmental, social and productive indicators for the development and improvement of tools that contribute to the support of more sustainable soybean origination areas.

“We realized that in order to have a greater impact on issues that depend on an action that is not only within and under the responsibility of the farm, but also of public and private sector policies, we needed to act outside it, involving other actors that relate to this economic activity within the region.” **Fatima Cardoso, general manager of Solidaridad in Brazil.**



GRAIN PRODUCTION AREA IN QUERÊNCIA/MT. PHOTO: IPAM

SFTF I RTRS CERTIFICATION (2011 TO 2013)	SFTF II SOCIOENVIRONMENTAL ADEQUACY (2013 TO 2015)	SFTF III SUSTAINABLE LANDSCAPES (2015 TO 2017)
It encouraged producers to adopt the RTRS certification, increasing the number of certified properties, and fostered suppliers’ demand for certified soy.	It expanded the number of producers who joined the certification process, increasing the adoption of best practices, and supported environmental, social, health and safety adequacy in properties to comply with legislation.	It developed a landscape-level intervention strategy that considers the complexity of environmental, social and economic sustainability in the soybean origination areas.

SUSTAINABLE LANDSCAPES: LOOKING FOR INTEGRATED SOLUTIONS FOR THE TERRITORY

Considering that most regional problems - such as deforestation and social and productive exclusion - do not come from an exclusive factor, Solidaridad, the IDH and implementing partners prospected for projects that proposed a territorial approach contemplating aspects such as responsible soy production, socioenvironmental adequacy of rural properties and environmental governance, and had goals for the territorial development of soy-producing towns or regions.

A collective construction process was established between the HDI, Solidaridad and the implementing

partners to define the practices that should be contemplated in a dynamic approach to **Sustainable Landscapes** and to create a monitoring and evaluation structure for the SFTF III. The process was carried out in two workshops. In both moments, face-to-face contact was fundamental to align the understanding about what is expected of a Sustainable Landscape in soybean producing areas and to exchange experiences and challenges faced by all organizations in the implementation of projects.

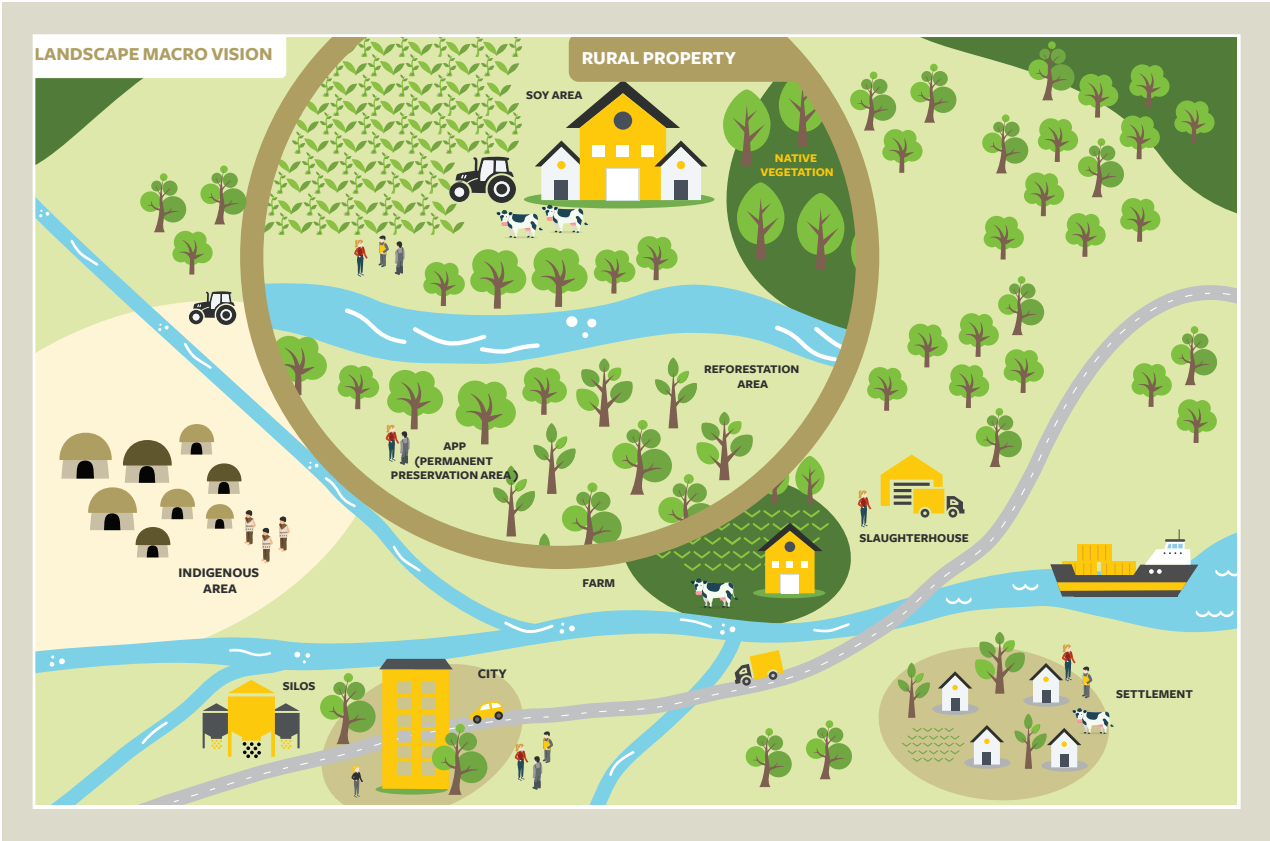
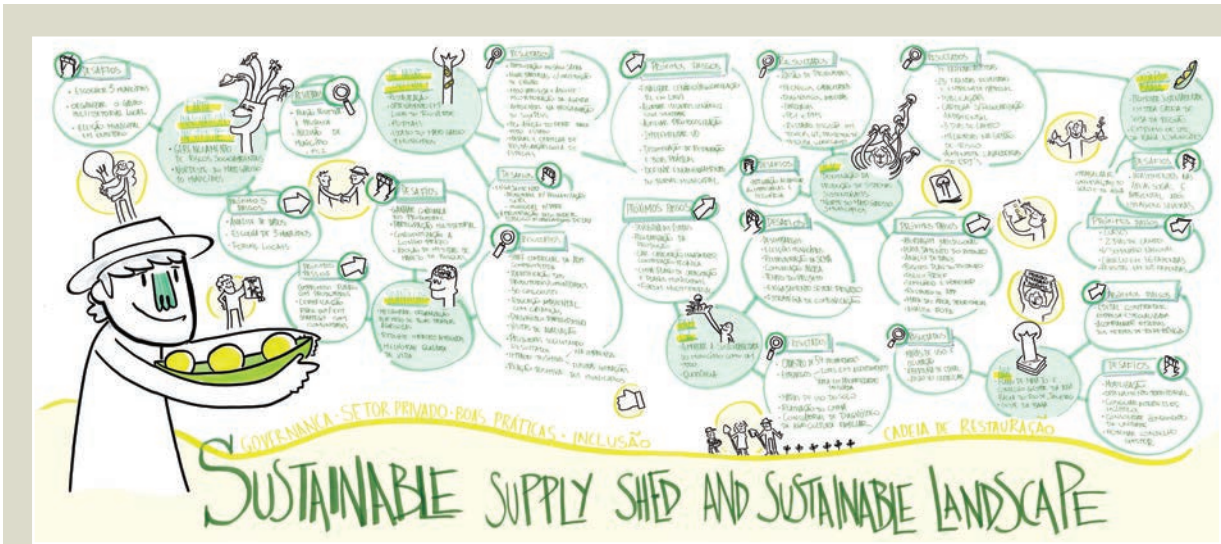


ILLUSTRATION OF THE INTERVENTION MODEL
IN SUSTAINABLE LANDSCAPES
SOURCE: SOLIDARIDAD



Source: Solidaridad. Graphic product of the 1st SFTF III workshop, 2015

In the first workshop, the priority practices for the landscape approach in the different territories were

defined in five crosscutting areas:

CONTINUOUS IMPROVEMENT		LOCAL ENVIRONMENTAL GOVERNANCE	
Involves the use of productive, social, environmental and economic indicators so that, starting from a baseline, it is possible to monitor the performance of producers on their properties. On the other hand, it provides technical support and guidance by trained professionals for permanent improvement in the properties and, consequently, in the rural landscape.		It is established through the mobilization, articulation, and cooperation between different social actors and institutional arrangements present in the landscape. It acts as a tool for public policy support and monitoring and shared search for land use solutions, contributing to reduce risks and impacts on natural resources, to seek new investments and to make the territory more inclusive.	
EFFICIENT USE OF SOIL	DEVELOPMENT OF THE PRODUCTIVE CHAIN AND ACCESS TO MARKETS	SOCIAL INCLUSION	
It covers practices for production optimization, such as intensification and integration of crop and livestock production systems, as well as the diversification of local production to avoid further deforestation. In addition, it includes territorial planning for an ecologically efficient allocation of agricultural expansion and maintenance of native vegetation, considering the forest fragments and their interconnectivity in the elaboration of scenarios for forest restoration and environmental compensation.	Private sector investments on a regional scale can support improvements in the landscape, helping to increase the socioenvironmental and productive performance of the soybean producers and origination areas. The establishment of systems to monitor this performance and the risk analysis of these territories can increase transparency, allowing access to new markets, financing, and public policies.	It must be part of all the other practices, considering all the social actors present in the territory. Therefore, productive chains need to become inclusive, allowing the coexistence of agricultural systems from large to small scale. It should be a requirement for governance group incentives, for them to become comprehensive and representative, allowing the sharing of perspectives on the risks and benefits of developing productive chains in the territories.	

Source: Brazilian Forestry Service, Ministry of Environment, February 2017

The next step was to define a common monitoring and evaluation framework for phase III of the program, which resulted in identifying key indicators distributed across three action axes:

- Changes in Business Practices
- Improving Landscape Governance
- Improving Rural Sustainability

SOY IN THE TERRITORIES COVERED BY SFTF III PROJECTS

The projects were designed according to the needs, challenges, and opportunities of the different territories involved. They carried out articulated interventions to implement good productive, environmental, social and economic practices for a sustainable landscape.

NORTH AND NORTHEAST OF MATO GROSSO

The state of Mato Grosso is the largest soybean producer in Brazil, covering about 28% of the cultivated area in the country (Conab, 2017). In just two decades, the area destined to the production of the grain in Mato Grosso has grown almost sixfold, from 1.5 million to 9.3 million hectares (USDA, 2017). This expansion process over the years has been followed by high rates of deforestation, leading to the concentration of productive areas in the North and Northeast, especially along highways such as BR-163 and BR-158, where today some areas are already consolidated, and some are in an intense conversion process.

Between 2004 and 2010, the annual deforestation rate in the state declined dramatically, from 11,814 km2/year to 871 km2/year (PRODES / INPE), due to stronger command and control interventions and market oscillations. However, between 2010 and 2015, this rate increased by approximately 84%, from 871 km2/year to 1601 km2/year (PRODES / INPE), respectively.

After an accurate selection process, the fund financed six projects in Brazil and one in Paraguay to contemplate key soybean origination areas in consolidated and growing stages, considered at the same time risk-prone areas, where socioenvironmental problems are still present.

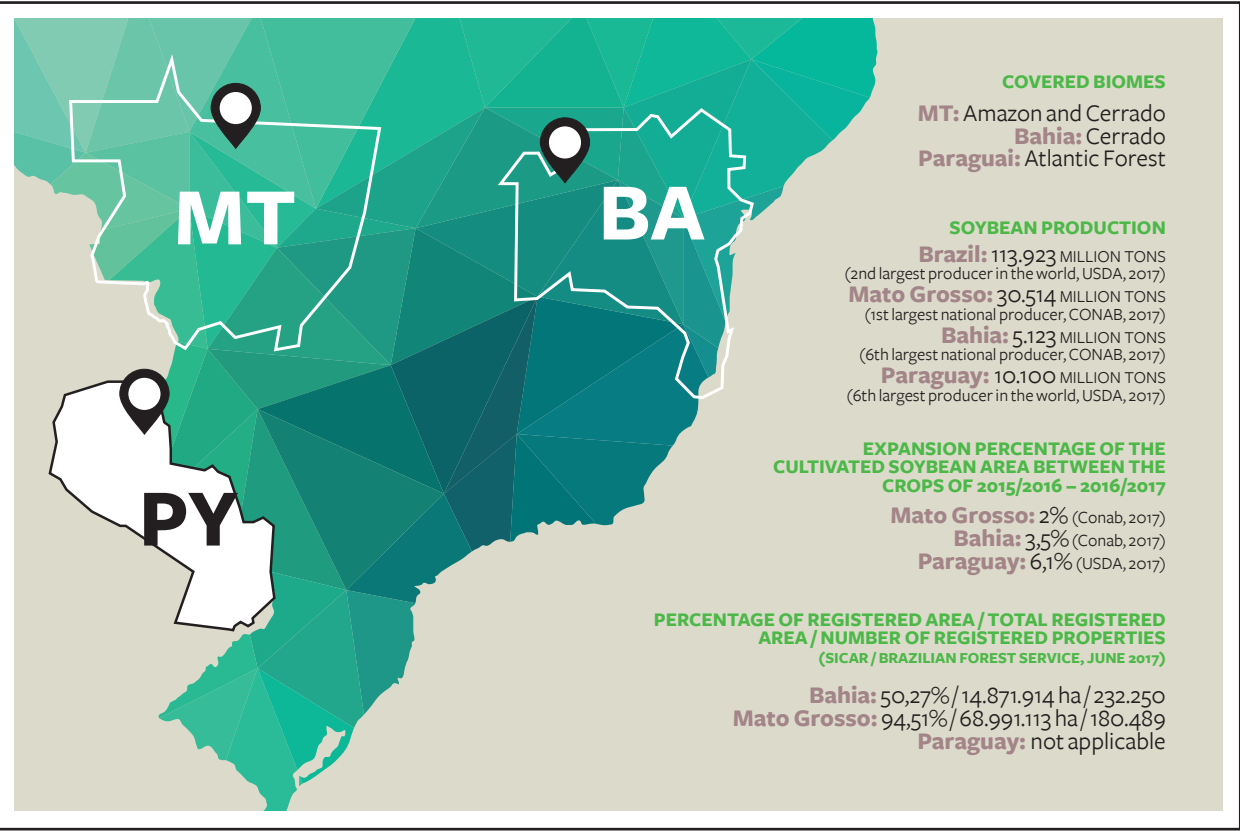
Between 2014 and 2015, the government of Mato Grosso, through its state and municipal departments, worked with civil society organizations, private companies and representative entities of sectors of the state economy to launch two initiatives aiming to contribute to sustainable development: the Sustainable Towns Program (PMS) (box 1) and the Produce, Preserve and Include (PCI) (box 2) strategy.

Box 1 MATO GROSSO SUSTAINABLE TOWNS PROGRAM

It seeks to promote the sustainable development of towns in Mato Grosso by strengthening the local economy, improving municipal public governance, promoting legal security, conserving natural resources, restoring the environment and reducing social inequalities.

Box 2 PRODUCE, PRESERVE AND INCLUDE STRATEGY

It aims to raise funds to expand agricultural and forestry production and increase their efficiency, conserve the native vegetation that remains, recompose environmental liabilities and increase the socioeconomic inclusion of family agriculture, as well as to reduce carbon emissions and sequestration by controlling deforestation and developing a low carbon economy.



In this context, several proposed actions and indicators used by SFTF III projects in Mato Grosso presented synergy with the performance of both state initiatives, contributing directly to the definition, dissemination, and implementation of their goals.

WEST OF BAHIA

The state of Bahia is the 6th largest producer of soybeans in Brazil, covering 4.66% of the area cultivated in the national territory. In the last two decades, its planted area increased from 628 thousand to 1.58 million hectares (Conab, 2017). In the 2016/2017 harvest, Bahia registered an increase of 3.5% in planted area and 54.3% in productivity, while in Brazil, the recorded rates increased by 1.9% and 17.1%, respectively (Conab, 2017).

Its productive area is concentrated in the western region, responsible for 88.22% of the soybean produced in the state and for the production of 4.52 million tons, which

corresponds to 4% of the amount produced in the country. This region has two distinct land use profiles: family farming and business agriculture. In the region of the Rio Grande Valley, with varied topography, subsistence agriculture predominates, in which the most traditional items are cassava, maize, rice, beans, and livestock. On the other hand, business agriculture has developed in the area covered by the cerrado, the second largest Brazilian biome, which currently concentrates the largest stock of agricultural land in the country. Easy mechanization due to flat terrain and the development of new technologies have led to a rapid change of land use within this biome in the last two decades, caused mainly by the expansion of cultivation of soybeans, maize and cotton over pasture and other crops and also over native vegetation.

Between 2000 and 2014, deforestation in the cerrado occurred mainly in the Matopiba region (confluence of the states of Maranhão, Tocantins, Piauí, and Bahia), responsible for the deforestation of 2.08 million hectares. In the

same period, the area occupied by soybeans in the region grew from one million to 3.4 million hectares, indicating that the region constitutes the current agricultural frontier in the Cerrado (Agroicone, 2016).

According to data from the Satellite Deforestation Monitoring of the Brazilian Biomes (PMDBBS), under the responsibility of the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), among the ten towns that deforested most in the biome in 2011, four are in western Bahia.

In addition to its economic importance in the state, the region comprises a territory of high ecological and productive value situated between the towns of Luís Eduardo Magalhães and Barreiras, the Environmental Protection Area of the Rio de Janeiro Basin.

EAST OF PARAGUAY

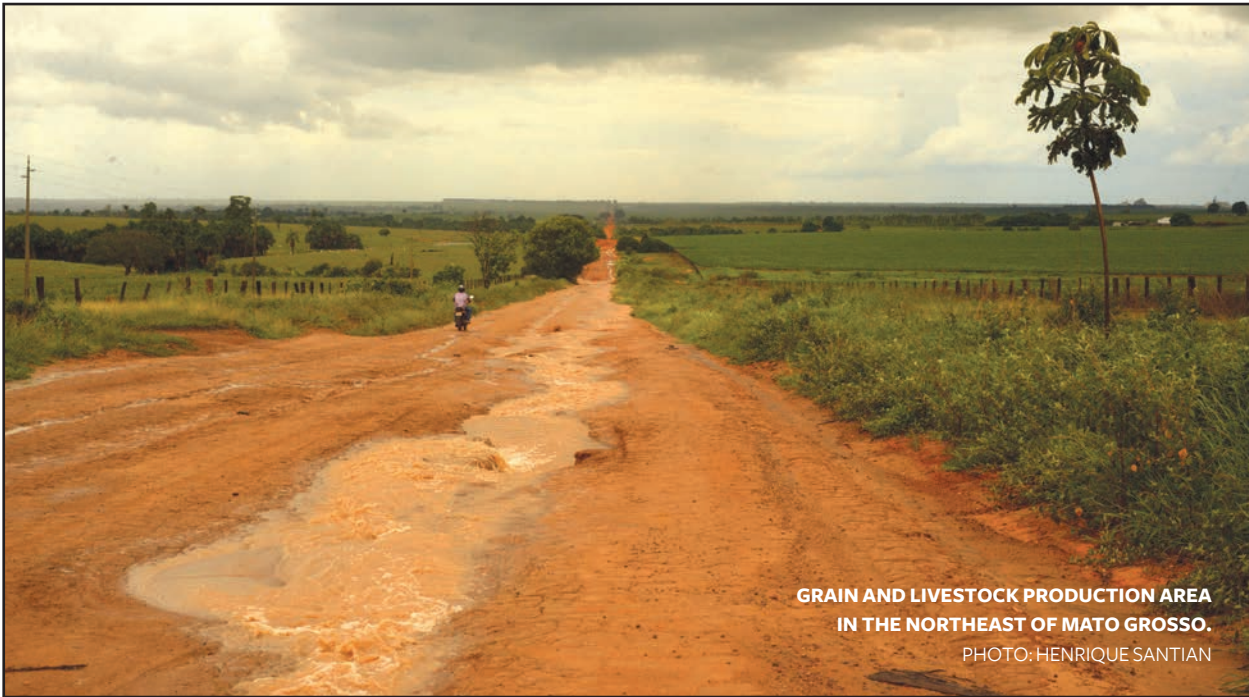
In the last two decades, Paraguay has witnessed a remarkable expansion of soybean cultivation, tripling its productive area in the period. This expansion process has resulted in high rates of deforestation, especially in the eastern region, where much of Paraguay's production is concentrated.

Currently, the country holds the 6th place in the world ranking of the grain production, with soy being the primary product of mechanized agriculture and its culture as the main revenue generator in Paraguay. In the 2016/2017 harvest, 3.46 million hectares were allocated to its production, representing a growth of 6.1% over the previous harvest (USDA, 2017).

The country's production takes place mainly in large and medium-sized properties (> 100 hectares) and is characterized by the high degree of mechanization and technification, intensive use of precision agriculture, inputs and investment capital.

Although the country has experienced significant economic growth in the last decade to which the agriculture sector has contributed substantially (as well as recent social policy improvements), the poor rural population still suffers from being disconnected from this better economic performance.

Considering that in 2014, 32% of the Paraguayan rural population lived in extreme poverty (IFAD/UN, 2015), socio-productive inclusion is a priority in initiatives aimed at contributing to a sustainable territorial development.



GRAIN AND LIVESTOCK PRODUCTION AREA IN THE NORTHEAST OF MATO GROSSO.
PHOTO: HENRIQUE SANTIAN

IMPLEMENTED PROJECTS



Sustainable Landscapes for soy production in the Brazilian State of Mato Grosso

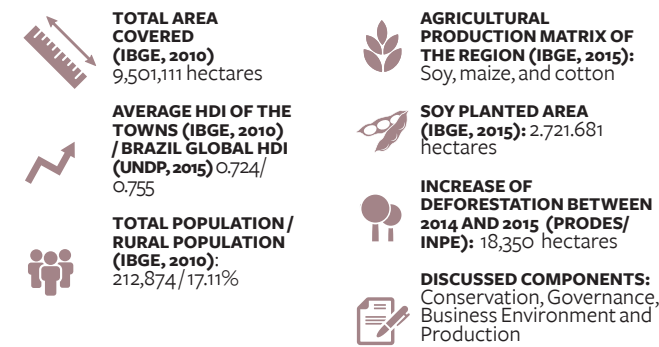
Implementing Partner: The Nature Conservancy (TNC)
Co-financier: Amaggi, Syngenta e The Nature Conservancy

Objective: To outline and test actions that advance the fulfillment of the Forest Code through work with rural producers and the creation of sustainable, functional landscapes that reconcile high levels of productivity to the conservation of ecosystem functions.

Main results: Based on a mapping of environmental assets and liabilities (box 3), carried out by TNC in the nine towns covered by the project, the Strategic Forest Restoration Plan was developed for the Alto Teles Pires and Alto Juruena regions and adopted into PCI strategy as a methodology to be replicated in other regions of Mato Grosso. The published study shows the bottlenecks of the restoration value chain and brings recommendations for its development.

In Lucas do Rio Verde, scenarios for the regularization of a Legal Reserve were elaborated and discussed among rural producers. One of the main challenges for the post-Rural Environmental Registry agenda is a concerted regional action so that the decision on the allocation of the Legal Reserve also considers benefits to the landscape by compensation and/or forest restoration.

In addition, the project contributed to the incorporation of the environmental module into the Soja Plus Program, in cooperation with the Mato Grosso Soybean and Maize Producers Association (Associação dos Produtores de Soja e Milho de Mato Grosso - Aprosoja) and the Brazilian Association of Vegetable Oil Industries (Associação Brasileira das Indústrias de Óleos Vegetais - Abiove). Workshops and training on the Forest Code and Good Agricultural Practices were carried out in all towns through this partnership.



BOX 3 ENVIRONMENTAL LIABILITIES DIAGNOSED IN THE ALTO TELES PIRES AND ALTO JURUENA REGIONS

- 15 thousand hectares of riparian forest to be restored
- 906 thousand hectares of Legal Reserve deficit in nine towns
- 22 thousand hectares of Legal Reserve deficit in Lucas do Rio Verde

Source: The Nature Conservancy

“We rethink the way forest restoration takes place in the towns contemplated in the project. In our understanding, forest restoration occurred in a timely manner, that is, each producer did his restoration when it was interesting or convenient, and this was not mapped. Today, we know where the demands are, who are the actors involved in the restoration, which difficulties this chain faces, the existence or not of some communication links that should exist and we have brought some recommendations and effective plans to the main actors who are trying to structure this chain and make it work as a value chain.” Alex Schmidt, TNC project coordinator.

Querência +: Sustainable Territories in Mato Grosso

Implementing partner: Amazon Environmental Research Institute (Instituto de Pesquisa Ambiental da Amazônia - IPAM) and Socioenvironmental Institute (Instituto Socioambiental - ISA)
Co-financier: Amaggi, Cargill, Grupo Roncador and Rabobank

Objective: To increase sustainability in agricultural activities in the town of Querência by articulating a multistakeholder process to catalyze social, economic, and environmental benefits with interventions in three themed areas:

- Strengthening local socioenvironmental governance
- Supporting the establishment of a local pact for a Sustainable Landscape through the Multisector Forum
- Improving opportunities to promote family farming in settlements

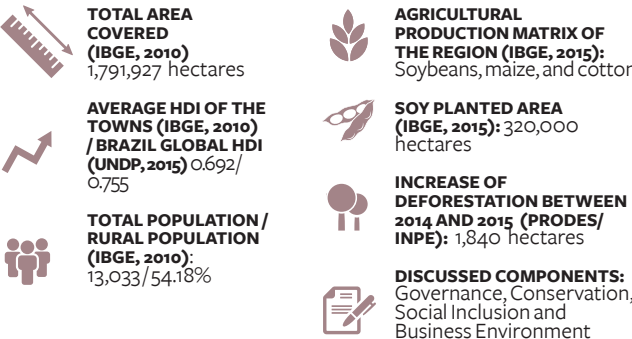
Main results: Through mobilization and articulation of local social actors, the project achieved significant results (box 4) in increasing mechanisms for local governance, strengthening relationships between local government, the Rural Union and small producers and settlers, with the creation of a multisectoral forum and the reactivation of the Municipal Environmental Council (Conselho Municipal de Meio Ambiente - CMMA).
Based on a municipal socioenvironmental diagnosis and the mapping of deficits and surpluses of Legal Reserve areas in the municipality, scenarios for their forest compensation were outlined and presented to the local actors, providing a basis for future choices on the environmental adequacy of the properties to take into account environmental and social gains, as well as economic ones.

Action plans were prepared for forest restoration, removal of embargoes and collection of investments for the Municipal Environmental Fund (FMMA).
Also, the project offered training and support for settlers with the purpose of identifying productive chains that can be alternatives to soy, as well as designing plans to organize production and access markets through the strengthening of social organizations within four settlements in the town.

“One of the main results was the reactivation of the Municipal Council of the Environment and its restructuring. People on the council are interested in the environmental cause and, today, they have a work plan. They are empowering themselves through the town’s environmental management. There are a number of challenges, but we will host several capacity training for representatives to understand the role of the council and the role of the members. This is a great result!”, points out Marcelo Stabile, from IPAM.

BOX 4 LIST OF MATERIALS PRODUCED IN THE TOWN

- Socioenvironmental diagnosis
- Proposal to end embargo
- Municipal plan for the restoration of degraded areas
- Plan to organize the production and promote commercialization for chains in settlements
- Strategic fundraising plan for the Municipal Environment Fund (FMMA)
- Soy in settlement projects
 - Family farming diagnosis and market options
 - Analysis of forest compensation possibilities



Promoting a supply area without socioenvironmental risk: a sustainable territorial approach in northern Mato Grosso

Implementing partner: Centro de Vida Institute (Instituto Centro de Vida - ICV)
Co-financier: Fundo Vale, Moore, Good Energies, Avina, CLUA and farmers

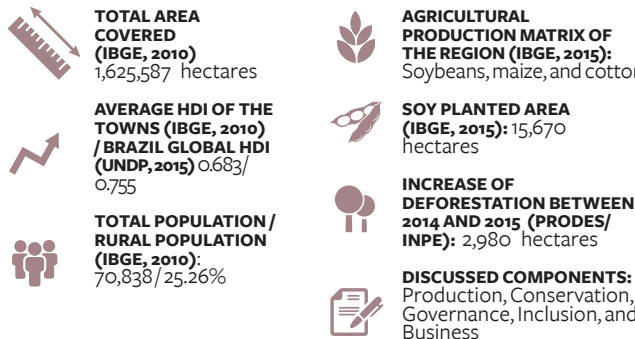
Objective: To build a vision of the future for agricultural areas of sustainable origin for meat and soy in northern Mato Grosso, based on the implementation of a municipal scale model, rooted in the Novo Campo Program (Portuguese for “New Field” Program, box 5) and the Sustainable Towns Program (Programa Municípios Sustentáveis). For this, the project developed:

- Proofs of concept for the dissemination of sustainable production systems for soy and livestock
- Proofs of concept for the forest restoration of degraded areas, given the conservation of ecosystem services
- Good practices for the production of meat on livestock farms

Main results: The developed activities involved the elaboration of a policy brief on the opportunities and challenges of soybean expansion in northern Mato Grosso. Among the recommendations brought by the study is the need to consider the structural chains of the local economy and their interconnection with the ecosystem services that maintain them. Recognizing the environmental particularities of each territory was considered an essential element in reducing negative impacts of the development of the soybean production chain.

The project supported the formation of a Forest Restoration Working Group at the state level of the Produce, Preserve and Include strategy, offered courses and training on forest restoration and ecological corridors for technicians and analysts from the city and state Environment Departments. A study was conducted on the use of geotechnologies for spatial planning and monitoring of degraded forest restoration of Permanent Preservation Areas (APP), which led to publication. The material brings the results of the analysis to prioritize areas to be restored in the three towns, based on the landscape analysis.

Also, the activities in the field resulted in the productive and environmental diagnosis of 23 livestock farms, in the formulation of economic, technical projects, in the forest restoration of 37 hectares and in the creation of a platform to monitor the farms of the Novo Campo Program.



BOX 5 NOVO CAMPO PROGRAM

Launched in 2012, it is an initiative coordinated by the ICV which promotes sustainable practices on livestock farms in the Amazon, improving its economic, social and environmental performance.

It aims to:

- Promote the sustainable intensification of livestock farming
- Reduce the pressure for more deforestation
- Meet the demand for meat with sustainable origin and zero deforestation verified

“The project results compose the state discussion on scenarios and opportunities for restoration, as well as indicators of the success of the restoration to meet the goals of the PCI strategy. The data were gathered to compose the PCI monitoring as a result of a State Working Group coordinated by the ICV. In addition to monitoring information, the project approach test is fueling a new construction of PCI regional pacts in which strategic geographic data will be the basis for possible pacts for the production, conservation, and inclusion of local actors.”
Alice Thuault, Deputy Director of ICV.

Managing socioenvironmental risks in soybean territory in northeast Mato Grosso

Implementing partner:
Earth Innovation Institute (EII)
Co-financier: Amaggi

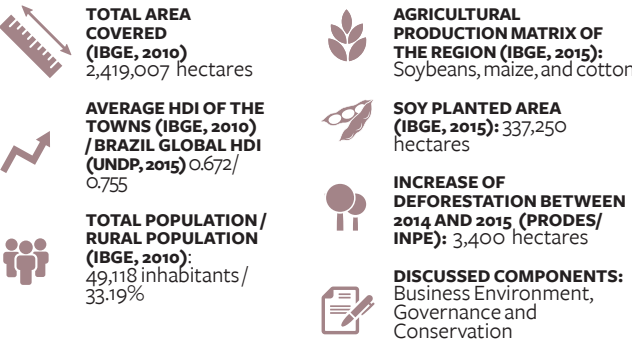
Objective: The project tested a participatory multisectoral approach in towns at different stages of soybean development in the northeast of Mato Grosso based on the creation of an online platform to evaluate operational, reputational and financial risks related to production, as well as opportunities to overcome them to open up markets and attract investment at the municipal level.

Main results: In the towns selected as representative of three stages of soybean development in the territory (initial, intense conversion and consolidated), the adopted approach consisted in mapping risks in the soybean supply areas through indicators of environmental, social and productive performance gathered on the online monitoring platform Produce and Protect (box 6). Developed and customized within this project, the platform covers all towns in Mato Grosso and was chosen to monitor the PCI State Strategy goals. In addition, the platform incorporates criteria of the continuous improvement program for rural properties, Soja Plus.

After a mobilization and articulation work with actors of different sectors within the territory, multisectoral groups composed of representatives of local governments (Agriculture and Environment Departments and municipal administrations), civil society (NGOs, rural unions and settlements) and the private sector (companies and traders) were organized in each town to identify priority local themes and possible actions to improve local sustainability.

The groups were responsible for elaborating action plans aimed at mitigating socioenvironmental risks identified and validated on the platform, supporting the commercialization of local production, attracting new investments and improving the quality of life in the territories.

The elaborated plans identified as priority goals to promote environmental adequacy, emphasizing forest restoration of rural properties, land regularization and the strengthening of family farming in the towns.



BOX 6 PRODUCE AND PROTECT PLATFORM
It is an online monitoring tool designed to connect businesses and consumers by identifying territories in which commodities are produced.
It allows the monitoring of social, environmental, productive and legal compliance performance indicators of the covered towns.

“Our approach has worked as an extension of PCI for the towns. We have developed a platform to integrate them into this strategy. PCI goals were used in multisectoral meetings within the actions that the program identified as relevant in each town. The idea was to help the state achieve the goal through more feasible actions. In most towns, people didn’t even know what PCI was, so our work also helped in the process of presenting this strategy to the towns and visualizing the common demands of the different local actors and the program.” **Oswaldo Carvalho, Associate Researcher at EII.**

Management Plan for the Environmental Protection Area (APA) of the Rio de Janeiro Basin, in northwest Bahia

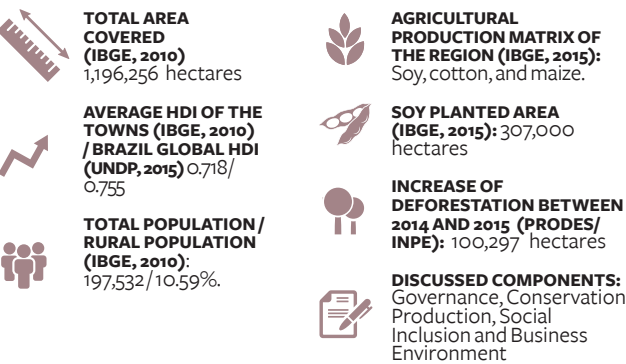
Implementing partner:
Aiba Institute (IAIBA)
Co-financier: Association of Farmers and Irrigators of Bahia (AIBA) and farmers

Objective: The project proposed to lead the elaboration of a Management Plan and the consolidation of a Management Council for the APA Rio de Janeiro Basin, as well as to implement the infrastructure for the Environmental Regularization Center to support properties that produce cotton and other crops, such as soybeans, in the region.

Main results: The project fostered the application of environmental legislation at the state level, directly supporting the implementation of the National System of Conservation Units (SNUC). Therefore, a technical cooperation agreement was signed between IAIBA, the Institute for the Environment and Water Resources (Inema) and the Environment Department of the State of Bahia (SEMA) to elaborate the Management Plan - an important tool for management and territorial planning in the region - and to draw up the composition process for the APA Management Council.

The project significantly contributed to the improvement of local governance, promoting a broad mobilization process of social actors from local to state level, involving NGOs, local leaders, representatives of the state and municipal government and the productive sector. This process was consolidated through the direct election for the APA Management Council, in March 2017. At the time of this publication, physical, biological and socioeconomic diagnoses were performed. They constitute the basis for the Management Plan, which is in the process of validation with public bodies.

At the same time, through the Environmental Regularization Support Center, 165 rural producers were guided by environ-



mental legislation to meet the requirements to join the Environmental Regularization Program and the use of good practices in agriculture. In addition, 57 records on the State Forest Registration of Rural Properties (Cadastro Estadual Florestal de Imóveis Rurais - CEFIR), corresponding to an area of 79,000 hectares, were prepared and/or updated, and support materials were produced on environmental regularization of rural properties in Bahia and the cotton processing industries and solid waste management in rural properties.

“The project is very innovative here in the region. It will be the first Conservation Unit of the West region of Bahia that will have a Management Plan and Management Council. This is a significant fact! The mobilization to draw up the Management Council created an interrelationship between different actors, who previously did not come together to talk and are now entering into an agreement and thinking of a management plan, incredible as it may seem. It was a tremendous advance!” **Alessandra Chaves, IAIBA project coordinator.**

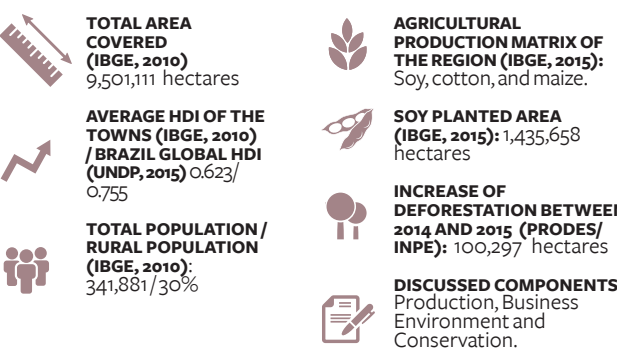
Strengthening the Soja Plus Program in western Bahia, Brazil: a passport to the European market

Implementing partner: Brazilian Association of Vegetable Oil Industries (Abiove)
Field developer: AIBA
Co-financier: Abiove and farmers



Objective: The project aimed to promote the continuous improvement of environmental, economic and social indicators of soybean farms in the western region of Bahia through the Soja Plus program (box 7).

Main results: The project not only leveraged the adoption of the program but also contributed to its dissemination among small and medium producers in the region. In numbers, the project was responsible for 130 producers joining Soja Plus, which represents an assisted area of approximately 680 thousand hectares. It also contributed to 114 properties registering in CEFIR and joining the Environmental Regularization Program (PRA). Applying the Soja Plus checklist in 2015 and 2016 showed significant improvements in socioenvironmental criteria, especially in risk management, health, and occupational safety. Gradual and continuous training activities - courses, field days, technical visits, meetings about rural property management and distribution of technical materials - offered subsidies for the adoption of better productive, environmental and social practices and the awareness of the rural producers, increasing legal compliance in rural properties.



BOX 7 SOJA PLUS PROGRAM

It is a nationwide transparent and participatory management program for soybean farms that seeks to meet the market demands for sustainable products.

It empowers the rural producer at no cost to improve farm management by distributing materials, promoting courses on health and safety at work, adapting rural constructions, promoting environmental regularization, field days and technical visits to monitor performance indicators.

“Every time an environmental, social and economic improvement is made, it tends to be copied. If there is a farm that participates in Soja Plus and has social and environmental improvement, the neighbor sees that it works and wants to do the same. There is no way out. Every good practice - environmental, social or economic - tends to be copied. So the multiplier effect is powerful!”. **Bernardo Pires, Sustainability Manager at Abiove.**

Sustentagro: Building a risk-free origination area for soybean production in the eastern region of Paraguay

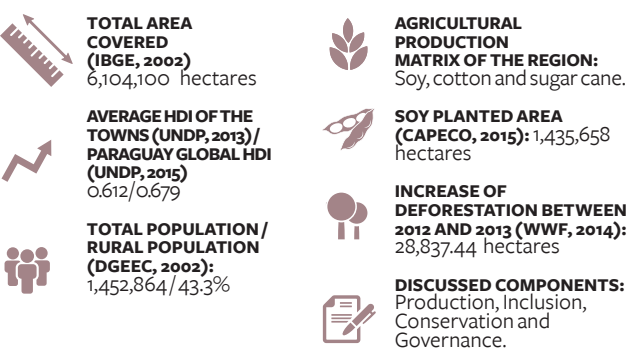
Implementing partner and co-financier: Archer Daniels Midland (ADM)



Objective: To provide support to producers in eastern Paraguay for ongoing improvement of their agricultural practices, integrated into ADM's production chain, and enable them to provide sustainable soybeans to the European market. It also aims to promote natural resource conservation, improve the management of productive activities and the social welfare of workers, rural producers, and local communities. For this, the project was articulated in three main components:

- Producer support
- Native forest conservation
- Support for local community engagement

Main results: Based on a socioenvironmental indicator checklist created by ADM, the project expanded the adoption of good practices in 175 properties, especially in the area of safety and quality of life at work, raising them to a new level in the process of continuous improvement in property management due to a change in producers' mentality. Producers took part in training sessions and received specific guidelines and action plans to increase their compliance with the Sustentagro program and with environmental and social legislation. The activities developed in the native forest component allowed the protection of 13,620 hectares of forests within 13 rural properties. In addition, 97 environmental licenses were issued for rural properties, and material about forest protection and good environmental practices was produced. The project provided a pilot experiment through the implementation of monitored microprojects to solve problems in communities around the cultivated areas, with 97 participants. Participatory Rural Diagnoses were carried out in six towns. Training on sustainable landscape and risk-free area approach was offered to over 350 participants, including representatives from local communities and NGOs, rural workers and ADM's administrative and business teams.



“Through the Sustentagro project, ADM's suppliers understood the concept of sustainability and were able to apply it to their properties. It also increased awareness of environmental legal compliance and the importance of preserving native forests among local producers and communities.” **Lorena Ramirez, program manager at Solidaridad, Paraguay.**

LESSONS LEARNED

In line with the themed axes defined in the SFTF III monitoring system, the main results and lessons of the third phase were systematized considering their interventions in the five essential themes for the construction of sustainable landscapes: Governance, Production, Conservation, Social Inclusion and Business Environment. In this chapter we will present their contextualization, the results and the main lessons shared in each one of them.

GOVERNANCE

PRODUCTION

CONSERVATION

SOCIAL INCLUSION

BUSINESS ENVIRONMENT



WORKSHOP ABOUT FOREST
RESTORATION IN RURAL SCHOOL IN
PARANAÍTA (MT).
PHOTO: ICV

GOVERNANCE

Local governance is one of the foundations for building a Sustainable Landscape. To establish and maintain effective local governance structures, it is necessary to mobilize, articulate and empower the actors in the production chain and the territory. Doing so guarantees dialogue spaces that require the participation of different actors, both in the diagnosis of environmental, social and economic problems and in decision-making and action processes.



TRAINING WORKSHOP FOR MULTIPLIER
AGENTS OF THE APA RIO DE JANEIRO
BASIN MANAGEMENT COUNCIL, IN
BARREIRAS (BA). PHOTO: IAIBA

To contribute to local governance structuring in the towns or regions of operation, SFTF III projects proposed actions to **strengthen the capacity to implement the Forest Code** (box 8), which has as its fundamental instruments the Rural Environmental Registry (CAR) of rural properties and the Environmental Regularization Program (PRA). Furthermore, the **construction of a common landscape** vision was leveraged by the establishment of platforms, multisectoral forums and working groups, which are responsible for identifying challenges and create action and monitoring plans for the sustainable and inclusive development of the territory. These elements

BOX 8 THE FOREST CODE (LAW 12.651 / 2012)

It establishes general rules on the protection of native vegetation and determines in which areas and under which conditions it can be explored.

It defines the areas to be preserved and which regions are allowed to receive the different types of rural production.

For this, it establishes as mechanisms the Permanent Preservation Area, designed to protect ecologically sensitive sites, such as springs, riverbanks and hillsides; and the Legal Reserve, a portion of the rural property in which the vegetation must be preserved, and where exploitation for sustainable forest management must take place within the limits established by law, according to the biome in which it is inserted.

and the lessons obtained by developing projects in the governance area will be further elaborated below.

STRENGTHENING THE CAPACITY TO IMPLEMENT THE FOREST CODE

The actions aimed at increasing rural properties’ enrollment in the Rural Environmental Registry or state registry systems linked to it. **Courses and training were carried out with municipal administration teams** to practice procedures involved in the CAR (box 9), develop action plans and collect resources for municipal environmental funds.

BOX 9 RURAL ENVIRONMENTAL REGISTRY (CAR) AND ENVIRONMENTAL REGULARIZATION PROGRAM (PRA)

CAR is currently an essential governmental tool that allows monitoring of land use in the territories.

It is the first step for PRA, contributing to the establishment of more accurate and effective municipal and regional strategies for the adaptation of environmental liabilities, the search for opportunities for regional environmental assets and the development of compensation mechanisms.

The next steps foreseen by PRA are to establish commitment terms and to elaborate Recomposition Projects for Degraded and Changed Areas, as well as to create Quotas of Environmental Reserve (CRA), when appropriate.

The execution of proposed actions in the governance area by the projects in Mato Grosso occurred simultaneously with the formulation and establishment of the Mato Grosso System of Rural Environmental Registry (SIMCAR). This gave them have a key role in demonstrating the gaps and improvements needed in the system, such as the projects that contributed directly to the Produce, Preserve and Include strategy.

The **continuous training of public agents and civil society** was pointed out by the implementing partners as one of the significant contributions of the projects, paving the way for a more structured and consistent social fabric and a more effective environmental governance.

Based on this premise, the Querência+ project, implemented by IPAM and ISA, conducted training with members of the Municipal Environmental Councilto develop action plans to solve issues related to the embargoes in the city and to identify financing sources for the city environmental fund.

“A significant result was a plan to raise funds for the Municipal Environment Fund. This plan shows how to finance the fund that already existed, but only as a law. We supported structuring, creating a bank account, and now we are capacitating board members to apply the resources. This is related to empowering the municipal administration”, says Marcelo Stabile, from IPAM.

Another strategy used by SFTF III partners to disseminate the topic of the environmental adequacy of rural properties among other actors in the production chain and local communities included promoting workshops, lectures and participating in exhibitions and events related to agribusiness.

“It was the first time in history that an environmental preservation NGO attended Safra Show, in Lucas do Rio Verde, this huge event, bringing the topic of restoration to participant farmers. We had a booth demonstrating some restoration techniques and also held a lecture about restoration for about 300 people during the event”, says Alex Schmidt, TNC project coordinator.

Published support materials, such as maps, brochures, and booklets, have also proved to be useful, informative tools for different audiences, from rural producers and municipal and state public server teams to multisectoral groups focused on local environmental governance. About the IAIBA experience, Alessandra Chaves says:

“AIBA made a booklet with the support of IAIBA for rural property regularization, initially thinking that it would clear doubts of rural producers of the western region, focusing only on the Cerrado. The material worked so well that we did a second edition to cover the entire Bahia because institutions from other regions were using the first edition.”

CONSTRUCTING A COMMON VIEW OF LANDSCAPE

To build a common vision of sustainable landscape in



“In most towns, people didn’t even know what PCI was, so our work also helped to present this strategy to the towns and visualize the common demands of different local actors.” **Oswaldo Carvalho, Associate Researcher at EII**

CONVERSION OF PASTURE INTO RUBBER TREES IN THE SÃO MANOEL SETTLEMENT PROJECT IN QUERÊNCIA (MT).
PHOTO: LUCAS RAMOS/IPAM

the territory, the projects proposed to create and/or restore effective multi-sectoral **platforms, forums and working groups** (box 10). This provides structures and mechanisms for local governance through which specific **action plans for each landscape and restoration commitments** can be agreed upon. The challenges within the theme were varied due to the proposals and goals defined in each of the projects, as we will see below.

In the project with IAIBA, the innovative proposal to establish a public-private partnership to carry out the management plan and form a Management Council for an Environmental Protection Area (APA) has brought challenges that involved processes such as the Technical Cooperation Agreement between the State Department of the Environment (SEMA), the Institute for the Environment and Water Resources of Bahia (Inema) and IAIBA, and the mobilization of different social actors in the territory to form the Management Council.

The leadership role played by the private sector in conducting the project through a continuous and systemic mobilization of local stakeholders regarding the importance of the Management Plan for the region,

BOX 10 MULTISECTORAL PLATFORMS, FORUMS AND WORKING GROUPS PROMOTED BY STFT III

- IPAM/ISA Project: Municipal Environmental Council and Multisectoral Forum in Querência/MT
- IAIBA Project: APA Rio de Janeiro Basin Management Council, Bahia
- ICV Project: State Working Group for forest restoration in Mato Grosso
- EII Project: Multisectoral groups in Confresa, Canarana and São José do Xingu/MT

and its possible positive impacts was crucial to expedite the procedures foreseen by SNUC and to engage representatives of the three sectors: public, private and civil society.

“As a result of the mobilization to compose the Management Council, the members represented diverse sectors. If we compare with other (Conservation) Units in which Inema takes up the mobilization process, sometimes we can’t

“For us, the biggest challenge of establishing this public-private partnership was to draw up the agreement and convince the institution that manages the Conservation Unit, Inema, that the project would be important to bring sustainability to regional agribusiness, and that Aiba had no interests involved”, Alessandra Chaves, from IAIBA.

even fill all the vacancies. In that case, we even had competition! This is a very positive result!”, says Agatha Barreto Xavier, Environment Specialist Technician at Inema.

While building a consensus for a sustainable landscape that includes different social actors and land uses is a long and challenging process, **establishing a clear and straightforward goal** to form landscape governance groups was considered a relevant factor for local mobilization during the SFTF III. Also, **converging interests of different sectors and formalizing agreements for joint action in the territory** offered credibility to the establishment of short, medium and long-term plans and targets to improve landscape sustainability.

In the city of Querência, the project with IPAM and ISA contributed to reactivate the Municipal Environmental Council (CMMA) - that was extinguished in 2010, after the city was excluded from the list of towns with the highest rates of deforestation in Brazil - and to articulate a Multisectoral Forum. They meet different demands of local actors and focus on establishing action plans for the landscape.

“The Council has a fixed composition, with representatives of the Rural Union, trade sector, and settlements. It aims to support environmental management in the town and lists short, medium and long-term priorities. The forum is open to the general public. So if an individual producer wants to make a claim, or an indigenous person, or anyone else, it is a more democratic space. Within this forum, one of the first demands was to create a Restoration Plan for Degraded Areas”, says Marcelo Stabile, from IPAM.

Success in mobilizing and engaging different local social actors in the two local governance groups is associated with several factors, such as the **long history of action, com-**

mitment and multiscale performance of both implementing organizations in the territory, as well as the involvement of the private sector with the project management committee and local governance groups. In addition, Rodrigo Junqueira, coordinator of ISA's Xingu Program, points out the experience of the joint work of two organizations with different cultures and histories as a fundamental factor for future initiatives and the different organizations working in the territory:

“Although it may sound natural, this hardly happens anywhere. Developing this project, we had the opportunity to exercise and learn from each other. This also generates trust in the territory. That is, when more than one organization acts in a town, in partnership, we present ourselves as a single entity for the city administration and the other actors in the town.”

For IPAM and ISA, **more significant advances depend on long-term and continuous work in supporting multisectoral discussion spaces**, so that local governance mechanisms solidify and the plans achieve more concrete results. In this sense, **the commitment of implementing organizations to the territory in which they operate and the existence of objectives that exceed the short-term goals**, strengthening the protagonism of local actors, were considered key factors to achieve more perennial results and a more autonomous governance.

“Within a multisectoral governance arrangement, we were able to maintain a minimal team to continue the work that we started. If this were not the case, we would not know what the consequences would be, but we know the importance of continuity, regardless of the project”, analyzes Rodrigo Junqueira, from ISA.

In the project with the EII, the jurisdictional approach based on the organization of local multisectoral committees has had positive repercussions in the towns involved and support of municipal government offices. However, fostering the participation of other social actors - especially the productive sector - in these groups proved to be challenging, mainly due to the need for continuous and long-term work to mobilize, articulate and increase the commitment of local actors from different sectors.

“Participation in the groups was sometimes not very intense. We realized the importance of acting locally in advance to articulate the actors. This was the lesson from this project.”, analyzes Oswaldo Carvalho, Associate Researcher at EII.

The challenges faced by the institute also showed the **need to articulate top-down and bottom-up strategies**, that is, to link the mobilization of local actors, the diagnosis of their interests and needs in the territory and the interests of higher-scale actors such as governments, NGOs and companies, since sectoral agreements and strategies are only effective when there is a history of mobilizing and engaging actors in the region.

Within the strategy adopted by the EII project, to connect production chains to do a risk analysis in the territories where they operate, **there is still a gap between the agreements signed by the productive sector to improve sustainability and its local performance** in the northeast of Mato Grosso.

“There is still some rejection. We expected more involvement from the productive sector, but local trading teams, for

example, work on production targets. For them, sustainability is already on the checklist they receive, and they end up just looking at that. It is more difficult to discuss local actions in the landscape”, Oswaldo analyzes.

In this sense, the experience of the project with ICV points out the **importance of the productivity indicator in engaging the actors from the productive sector**, especially when it comes to livestock.

“Having a trust relationship with the producers is essential to start any work in the environmental area. Another point that we have always taken into account in these projects is that you can never forget to include a component of the productive area of the farm. We have to demonstrate our genuine interest in the producer's business. Otherwise, any sustainability discussion goes down the drain”, says Franscisco Beduschi, from ICV.

The convergent views of the different actors and interests in the landscape proved to be crucial for structuring a local environmental governance process. Therefore, a lesson we learned is the constant need to understand the values of economic, social and environmental risks and benefits shared by all actors in the territories where the projects were developed. For this, governance spaces need to be comprehensive and inclusive, guaranteeing representation for different actors within the territory, and that their processes strengthen the participation capacity of more vulnerable groups to understand the challenges of the territory and implement joint actions.

PRODUCTION

Agricultural production represents the most tangible aspect of the landscape, interconnecting the environment, work, and product. It is directly related to the natural resource base because it is where the choices about the use of soil, water, and other natural resources are made. Also, productive systems and their economic benefits influence people’s quality of life directly, through rural employment and income generation, and indirectly, since the activities practiced in the territory can impact the communities around cultivated areas and their subsistence.

Improving production systems and efficient land use reinforce the need for **good practices in soybean and cattle production** to increase their sustainability and guarantee access to more demanding markets. In this sense, the activities carried out by SFTF III projects to stimulate these practices were based on the experience and lessons from phases I and II, available online, in which the focus of the projects was to expand and promote enrollment in continuous improvement and certification programs.

To improve production systems and reduce their environmental impact, other alternatives have also shown to be economically viable, such as **intensification of livestock production, meat production, and crop-livestock integration**. Both systems have several benefits such as: optimizing land use, keeping land occupied throughout the year, reducing erosion risk through the use of no-tillage, maintaining soil cover and allowing product diversification.

One of the lessons learned from the landscape approach is that, in addition to improvements in large-scale production systems, there are demands and opportunities for **production diversification**, aiming to structure new productive chains and address local markets, reducing greenhouse gas emissions from transportation and

enabling the inclusion and maintenance of family farmers in the local production system.

The results and lessons of the SFTF III projects in the production area are explored in the next topics.

GOOD PRACTICES IN SOYBEAN AND LIVESTOCK PRODUCTION

Within the production area, SFTF III promoted **good agricultural practices on landscape scale** through programs for continuous improvement of property management and use of social and environmental indicators for its monitoring. For that, training sessions for producers, employees and agricultural professionals were carried out during the projects.

In the case of the Abiove project, the critical factors for successfully implementing the Soja Plus Program in western Bahia were: **establishing strong partnerships** (especially with Aiba and the Federal University of Viçosa), the **confidence of the rural producers**, due to the long history of the institutions in the region, and the **motivated and well-qualified technical teams**.

IMPLEMENTATION OF FIELD IMPROVEMENT SYSTEMS

Projects	Number of producers trained in good agricultural practices	Represented area (hectares)
ICV	23	10,107
IAIBA	130	325,946
ABIOVE	165	230,000
ADM	175	132,678



“The result was very positive, especially regarding the awareness of rural producers about the social and environmental aspects of the rural property. We could bring up the understanding that if the employee has new Personal Protective Equipment, good housing, and balanced meals, he will contribute much more to the property and will work hard. Also, it decreases the risk, for example, of him taking legal action against the rural producer, which means higher legal certainty for the producer and more efficiency.” **Bernardo Pires, Sustainability Manager at Abiove.**

In Paraguay, the change in mentality, with producers understanding the concept of continuous improvement, was one of the most important results achieved, according to Lorena Ramirez, from Solidaridad, Paraguay. She also highlights the relevance of aligning the expectations and responsibilities of each actor in the chain and using the agricultural calendar for planning activities for the success of the project.

“The concept of continuous improvement was installed in the minds of producers, enabling specific actions in property management practices, such as maintaining records to plan the next harvest strategically, improving working conditions and infrastructure - pesticide deposits, for example - using safety equipment and practices to improve land use. Some farmers made investments soon after receiving the recommendations, others are still planning to do so as it takes time

and requires significant financial resources”, says Lorena.

INTENSIVE SYSTEMS FOR MEAT PRODUCTION AND CROP-LIVESTOCK INTEGRATION

The results of Novo Campo Program (Table in the next page) - part of the ICV counterpart in the project developed in SFTF III - demonstrated the viability and the advantages of **intensive systems in meat production**, using Embrapa’s Good Agricultural Practices.

A lesson about intensive livestock breeding was that **productivity growth must be in line with meat quality**, as Francisco states.

“Today, slaughterhouses are looking for these properties

NOVO CAMPO PROGRAM

Comparative data of conventional and intensive meat production systems	Conventional system	Intensified Area
Profitability	R\$100/hectare	R\$ 975/hectare
Productivity	1.22 head/hectare	141 head/hectare
Age of slaughter (males):	44 months	30 months
Age of slaughter (females):	34 months	24 months
Weight gain:	180 kg	200 kg

(with the intensive system) because they know they have young animals and good quality meat. However, we still don't see a willingness to actually pay for this type of initiative", he said.

For him, the critical point is **establishing communication mechanisms between producer and consumer** to remunerate sustainable production practices.

Besides livestock production intensification, new land use strategies are essential to avoid deforestation.

“The first great lesson of Novo Campo Program is that it is possible to have deforestation-free livestock and meet market demand, both regarding quality and quantity. However, it is still a struggle to implement Redd + policies so that producers have some compensation for avoiding

deforestation. There has to be continuity because, without it, we are not able to implement this model on a large scale”, he explains.

PRODUCTION DIVERSIFICATION

A policy brief on the impacts of soybean expansion in the north of Mato Grosso, developed through the ICV project, resulted in a consensus among local stakeholders on the positive and negative effects of soybean expansion, with recommendations to reduce their negative impacts. Also, the study included a **diagnosis of agribusiness and family agriculture production chains** in the three studied towns, providing municipal public managers with information on policies to strengthen both productive sectors.

“In addition to production chain certification, the path to responsible soy is based on the recognition of the particularities of each territory and the negative externalities generated by this chain. The analysis of the impacts of soybeans must go through the three pillars of sustainability (economic, environmental and social). In the socioeconomic aspect we need to consider the structural chains of the local economy - such as livestock and family farming chains - and their interconnection with the ecosystem services that maintain them, along with the environmental particularities of the territory”, says Alice Thuault, Deputy Director of ICV.



EVALUATION REPORT DELIVERED TO LAGUNA LINDA FARM IN CAAGUAZÚ, PARAGUAY. PHOTO: CONTROL UNION

For her, rural producers’ proactivity to come up with productive solutions and to form diverse social arrangements that go beyond local public management can be vital to reducing local negative impacts on soybean production, **building shared solutions for land use and natural resource sustainability.**

The strategies for a sustainable landscape approach in the several territories covered by the SFTF III - with a significant presence of soybean and cattle - signaled the **importance of conciliating the different production chains within the landscape.** Therefore, it is a crucial strategy to promote sustainability from the economic, environmental and social perspectives.



SOJA PLUS PROGRAM, FROM ABOVE, PARTICIPATING IN PASSARELA DA SOJA FIELD DAY IN LUIZ EDUARDO MAGALHÃES (BA) PHOTO: AIBA



SOYBEAN FARM IN NORTHEAST MATO GROSSO. PHOTO: HENRIQUE SANTIAN

REDD+ (Reducing Emissions from Deforestation and Forest Degradation) is an international mechanism to help decrease deforestation and slow down climate change, contributing to reduce carbon emissions and alleviate poverty in developing countries (Source: UNFCCC REDD+ Web Platform).

CONSERVATION

Environmental conservation represents aiming to maintain ecosystem services that are necessary for the survival and sustainability of human life quality and productivity in the landscape.



RIVER NEAR A LOT IN BRASIL NOVO SETTLEMENT PROJECT, QUERÊNCIA (MT).
PHOTO: LUCAS RAMOS/IPAM

The projects achieved tangible results in increasing the environmental adequacy of the properties in the territories covered by the SFTF III, as well as the capacity of city administrations, departments, and local governance groups to apply the procedures listed in the Forest Code, contributing directly for the **implementation of the Rural Environmental Registry**. Other actions developed by the projects contributed to **spatial planning aiming at forest restoration and landscape connectivity** through mapping and

diagnosis of the remaining vegetation and their distribution in space, as well as proposing restoration **plans and scenarios for the Legal Reserve in the properties**. Finally, the project carried out by The Nature Conservancy in Mato Grosso proposed to develop a broad study to foster the **creation and strengthening of the restoration value chain**. The results, challenges, and opportunities verified in conservation projects will be addressed below.

IMPLEMENTATION OF THE RURAL ENVIRONMENTAL REGISTRY

Three projects directly contributed to encouraging properties to enroll in the **Rural Environmental Registry and join the Environmental Regularization Program** in town in the west of Bahia and northeast of Mato Grosso, totaling a registered area of 646 thousand hectares.

Projects	Nº. of properties registered in CAR / CEFIR	Registered area (hectares)
Abiove	114	564,000
IAIBA	57	79,000
IPAM/ISA	50	3,000
Total	221	646,000

“IAIBA really believes in CEFIR. We embraced this cause from the beginning, and the rural producer also believed. For producers, it is a regularization instrument, and for environmental enforcement agencies, it is a monitoring tool. So everybody wins, and we support it.” **Alessandra Chaves, Project Coordinator with IAIBA.**

A major challenge found within the public sphere for the projects developed in Mato Grosso was the change of the property registration system from the federal level (SICAR) to the state level (SIMCAR), still under development during SFTF III. As Alex Schmidt, TNC Project Coordinator, explains: “The rural producers went through three phases of the system, so their dissatisfaction with how long it is taking is remarkable. However, it does not affect their enrollment in any way. In every database in the towns that we operate, we have identified that the average enrollment in the system reached 90%. The producer wants to get into the system, but wants to have a way out, which was not happening yet”, he ponders.

For the Querência + project, which supports registering rural settlement lots in Querência in SIMCAR, the difficulties were even more significant, due to the lack of definition about settlement lots by the National Institute for Colonization and Agrarian Reform (INCRA). A solution found by IPAM, ISA and Solidaridad was elaborating a database with land use maps for 2008 and 2016 and their transformations, containing the perimeters of settlement lots, as well as forms to be filled in with the settlers’ personal data to facilitate the inclusion in the Rural Environmental Registry when the module is available, as reported by the SFTF III manager, Joyce Brandão, who followed the entire process of designing and implementing the projects. “To ensure that the settlers had access to the data produced by the project, which can contribute to the process of environmental regularization in the future, we proposed that the implementers make this data available to them, as final beneficiaries.” During SFTF III, in addition to the migration of systems for property registration, environmental liability regularization procedures were still undefined, which made it difficult to complete negotiations and implement action plans in the landscape. Alex Schmidt of The Nature Conservancy explains the measures taken by the project to go around this problem. “The rules of the game, that is, what the producer needs to do in case he has a liability, the state of Mato Grosso has not yet defined. However, the city of Lucas do Rio Verde is prepared to apply the PRA. All Legal Reserves are mapped. When the rules are defined, the information that rural producers effectively need to be regularized are ready”, he says. Regarding the proposal of removing embargoes in Querência, the process was more complicated and prolonged than expected, due to the need for greater alignment among the public institutions responsible for the steps in removing the embargo. “After surveying the embargoed areas, we were able to articulate the process with SEMA, IBAMA, INCRA and the State Public Ministry. What we found is that the institutions don’t talk to each other, so it is necessary to create a space to talk and build a plan to work together on removing the embargoes”, says Marcelo Stabile from IPAM.

The lesson, in this case, was the **need to foster greater articulation and dialogue among the public institutions involved in the environmental regularization process**. To overcome this challenge, after the dialogue with the institutions involved in the process, the Municipal Environmental Council started to act closer to the municipal and state governments, demanding greater articulation among public institutions to solve the city’s environmental liabilities.

Generally, in the projects developed by SFTF III in Mato Grosso, it was observed that the **disarticulation between the governmental agencies and the lack of definition in legal procedures and instruments for the environmental regularization** of rural properties were limiting factors for more effective results in the implementation of CAR.

SPACE PLANNING FOR RESTORATION AND CONNECTIVITY

Within the topic of compliance with the Forest Code and

from a landscape approach point of view, spatial planning is indispensable to **enhance the effects of forest restoration** -- in terms of maintaining biodiversity and biological flow by establishing ecological corridors connecting forest fragments.

As shown by the ICV project -- Portal da Amazônia, which proposed to develop proofs of concept for restoration of degraded areas and conservation of ecosystem services, one of the lessons learned was that **the larger the area analyzed, i.e., going beyond the rural property limits, the greater the potential of connecting fragments within the landscape** and, consequently, the greater the chances of conserving species of biodiversity.

“Looking towards the landscape, it is possible to prioritize areas for forest restoration that will bring greater environmental gains. This also enables the identification of areas to be restored with greater potential for natural regeneration, for having closer forest fragments and a flow of wild animals, reducing forest restoration costs”, says Wesley Buturi, Geotechnology Analyst at ICV.

In the study promoted by the NGO, the spatial analysis

“Looking towards the landscape, it is possible to prioritize areas for forest restoration that will bring greater environmental gains. This also enables the identification of areas to be restored with greater potential for natural regeneration, for having closer forest fragments and a flow of wild animals, reducing forest restoration costs.” **Weslei Buturi, Geotechnology Analyst at ICV**

FOREST RESTORATION DEMONSTRATIVE UNIT WITH DIRECT SOWING (MUVUCA) AT THE RIO VERDE FOUNDATION, IN LUCAS DO RIO VERDE (MT). PHOTO: TNC

made it possible to verify the existence of several disconnected fragments and vast forest corridors linking the towns of Carlinda, Alta Floresta and Paranaíta to the Teles Pires river. For Diego Bona, environmental management analyst at ICV, **it is necessary to start working on restoration within the watersheds, so that the results will be more visible**.

“Currently, Alta Floresta has 50% of remaining native vegetation and 23% of degraded APPs. By combining zero deforestation agricultural production with the recovery of Forest Code liabilities, we will promote an increase in vegetation that can reach 73% of the territory in Alta Floresta”, analyzes Bona.

The project results contribute to the state discussion on restoration scenarios and opportunities, serving as indicators of success in meeting the PCI strategy goals.

The projects with The Nature Conservancy and IPAM/ISA mapped land use between 2008 and 2015 to measure the areas of environmental assets and liabilities in the Legal Reserve region in Lucas do Rio Verde and Querência.

In Lucas do Rio Verde, the environmental assets and liabilities of the Legal Reserve were mapped out to implement a pilot Municipal Environmental Regularization Plan. Based on this diagnosis, the scenarios for regularization of Legal Reserves were elaborated, stating the establishment of mechanisms for environmental compensation and forest restoration. Groups were also formed to discuss the solutions envisaged by the Forest Code. Due to the change of the SEMA team, it was necessary to renegotiate the pilot environmental regularization plan. However, the conclusion of the results will depend on adapting the action plan to the procedures defined by the state environmental agency, since the definition of the Environmental Regulation Plan (PRA) module within SIMCAR occurred after the period co-

vered by the SFTF III.

The Nature Conservancy also conducted land use mapping and survey of liabilities and assets in the Permanent Preservation Area, including deforested areas after July 2008, consolidated areas and remaining vegetation, in all nine towns involved in the project.

A common finding among the interventions carried out by the projects was the lack of knowledge about the environmental legislation by the producers, which is directly related to the lack of interest and engagement in the landscape. In this sense, **to boost environmental regularization processes in the landscape, one of the lessons was the need to carry out informative work aimed at the rural producers**, alerting them about the possibilities of legal adaptation of their properties.

“We know that to come up with a legal scenario or a Legal Reserve solution, you have to deal with various legislation issues. Working with this information clearly and precisely, so that the producer understands that he is included in this context, is fundamental to achieve our environmental adequacy objectives and replicate actions in other towns”, analyzes Alex Schmidt, project coordinator at TNC.

IPAM and ISA mapped hydrography and land use in the city, using satellite images from 2001, 2007 and 2016. From the consolidated hydrography and the land base, they came up with a deficit of Permanent Preservation Area of 2.9 thousand hectares. **The town has 595 hectares of Permanent Preservation Area in the process of restoration, with 105 hectares being restored with support from the Querência+ Project.**

Regarding the Legal Reserve assets, according to the 2001, 2008 and 2016 use maps, the estimated forest asset was 35,128 hectares (which can be legally deforested), the liabilities 250,000 hectares, and the surplus in 2001 7,565 hectares (that cannot be deforested, but may issue CRA Environmental Reserve Quota).

The environmental liability that can be compensated is 212,237 hectares (deforestation before 2008), and the estimated liability to be restored was 37,220 hectares (deforestation occurred after 2008).

The diagnoses carried out by IPAM/ISA and TNC contribute to understand and dimension the challenge of en-

LUCAS DO RIO VERDE	QUERÊNCIA
22 thousand hectares of environmental liabilities	250 thousand hectares of environmental liabilities
8 thousand hectares of forest assets	35 thousand hectares of forest assets

vironmental regulation in the cities, with the participation of local actors who have joined efforts to make Querência and Lucas do Rio Verde more sustainable.

In the Querência project, the assessments make up the Legal Reserve Compensation Plan, that should result in the protection of forests in the city and other locations in Mato Grosso. This database is essential for the next steps of the action plan, which involves the removal of embargoes and environmental regulation.

CREATING AND STRENGTHENING THE RESTORATION VALUE CHAIN

Considering that, for the effective implementation of the Forest Code and to meet the consequent demand that should be generated, aiming at compliance with the Environmental Regularization Plans (PRAs), Conduct Adjustment Agreement (TAC), and Plans for Restoration of Degraded and Altered Areas (PRADA), it is essential to **develop and structure a restoration value chain** to enable the environmental conformity of rural properties.

In this context, the study developed by The Natural Conservancy - which culminated in the elaboration of the Strategic Plan for Forest Restoration for Alto do Teles Pires and Alto do Jurueña (PERF) regions, adopted as one of

the Produce, Preserve and Include strategies - represents a significant contribution to enable large-scale restoration, showing the bottlenecks for the consolidation of forest restoration as a value chain.

Some of these bottlenecks are the seed supply, the structuring of its collection regarding scale and quality, the local seedling production and the poor dissemination of restoration techniques adapted to the region, with a good cost/benefit ratio. In addition to structural difficulties, there is also need to train technicians to offer quality assistance to the rural producers in the process of restoring and monitoring the areas.

PERF concludes that the identified **driving forces (financial agents, inspectors, and markets) are key to the development of this value chain and the creation of a market**, still incipient in the region. The use of timber and non-timber products from restored areas, Permanent Preservation Areas, and Legal Reserves can also help boost the productive restoration chain.

The final result of the construction of the PERF points to the **need to implement the first restoration cycle, initially focusing on planning**, integrating seedling demand and production in regional nurseries, and supporting efficient monitoring tools for regulatory institutions, strengthening command and control mechanisms.



The images were taken by Landsat satellites, 30-meter resolution, for 2001; SPOT, 2.5-meter resolution, for 2007; and RapydEye, 5-meter resolution, for 2016.

It is important to note that the APPD estimate may differ from others due to the methodology used and the high resolution of hydrography.

Article 68 of the Forest Code establishes that owners or holders of rural properties in the Legal Amazon, who have a Legal Reserve index higher than 50% of forest cover and have not deforested after 2001, may use the surplus area to constitute environmental servitude or Environmental Reserve Quota.

SOCIAL INCLUSION

In the Sustainable Landscape approach, social inclusion becomes a fundamental, particularly challenging and cross-sectional theme, since it should be a precept for action in other areas when it comes to proposals aimed at contributing to a sustainable territorial development. Therefore, it is a matter of developing actions that fight exclusion from the benefits of living in society and enable equal access opportunities to goods and services for all. It is worth mentioning that generating a process of social inclusion in a territorial perspective is a complex task that requires long-term action and should focus on strengthening the autonomy and empowerment of local social actors.



During SFTF III, the actions aimed at fostering active participation of more vulnerable social groups - indigenous peoples, family farmers and local communities - in local productive and commercial arrangements and in the decision-making process that affects the territory through governance groups, while guaranteeing their access to public policies for land and environmental regularization. The Querência+ project proposed to evaluate better opportunities to promote family and small-scale agriculture, identifying the **economic potential of the leading productive chains of the settlements**

to support the greater diversification of production and access to the local market. The study showed that there is local demand for food, especially fruits and vegetables, currently supplied by other towns and states. They could be produced and supplied by local family agriculture.

The results were presented to the settlers, while they received guidelines to organize swine, manioc, milk, meat and peach palm production chains.

“These five chains are now more structured and organized within the settlements. When we arrived, the initiatives were more spread. Today we know who the actors who work

“For us, the project was very good. ISA and IPAM helped us know how to organize ourselves. Small groups of producers were formed by sector to facilitate milk and peach palm sales. In the marketing part, the project has always been supportive. It is fundamental, and the professionals are excellent. It is a kind of help we didn’t have; it is very important for our growth. People are starting to understand that producing with organization makes subsistence easier. You can produce a little bit of each thing and add up to a lot. We are getting structured”, says Kezia Dias de Souza, from Pingos D’Água settlement in Querência.

within these chains are. We have held several meetings to show how an organization works, how the product enters the market, how it is processed. This was a very concrete action of the project”, says Valter Hiron da Silva Jr., socio-environmental development technician at ISA.

About the work carried out in the Pingos D’Água settlement in Querência, the producer Kezia Dias de Souza says that the project supported the organization of producers by sector, to facilitate the commercialization of the products.

“The two production fronts that we have here in the settlement are milk and peach palm. We still don’t consider ourselves milk producers because we would need higher profitability to live off of this activity. We started very recently and made a very high investment. If I calculate the investment I’ve made so far and the profits, it doesn’t even match”, she says.

The producer explains that new investments will be necessary to achieve long-term productivity and profitability and that the settlers will discuss the possibility of converting the soybean area into livestock lots to increase the volume of milk produced in the settlement. During the SFTF III, some of the producers started participating in Embrapa’s “Full Bucket” project, for the sustainable development of dairy farming through technology transfer and production intensification.

In Confresa, where the project was carried out with EII, work with the Rural Development Council - composed mostly of settlers of the agrarian reform - brought the demand for productive diversification as one of the urgent

aspects for the elaboration of action plans for the city. The topic was also addressed in the policy brief developed by ICV, that confirmed the need to strengthen family agriculture in the north of Mato Grosso.

The three projects developed in the North and Northeast of Mato Grosso conclude that for an inclusive territorial development in soybean origination areas, it is necessary to encourage the maintenance and diversification of local production and supply, income generation and access to more stable markets by family farmers. Therefore, **investments in technical assistance aimed at training and organizing small producers** prove to be useful and necessary tools for the construction of sustainable landscapes. The first steps in this direction are preparing diagnoses of existing production chains and verifying possible connections with local consumer markets.

Throughout SFTF III the projects could also contribute to **social inclusion in governance groups**, articulating and mobilizing representatives from different sectors in more participatory spaces for decision-making and planning of joint actions in the territory.

In the IPAM and ISA project, creating the multisectoral forum and reestablishing the CMMA contributed to the construction of more democratic spaces for dialogue. The project has successfully fostered the participation of family farmers and indigenous peoples who hold a significant portion of Querência territory - in these spaces, however, the presence of the latter in the governance groups is still a delicate issue among rural producers, even without direct conflict between social groups.

“The forum became a space for indigenous peoples to introduce themselves and show the activities they were doing. It was



WORKING GROUP MEETING IN CONFRESA (MT) TO DEVELOP THE MUNICIPAL ACTION PLAN. PHOTO: JOYCE BRANDÃO

derived from the very dynamics of this territorial approach.” Rodrigo Junqueira, from ISA.

For Valter, from ISA, the great challenge in fostering higher representativeness of social actors within local governance spaces has been to involve the big producers.

“Our biggest challenge is to involve the big producers. Today, we have no problem getting the indigenous people involved, as well as the settlers and small producers, who are already participating in the discussion on the adequacy of environmental liabilities. As for the large producers, we still have a tough time bringing them into this discussion.”

The project with IAIBA, in the west of Bahia, was successful in guiding the formation of the APA Rio de Janeiro Basin Management Council, where the social representativeness of the members is provided by law, thanks to a wide mobilization and awareness process within all the social groups operating in the perimeter. Thirty representatives of the civil society, public and private sectors were elected, comprising residents from within and around the Conservation Unit.

One of the lessons learned in the project is the **need to summarize clearly and objectively all the information produced**, such as biophysical and socioeconomic diagnoses. This will **support decision-making in the territory, facilitating the communication between different actors** and allowing all categories to understand and partic-

ipate, with the same level of knowledge, in the planning process and territorial management.

In Paraguay, the project with ADM, which fostered the engagement of local communities in environmental governance, was responsible for developing a pilot experience that consisted in implementing participatory rural diagnoses and developing microprojects to solve problems for local communities, focusing on shared territorial benefits.

“Within this component, the most important result was to change the desire of local community members to receive social assistance for focus on the benefits for the community. That was a result of the activities carried out in the three microprojects showing that with strategic organization, changes are possible”, explains Lorena Ramirez from Solidaridad Paraguay.

In addition to creating more representative and participatory governance structures, both projects mentioned previously contributed to the environmental regularization of small producers and/or agrarian reform settlers through the registration of properties or tenures in the state rural environmental registry systems (SIMCAR and CEFIR).

In Mato Grosso, the project with IPAM and ISA had the agrarian reform settlers as a priority public for environmental compliance actions. It brought to light the **need to define legal procedures and tools for settlement lot**

⁴ Being cross-sectional, the results achieved by this project are included in the Conservation area.

⁵ The creation of these multisectoral groups was described and analyzed in the Governance chapter. However, in this chapter, we will focus on the challenges and lessons of the projects from the perspective of social inclusion.

registration in the state of Mato Grosso.

“The great challenge is still the module for agrarian reform (within SIMCAR). While it is not established, the agrarian reform areas will continue to be launched into the system as tenures, and there is a risk that this will be modified again later. There has to be a different validation, which is

already happening with the CARs performed before the system change”, explains Valter, from ISA.

In the IAIBA project in western Bahia, the actions have also contributed to the inclusion of small producers in the environmental regulation process within the APA Rio de Janeiro Basin, as Alessandra Chaves says.

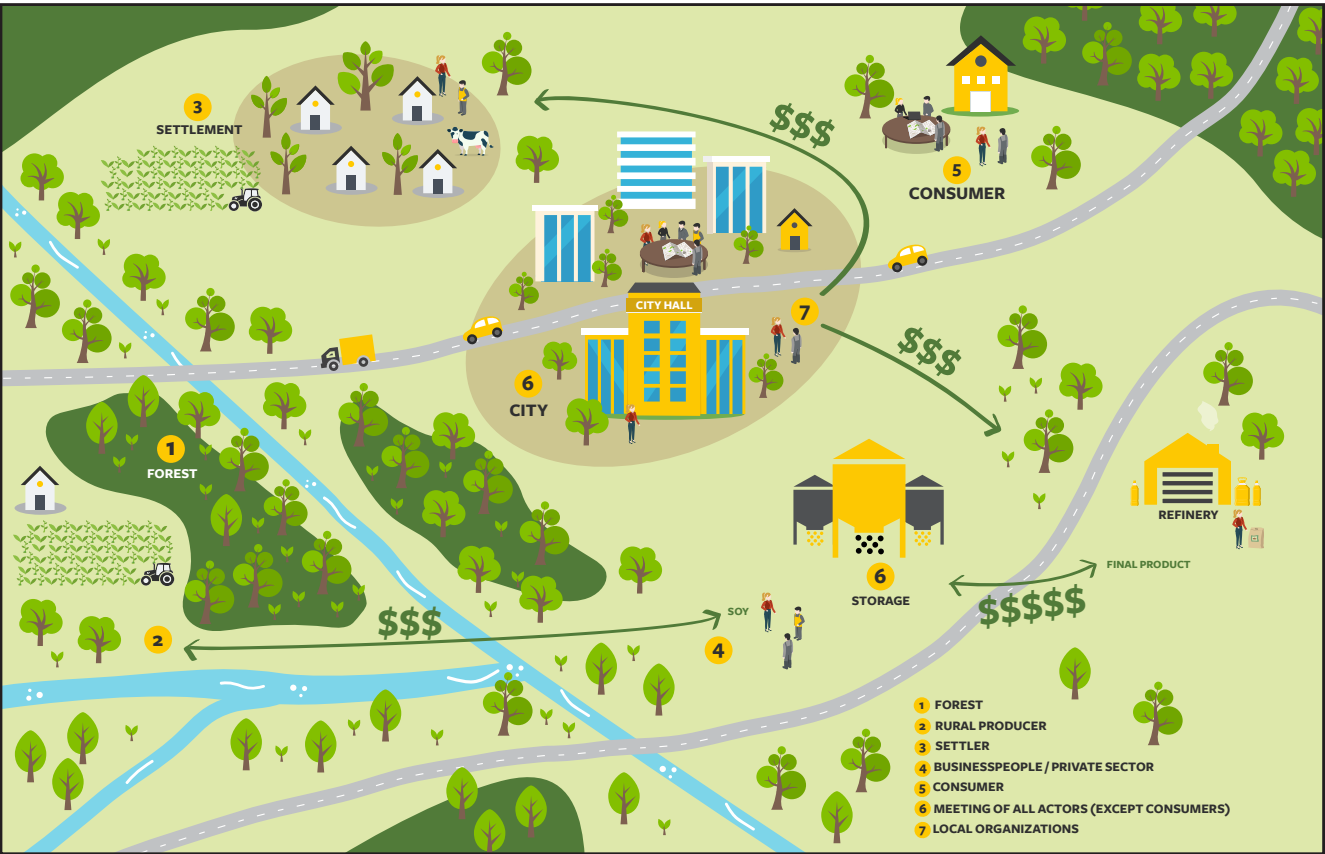
“The producers are concentrating efforts so that the companies contracted by the state to make the CEFIR also register these family farmers. Something else we are achieving, which is another step forward, is to think about the social aspect within the APA. Thinking about what we can do as a big producer, or as an agribusiness association to somehow train the small producers of this territory through SENAR courses, for example”, he explains.



REUNIÃO DO CMMA (CONSELHO MUNICIPAL DE MEIO AMBIENTE) COM MÚLTIPLOS ATORES DE QUERÊNCIA/MT. FOTO: IPAM

BUSINESS ENVIRONMENT

The business sector plays a significant role in the construction and maintenance of a sustainable landscape since it establishes the link between production and market. It connects the field to the consumer and can contribute substantially to change in productive practices by establishing purchase and sale policies, engaging and investing in its suppliers’



On the other hand, the landscape approach is beneficial for companies for bringing an integrated vision of the territory and its actors, allowing a synergy between interventions for improving practices within the production chain and public policies aimed at sustainable production and development of the region. Working under an integrated territorial perspective can increase the quality of life and legality in cities with low development rates and a history of high deforestation rates. This helps reduce risks in these regions, attracting investment and opening up new markets.

The SFTF III projects aimed to develop business cases within a sustainable landscape approach. However, due to their short duration, the benefits achieved were limited. In general, companies were able to experience the added value that landscape approach brought to business, allowing a more comprehensive look over the territory, enhancing convergent actions by actors from different sectors and increasing the impact on the continuous improvement process and adoption of good practices. “The relevance of these partnerships lies in the fact that

they can establish projects that have a direct link to the commercial issue and company structure and are also a gain for society. When you create projects to think about how to work better in a region, and you have partners to plan joint actions, they offer another look, allowing a breakthrough in the perspective that the company usually has. So, this partnership is very positive”, analyzes Juliana de Lavor Lopes, Sustainability Director at Amaggi.

“Working on the Sustainable Landscapes approach and looking for synergies between the different actors increased the impact achieved in the territory. We are working together from the private sector to civil society in a coordinated and constructive way”, says Ana Yaluff, Sustainability Manager at Archer Daniels Midland.

“The differential of the project was the coexistence between different sectors of society, seeking socio-environmental results that benefit all those who act within the territory. In the beginning, dialogue between producers and environmentalists was challenging. Today, there are still differences, but the perception is that we can produce, preserve and add value to the products that come from Querência”, says Caio Peni-

do, Sustainability Manager at Grupo Roncador.

Within this territorial perspective, to guarantee the origin of the product and allow **greater transparency along the links of the production chain**, some SFTF III projects proposed the development and application of monitoring and verification systems to evaluate the sustainability performance in production and supply areas.

It is worth mentioning that the use of such tools allows a deeper understanding of the risks and challenges in the production areas, contributing to the definition of more efficient and sustainable business strategies for both soy and meat production chains.

The results and lessons obtained in SFTF III, within the business area, will be discussed with more emphasis on the following topics.

**ENGAGEMENT OF PRIVATE SECTOR
CO-FINANCIERS IN THE LANDSCAPE**

The SFTF projects were co-financed by the private sector. In phase III, we experimented **territorial co-financing**, a new modality that was established articulating partnerships with private sector companies and organizations



that operate in the territories where the project acts. From these partnerships, co-financiers prioritized investments and actions for these cities.

Besides optimizing resource use, **the participation of productive sector companies and organizations in activities of the projects was strategic** to support the articulation and mobilization of producers and suppliers. “This partnership with the private sector was crucial in the development of the project. Many things would not work if they did not send their teams, help with contacts and invite the producers and suppliers of the chain to participate”, says Giovana Baggio of The Natural Conservancy.

In the project with IPAM and ISA, the participation of co-financiers was formalized through a management committee, which helped to direct the actions and search for solutions for the challenges faced while developing the project in Querência. The contribution of the private sector was directed to several actions of the project, like searching for a solution for the embargoes and the implementing the validation pilot for the Rural Environmental Registry in the town. In addition, **the co-financiers participated in the Multisectoral Forum and supported the construction of a political environment for its implementation, articulating the main local actors.**

“By participating in such initiatives, companies can learn a new way of working, closer to the territory in which they are interested. Once they become partners in this initiative, they can participate in a different way, gathering knowledge that allows them to confirm or revise their action strategy in that territory. This process increases accountability, allowing companies to be closer and understand better the reality of the city. Experiencing such a project enables

them to reorient their actions.” Rodrigo Junqueira, from ISA.

The project showed that partnerships between social organizations and the private sector are not only possible but necessary, increasing their potential to act upon the landscape.

“Grupo Roncador participated in the creation of the Environment Council in Querência and the articulation for the end of embargoes in areas within the town. We are very proud of how the initiative unfolded, evolving into the project Querência+: Sustainable Landscapes”, says Caio Penido of Grupo Roncador.

TRANSPARENCY ON SUSTAINABILITY PERFORMANCE IN PRODUCTION AND SUPPLY AREAS

To monitor the environmental, social and productive performance in the properties and show transparency on possible risks in soybean origination areas, some SFTF III projects used the following tools:

- Systems for ongoing improvement of environmental, social and productive criteria in the soybean and/or livestock farms, providing verification and technical guidance to farmers on changes in practices and necessary adaptations.
- Monitoring systems for risk analysis in production areas, which provide end consumers, retailers, and traders with socioenvironmental data about the towns where the suppliers are located.

Regarding the adoption of continuous improvement systems, the Abiove project strengthened the Soja Plus program in nine cities in the west of Bahia and promoted socioenvironmental performance improvement in 130 properties.

“Today, Bahia has the potential to be the first sustainable origin region in the world for the production of soybeans. In the state, it is concentrated in ten towns in the west of Bahia, where we are working. If we can demonstrate that we can meet the 200 indicators of the Soja Plus Program, we can say that soy in the whole region has a sustainable origin, which will open new markets for producers”, says



Bernardo Pires of Abiove.

However, the project showed that there is still concern among rural producers about the confidentiality of the socioenvironmental and productive performance of the properties, which hampers transparency in soybean origination areas. An alternative found in the project was to reveal performance in groups by region, not individually, by farm. Overall, the landscape approach has contributed to increasing the adoption of program criteria, which should attract better business prospects for the region and enable access to new markets.

The project with ADM was also successful in disseminating good practices among soy producers in Paraguay through the application of a socioenvironmental performance checklist based on legal compliance and the RTRS standard.

“The Sustentagro project is very important for ADM. Since 2010, we have worked with producers to build a sustainable supply chain. With the implementation of the program with Solidaridad and IDH, we have scaled up, reaching more producers and communities and including other aspects of the landscape, such as the relationship with municipal administrations and the work with native forests”, explains Ana Yaluff, Sustainability Manager of ADM.

Regarding the creation and **use of risk analysis tools for production** and monitoring of suppliers’ social and environmental performance, online platforms were developed for two projects during the SFTF III.

ICV was responsible for creating a platform to monitor Novo Campo Program farms, providing information on compliance with the Forest Code, Rural Environmental Re-

gistry records, areas with forest cover, as well as environmental and economic diagnosis of the properties.

“If there is no system to monitor and report that producers are meeting socioenvironmental criteria and are guaranteeing production within a model or system, we cannot demand more credit. We have to ensure this somehow, so we need a robust monitoring system to ensure that the recommended practices are being followed”, emphasizes Francisco Beduschi of ICV.

The platform is operating, and it is a valuable tool for monitoring productive areas in order to recognize and reward the investments made by farmers and connect them to more demanding markets, such as the European. Still, there is much work to be done to **expand the systems for monitoring supplier properties.**

Another monitoring tool built in collaboration with SFTF III was the Produce and Protect Platform, developed by EII to connect companies and consumers who want to buy sustainable commodities in the territories where they are produced. The platform aims to monitor progress in these towns. It is composed of environmental and social indicators, adapted throughout the project to contemplate the Produce, Preserve and Include goals. About the implementation experience, Oswaldo Carvalho, from EII, ponders:

“The risks are still not seen by local producers because nobody stops selling soy and meat. However, risk exists and is a limiting factor. In areas where large tradings operate, they have the sustainability checklist and care about risk

analysis. But the town does not see this as a risk in itself. The idea is to create these low-risk regions for investment, but this is very strong only for the private sector. For the public sector, it is not a priority.”

Platforms are important tools for end consumers, retailers, and traders, and at the same time, are an opportunity to show the farmers’ sustainability improvements to the landscape, making socioenvironmental indicators visible. However, their connection to the towns needs is still being developed. In this sense, we learned that **tools for territorial monitoring of risk analysis in soybean supply areas should be aligned with the interests of local actors and the needs of towns**, and preferably linked to larger scale goals, such as PCI in Mato Grosso, so that they can generate improvements for the entire production chain and on a large scale.

For Caio Penido, from Grupo Roncador, the main lesson for projects and partnerships that seek to develop the sustainable landscape approach to soybean or other agricultural commodity origins is the **need to seek new markets and add value to the products.**

“I think there was a time when monitoring and punishment were needed to establish the paradigm shift and reduce deforestation. Today, I believe we should focus more on opening new markets that recognize the attributes of a sustainable landscape, and try to add value to the products originated in it”, he explains.

CONCLUSION

Through SFTF III, IDH, Solidaridad, and their partners aimed to build and execute an approach to accelerate sustainable soybean origination areas in the states of Mato Grosso, Bahia and the eastern region of Paraguay. This approach is based on integrated interventions in the landscape and on the use of monitoring and evaluation indicators distributed in three axes of action.



PRODUCER FROM ALTA FLORESTA (MT) IN THEIR PERMANENT PRESERVATION AREA (APP), 1.5 YEARS AFTER PLANTING. PHOTO:ICV

MAIN RESULTS IN THE THREE SFTF III AXES OF ACTION 7 projects: north and northeast of Mato Grosso, western Bahia, and eastern Paraguay

CHANGES IN BUSINESS PRACTICES	IMPROVEMENTS IN LANDSCAPE GOVERNANCE	IMPROVEMENTS IN RURAL SUSTAINABILITY
• 493 rural producers invested and adopted systems for continuous improvement of social, environmental and productive practices; • Developing and adapting two monitoring and/or risk analysis platforms in soybean and cattle origination areas: Produce and Protect, and the Novo Campo Program Platform; • Implementing two continuous improvement platforms based on the application of checklists in soybean producing properties in Bahia and Paraguay; • Developing a policy brief on the opportunities and challenges in soybean expansion in Portal da Amazônia towns; • Family farming diagnosis and commercialization options in the local market in Querência; • Study about the soybean production chain in Querência settlement projects.	• Forming Multisectoral Groups to elaborate action plans for the landscape in Querência, Confresa, Canarana, and São José do Xingu, in Mato Grosso; • Forming the Management Council of the APA Rio de Janeiro Basin, in Bahia, and the State Working Group for Forest Restoration, in Mato Grosso; • Elaborating action plans to promote environmental regularization in Mato Grosso towns and a Management Plan for the APA Rio de Janeiro Basin, in the west of Bahia; • 848 producers and employees educated/trained in legislation and forest restoration.	• 698,731.38 hectares under good agricultural practices; • 225 Rural Environmental Registers completed; • 493 farmers trained in good agricultural practices; • 112.16 hectares of areas restored by the program; • Mapping APP environmental liabilities in 10 towns of Mato Grosso; • Mapping a total of 43 thousand hectares of assets and 277 thousand hectares of Legal Reserve liabilities in Lucas do Rio Verde and Querência and elaborating regularization scenarios for those liabilities; • Developing a study for geospatial planning aiming at the connectivity of the landscape in Carlinda, Paranaíta, and Alta Floresta; • Elaborating the “Strategic plan for forest restoration in the Alto Teles Pires and Alto Juruena regions”; • Elaborating the “Plan for production organization and commercialization promotion” for diversified productive chains in Querência settlements.

“A great gain of the SFTF III was this process of collective construction, of bringing linearity, a common look for the projects. We were able to conduct a dynamic process with organizations to outline the components that should exist in a sustainable landscape approach and that are necessary to advance in the concept of projects that align sustainable production of commodities to territorial development.” **Joyce Brandão, Programa Manager at Solidaridad Brazil and responsible for managing SFTF III.**

“The SFTF III Program showed the reality of the challenges to implement territorial management in agricultural regions in Brazil and Paraguay. Based on the results, today we know that the elements of governance, innovative financial solutions, and connection with markets are fundamental to the success of sustainability at the territorial level.”, **Daniela Mariuzzo, leader of the Territorial Program of IDH in Brazil**

The goal of the seven SFTF III projects was to bring the private sector, civil society and government together to align economic, social and environmental growth and develop sustainable land use planning. The projects were relatively short - two years, only facilitating the start of this process. Although in different stages, the projects succeeded in forming multi-sectoral groups for the joint definition of land use plans with targets for the different regions. These actions make up the first essential block of construction in the IDH landscape program in Mato Grosso.

Experience in this state has demonstrated that cooperation between government and third sector initiatives leads to synergistic actions and processes. The projects contributed to developing the state strategy to Produce, Preserve and Include through diagnostic studies, plans for environmental regulation in towns and regions, manuals for forest restoration (such as the one made by TNC, currently used as a guideline by Mato Grosso) and the development of monitoring platforms, most notably the one developed by the Earth Innovation Institute, that is being implemented by PCI. In Mato Grosso, IDH works as part of the PCI Coalition, led by the Government of Mato Grosso, to tackle deforestation and forest degradation in the state.

The role of IDH is to bring international investment into the landscape, to co-finance projects in the rural area and to create innovative financial solutions to encourage producers to conserve forests through productive intensification and forest restoration. To do so, IDH operates in 5 building blocks, as illustrated below:



Since 2011, when Solidaridad and IDH started a collaboration to put into practice a vision of sustainability that emerged within the global soybean chain, agriculture in Brazil and neighboring countries in South America has undergone an important transformation. New management models and the incorporation of socioenvironmental criteria into the production systems have become more and more common.

Phase III of the SFTF program allowed Solidaridad and its partners to test new approaches, expanding the action focus from the rural property level to the territorial level, promoting the concept of sustainable supply areas. Efforts began to focus on engaging governments, NGOs, the private sector and other agents of agricultural value chains in socioenvironmental improvements in the territory. When restricted to rural properties and certain products, intervention has proved to be limited, especially when it comes to large-scale impact.

These efforts aimed to create conditions in which different value chains, actors, and local governments worked together to improve socioenvironmental performance for an entire supply region. The territorial approach emerges globally as demand for rooting social actions by soy processing companies and final consumers. This means bringing decisions made globally to a local scale, where they interact with the demands of those territories.

However, in Solidaridad's view, the territorial approach still demands continuous commitment from the public and private sectors in the various decision-making scales. For that, Solidaridad has been strengthening its actions to broaden the engagement of global players from emerging markets, such as China, who still participate timidly in the discussions on sustainability and continuous improvement in global production chains and their supply areas.

Solidaridad understands that Chinese actors are key players in this movement, so they can understand the importance of actively engaging in sustainable soy origination, as well as other products, and can participate in sectoral commitments that reflect on the sustainability of the territory producing the raw material, in this case, the soybean.

BUILDING BLOCKS

BUILDING BLOCKS 1: THE PCI STRATEGY

It is essentially the plan for zero deforestation in Mato Grosso, aiming to increase production and reduce deforestation while restoring degraded forests and pastures. One of the pillars to reduce deforestation rates is to accelerate the legal compliance of soy producers. As part of the strategy to reduce deforestation, all SFTF III projects contributed to the implementation of the Forest Code and its wide adoption.

As demonstrated by the Soy Fast Track I and II programs, compliance with the Forest Code leads to a reduction in deforestation caused by soy production. IDH will continue to develop solutions to reduce deforestation based on work carried out by the SFTF, such as the ICV policy brief on soybean expansion at the Amazon border.

BUILDING BLOCK 2: PCI REGIONAL PACTS

Regional pacts are formalized agreements to ensure the subsistence of communities and improve land sustainability and productivity. The agreements allow investments in sustainable use (intensive livestock and legal adequacy of soy producers) in exchange for a strong commitment to environmental protection and social inclusion. A valuable lesson of the SFTF III projects was the existence of a large gap between

the elaboration of federal policies and their local implementation, so developing pacts will support the implementation of PCI policies at the municipal level. In this sense, a strong alignment with the Sustainable Towns Program will also be developed in order to work on land issues. IDH will help organize funding to cover the costs of its implementation.

BUILDING BLOCK 3: GOVERNMENTAL CAPACITY

To strengthen the local implementation of federal policies, an important step is to obtain accurate information about legal responsibilities, in which CAR validation plays an important role. In several projects, this process has been slow due to capacity issues with

thin government. To support government capacity, IDH signed a Memorandum of Understanding with SEMA MT to accelerate the validation of CAR in 20 towns with a high risk of deforestation.

BUILDING BLOCK 4: VERIFIED SUPPLY AREAS

Building market demand. In all projects, but especially in the projects with ADM and Abiove, it became clear that producers need a clear incentive from final buyers regarding the existence of a market for responsible soy. IDH facilitates dialogue between producers and consumers to align criteria and next steps to accelerate the responsible production and marketing of soy. For that, IDH organized a Memorandum of Understanding with Aprosoja, Abiove, Fefac (European Feed Manufacturers' Federation) and Fediol (The European Vegeta-

ble Oil and Protein Meal Industry). Also, demand from supply chain actors, such as members of the Consumer Goods Forum who have adopted zero deforestation commitments, will be connected to the pact areas. Connecting large-scale demand and supply enables long-term investments and benefits to rural landowners (see also platforms such as PAM, developed by TNC, or building block 5) and zero deforestation commitments. The expected result of regional agreements is that they become verified supply areas. Verified supply areas are

regions where the final consumer is fully aware of the sustainability status and the existing risks. Monitoring systems and platforms such as PAM, developed by TNC, or Produce and Preserve, by EII, provide clear views of regional data and strengthen local public and private go-

vernance. The 493 producers who have adopted continuous improvement production systems during SFTF III projects and those who are working independently have a clear business case to continue in this direction.

BUILDING BLOCK 5: PRODUCE, PROTECT AND INCLUDE FUND

A key lesson learned from SFTF III was that external funding is needed to foster restoration and sustainable production. A risk reduction investment facility called AndGreen Fund was developed by IDH and the Norway’s International Climate and Forest Initiative (NICFI). The fund will be used to secure resources to compensate the investment risk for

the private sector, making it co-responsible for forest protection “in return” for investment in intensifying production on already converted land. The fund can, for example, be used to reduce the risk of funding nurseries, to stimulate restoration economy, to restore pasture and to accelerate the intensification process of meat production.

KEY LESSONS

GOVERNANCE

● Establishing governance mechanisms depends on several local variables, from the history of stakeholder mobilization to the commitment of the private sector in the territory. For this reason, the strategies for its development must be outlined and implemented according to basic participation premises, identifying priority issues for higher long-term stakeholder engagement.

● For an effective governance process, it is necessary to mobilize, articulate and continuously train social actors and local multipliers, as well as to establish a clear and simple objective for the construction of mutually agreed action plans for the territory.

● There is still a gap between public sector decisions at the federal, state and municipal levels and their local implementation, and a lack of alignment among public institutions involved in the process of environmental regularization. To minimize this gap, tools and mechanisms of communication between different scales should be developed in order to improve intra and intersectoral dialogue.

● Likewise, there is also a gap between the agreements signed to improve sustainability by the productive sector and its local performance, so that an effective engagement in the territory through more assiduous participation in governance

groups becomes a priority, increasing representativeness in these spaces.

● Establishing and formalizing agreements for joint action between different organizations and/or sectors in the territory offers credibility for short, medium and long-term plans and targets for improving landscape sustainability.

● Monitoring and risk analysis tools in soy and livestock origination areas, such as online platforms, are still focused on meeting the demands of the private sector, not directly dialoguing with local governance.

PRODUCTION

● Building a trusting relationship with rural producers as well as establishing sound partnerships in the regions where they operate is the basis for continuous improvement on farms.

● Intensive production systems, such as meat and crop-livestock integration, are consolidated techniques that still need to be expanded to promote better

agronomic and economic practices and contribute to reducing deforestation for productive purposes.

● For the producer to improve integrated production practices, it is necessary to provide well-prepared technical assistance that includes the economic, social, environmental and productive aspects to enhance integrated property

management skills.

● To reduce negative impacts of soy production, it is necessary to consider and stimulate the structural chains in the local economy - such as livestock and family agriculture - and their role in maintaining ecosystem services to build shared solutions for the sustainability of land use and natural resources.

CONSERVATION

● The validation of CAR is a fundamental step for environmental regularization. Therefore the acceleration of this procedure becomes urgent to establish social, environmental and economically efficient strategies for land use planning.

● Spatial analysis containing the precise identification of environmental assets and liabilities and communication with the rural producers about

possibilities for legal compliance in the territory contribute to increasing their engagement in the process of environmental regularization and the definition of strategies for land use.

● It is critical to attract investment and increase private sector engagement in developing incentives to establish and expand the forest restoration value chain.

● For real recovery of degraded

areas, it is necessary to start the first restoration cycle aiming to plan the chain, integrating demand and production of seedlings in the regional nurseries.

● Command and control mechanisms should be strengthened through the use of efficient monitoring tools so that the environmental regularization of properties takes place in compliance with legislation.

SOCIAL INCLUSION

● Investments in technical assistance to train small producers and family farmers and organize production chains have proven to be effective to encourage the maintenance and diversification of local production and supply, income generation and access to more stable markets. The first steps in this direction are to prepare diagnoses of existing production chains and verify possible connections with local consumer markets.

● The strategy to mobilize actors in the rural area should be developed considering all social groups in the area, especially the vulnerable ones, to ensure their representativeness in local governance groups.

● Participation is a requirement for local governance spaces to be effective platforms for joint decision-making. To ensure this, it is fundamental to keep a level of knowledge in the planning and territorial management

process through synthesis and clear and precise communication of information produced by biophysical and socioeconomic diagnoses.

● Investments in technical assistance to support the enrollment of small properties in the CAR and the post-CAR agenda can contribute to the engagement and empowerment of small producers and family farmers in the territory.

● For more efficient and fruitful actions aimed at the environmental compliance of agrarian reform settlements, it is essential that

legal procedures and tools for registration of lots are defined and available.

BUSINESS ENVIRONMENT

● Integrated actions in the territory bring added value to the business sector from the commercial point of view and, at the same time, broaden the view and understanding of the reality of the region where it operates, contributing to increase its participation and co-responsibility in joint actions for the territory.

● The landscape approach allows the synergy between actions promoted by the different actors, increasing their impact

on improving local sustainability, as well as the benefits to the landscape, adding value to products from these territories.

● Monitoring systems for risk analysis in soy and livestock origination areas are a tool to recognize and reward the investments made by producers to improve sustainability in these regions. Although more demanding markets, such as Europe, want to be able to monitor supply areas, there is still

dissociation in the market in these regions.

● The development of tools for performance monitoring and risk analysis has the potential to integrate the responsibilities of global suppliers to improvements in the field. However, some work is needed to align expectations and needs at different scales, global and local, to foster improvements in the territories concerned.

“A strong point of this implementation process was to help define a territorial approach concept that would complement our production chain approach. It helped us format this concept, still under development within Solidaridad, which assists our work with the productive chains. Now we are combining our actions within the chain with the governance and territorial approach of Sustainable Landscapes”, **Fatima Cardoso, General Manager of Solidaridad in Brazil**

LIST OF ACRONYMS AND ABBREVIATIONS

ABIOVE – ADM - Archer Daniels Midland	IAIBA – Instituto AIBA (AIBA Institute)	Brazilian Biomes)
Aiba – Associação de Agricultores e Irrigantes da Bahia (Association of Farmers and Irrigators of Bahia)	IFAD – International Fund for Agriculture Development	PMS – Programa Mato-grossense de Municípios Sustentáveis (Mato Grosso Program of Sustainable Towns)
APA – Área de Proteção Ambiental (Environmental Protection Area)	IBGE – Instituto Brasileiro de Geografia e Estatística (Brazilian Institute of Geography and Statistics)	PCI – Estratégia Produzir, Conservar e Incluir (Produce, Preserve and Include Strategy)
APP – Área de Preservação Permanente (Permanent Preservation Area)	ICV – Instituto Centro de Vida (Centro de Vida Institute)	PERF – Plano Estratégico de Restauração Florestal (Strategic Plan for Forest Restoration)
APROSOJA – Associação dos Produtores de Soja e Milho de Mato Grosso (Mato Grosso Soybean and Maize Producers Association)	IDH – Sustainable Trade Initiative	PRADA – Plano para a Restauração de Áreas Degradadas e Alteradas (Plan for the Restoration of Degraded and Altered Areas)
CAPECO – Cámara Paraguaya de Exportadores y Comercializadores de Cereales y Oleaginosas (Paraguayan Chamber of Exporters and Traders of Cereals and Oilseeds)	IDHM – Índice de Desenvolvimento Humano Municipal (Municipal Human Development Index)	REDD – Redução de Emissões por Desmatamento e Degradação Florestal (Reducing Emissions from Deforestation and Forest Degradation)
CAR – Cadastro Ambiental Rural (Rural Environmental Registry)	Inema – Instituto do Meio Ambiente e Recursos Hídricos (Institute for the Environment and Water Resources)	RL – Reserva Legal (Legal Reserve)
CEFIR – Cadastro Estadual Florestal de Imóveis Rurais (State Forest Registry of Rural Property)	INCRA – Instituto Nacional de Colonização e Reforma Agrária (National Institute for Colonization and Agrarian Reform)	RTRS – Round Table of Responsible Soy
CF – Código Florestal (Forest Code)	INPE – Instituto Nacional de Pesquisas Espaciais (National Institute for Space Research)	SEMA – Secretaria Estadual de Meio Ambiente (State Department of the Environment)
CMMA – Conselho Municipal de Meio Ambiente (Municipal Environmental Council)	IPAM – Instituto de Pesquisa da Amazônia (Amazon Environmental Research Institute)	SICAR – Sistema de Cadastro Ambiental (Brazil’s National Environmental Registry of Rural Properties)
CRA – Cota de Reserva Ambiental (Environmental Reserve Quota)	ISA – Instituto Socioambiental (Socioenvironmental Institute)	SIMCAR – Sistema Mato-grossense de Cadastro Ambiental (Mato Grosso Environmental Registry of Rural Properties)
CONAB – Companhia Nacional de Abastecimento (Brazilian National Supply Company)	MMA – Ministério do Meio Ambiente (Ministry of the Environment)	SNUC – Sistema Nacional de Unidades de Conservação (National System of Conservation Units)
DGEEC – Dirección General de Estadísticas, Encuestas y Censos (General Directory of Statistics, Surveys and Censuses)	NICFI – Norway’s International Climate and Forest Initiative	SFTF – Soy Fast Track Fund
EII – Earth Innovation Institute	ONG – Organização Não Governamental (Non-Governmental Organization)	TAC – Termo de Ajuste de Conduta (Conduct Adjustment Agreement)
EPI – Equipamento de Proteção Individual (Personal Protective Equipment)	PRA – Programa de Regularização Ambiental (Environmental Regularization Program)	TNC – The Nature Conservancy
FEDIOL – The European Vegetable Oil and Protein Meal Industry	PRODES – Projeto de Estimativa do Desflorestamento da Amazônia (Program for the Estimation of Deforestation in the Brazilian Amazon)	USDA – United States Department of Agriculture
FEFAC – European Feed Manufacturers’ Federation	PMDBBS – Projeto de Monitoramento do Desmatamento nos Biomas Brasileiros (Satellite Deforestation Monitoring of the	UNDP – United Nations Development Programme

ADDITIONAL INFORMATION

To learn more about RTRS certification visit:
<http://www.responsiblesoy.org/?lang=en>

To know more about the Mato Grosso Program of Sustainable Towns, visit:
<http://municipiosustentaveis.mt.gov.br/#!/home>

For more information about the Produce, Preserve and Include (PCI) strategy, go to:
<http://www.pci.mt.gov.br/>

The “Produce and Protect” platform is available at:
<http://produceprotectplatform.com/>

The “Forest Restoration Strategic Plan for the Alto Teles Pires and Alto Juruena (PERF / MT) regions” is available at:
<https://www.nature.org/media/brasil/strategicplan-resta-uracao.pdf>

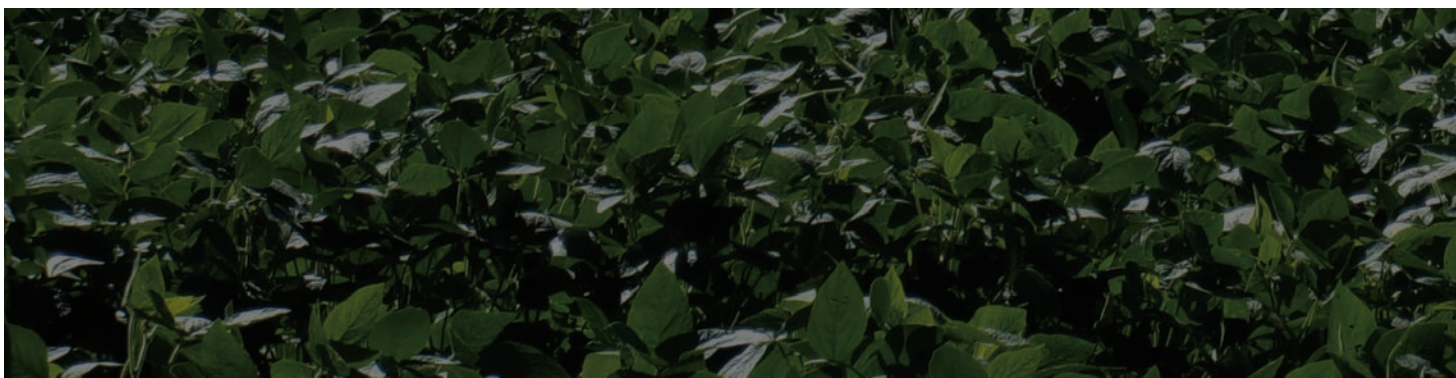
The socioenvironmental diagnosis of Querência is available at:
http://ipam.org.br/wp-content/uploads/2017/07/Diagnostico_final.pdf

The study “Use of geotechnology for spatial planning and monitoring of forest restoration in Degraded Permanent Preservation Areas (APPDs)” is available at:
http://www.icv.org.br/wp-content/uploads/2016/12/Monitoramento_APPDs_web.pdf

The “Environmental regularization of rural properties in Bahia” booklet is available at:
<http://aiba.org.br/wp-content/uploads/2016/11/cartilha-meio-ambiente-Aiba-2-edica-digital.pdf>

The folder “Environmental regularity of cotton processing industries” is available in:
<http://aiba.org.br/wp-content/uploads/2017/01/Manual-Algodoeira- Finished-Digital.pdf>

The folder “Solid waste management in rural properties” is available at:
<http://aiba.org.br/wp-content/uploads/2017/01/folder-residuos-publicacao-digital.pdf>



Solidaridad



the sustainable
trade initiative