

STORIES FROM THE GROUND



**COTTON
AT THE
SOURCE.**

A Growing Culture x Cotton Diaries

ACKNOWLEDGEMENTS

This series of stories features three incredible projects from around the world: In Benin, Organisation Béninoise pour la Promotion de l'Agriculture Biologique ([OBEPAB](#)), supported by Pesticide Action Network UK (PAN-UK); in Brazil, [Algodão em Consórcios Agroecológicos](#) by [Diaconia](#); and in India, Scaling regenerative and restorative agriculture practices by [Srijan](#). The projects in Brazil and India are both a part of Regenerative Production Landscape Collaborative ([RPLC](#)) programs. These stories were brought to life by a team of amazing journalists, photographers, writers, and project leads (listed below) and wouldn't have materialised without the invaluable cooperation of field agents, farmers, and their communities. This publication is part of a larger project entitled Cotton at the Source, which is a collaboration between Cotton Diaries and A Growing Culture. It would not have been possible without the support of Laudes Foundation.

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INTRODUCTION

BACKGROUND

Narratives about cotton have become narrow and simplistic. This booklet aims to showcase the power of community projects for sustainability professionals in the fashion industry. Simultaneously, it encourages media and storytellers to unlock impactful stories by shifting their perspective to view cotton in a broader landscape.

A collaboration between Cotton Diaries and A Growing Culture, the booklet is part of a larger project entitled Cotton at the Source, aimed at reframing narratives around cotton. Through these stories, we place farmers at the centre, acknowledge their expertise, and promote holistic storytelling. We collaborated with projects on-the-ground, farming communities, local reporters and photographers to produce this collection of stories addressing these issues, emphasising the transformative power of holistic narratives.

Cotton has indelibly shaped human history: It's central to stories of ancient civilisation, as well as slavery, colonisation, and early industrialisation. Even today, the sector is key to understanding sustainability and equity in ways that often go unrecognised: There are around [75 countries](#) and 24 million cotton growers* churning out [25 million tons](#) of cotton fibre on [30 million hectares](#). The industry plays a powerful role in the global economy – built on the labour of millions of small-scale farmers of the [Global Majority](#)*. To properly understand the fashion and textile industry, and the social and environmental issues around it, we have to grapple with cotton and the people who grow it.

Farming communities have, over millennia, developed and maintained agricultural systems that harmonise people and ecology. Today, there are current models of small-scale farmers and peasants building economic power while reviving their eroded landscapes. Within these community-centred models, farmers have a larger role in shaping what sustainability means. They grow cotton in ways that enhance their local sovereignty and retain wealth within their communities while restoring soil health, increasing biodiversity, sequestering carbon, and building water resilience.

Here we share three Stories From the Ground, set in Benin, Brazil, and India. Each of these stories highlight small-scale cotton communities that are finding success in adopting holistic, sustainable farming programmes.

These models, however promising, are not perfect. Nor can we expect them to be, because they exist as outliers within a complex and unjust landscape. No one solution is a panacea, and greater social transformation is needed, but the stories that follow demonstrate potential pathways forward, and provide examples of community-centred solutions and reporting.

*(ICAC Cotton Data Book, 2022, report behind paywall). Data varies on the number of farmers globally, likely due to factors such as worker statuses (e.g., seasonal or informal workers), under-representation of certain groups, familial involvement, etc.

INTRODUCTION

STORY SELECTION

The projects featured in the stories were chosen based on specific themes and geographical considerations.

Core themes include:

- The role of community-centred approaches in creating sustainable landscapes
- The intersection of food sovereignty and cotton
- The diversification of agricultural systems

We considered cotton-growing regions in the Majority World*, specifically India and Pakistan, East and West Africa, and Brazil. We mapped 17 projects working with local farmers' groups, and used a matrix to evaluate each against criteria including their location, partners, and the sustainability standards they had experienced.

**"Majority World", or the "Global Majority", refers to the countries often labelled as "developing", or more recently, "Global South", who in fact make up the majority of the world's population. The term highlights that the people belonging to these countries and communities make up the majority of the world's population, its diverse cultures, and knowledge systems.

"Minority World", or "Global Minority", refers to countries often labelled as "developed". This emphasises that while these countries have accumulated much power through colonial legacies to influence the rest of the world, in reality, they make up a minority of the world's population.

NOTE TO JOURNALISTS

If you are interested in covering any of the cotton projects featured in this booklet, please get in touch by emailing josh@agrowingculture.org, info@agrowingculture.org and marzia@cottondiaries.com with the subject line: “Media Request”. We are happy to make introductions. We’ve included the projects’ contacts below also.

Please also reach out if you’d like to get in touch with the journalists who were part of this project.

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A FARMER DRIVEN ORGANIC MOVEMENT

**AKLAMPA,
BENIN**



Featured Project

**Organisation Béninoise pour
la Promotion de l'Agriculture
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In Aklampa, a locality in Glazoué, central Benin, where chemical input-intensive cotton, or what is widely called ‘conventional’ cotton, reigns. It’s been almost thirty years since farmers decided to row against the tide by switching to organic cotton. Grouped together in self-governing and gender-sensitive cooperatives, these producers’ motivations for choosing organic are the same: to preserve their health and the environment, satisfy their families’ food needs, and save financial resources to improve their living conditions. Not everything is rosy. But their initiative has allowed them to adopt innovative farming techniques to counter their vulnerability.

“I was over the moon the day I purchased the plot. I couldn’t believe it, because, I never imagined that one day I would become the owner of a plot here in Aklampa.” Etienne, 55 years old, dressed in a bomba (a locally popular textile tunic in Benin), is ecstatic as he begins to share his experience with organic cotton. Through gestures, bursts of laughter, and a smile, his body language reveals a certain self-satisfaction. Fully immersed in his narrative, which he unravels with fervour, the short-statured man occasionally rises from the small dried tree trunk that serves as his seat. His state of mind speaks volumes in a community where acquiring a plot and building one’s own home signifies social success. Etienne’s life seemed to be a failure until about six years ago, when he embarked on a journey of organic cotton farming. After an initial unsuccessful experience with soybean farming, he turned to organic cotton under the supervision of Benin Organisation for the Promotion of Organic Agriculture, officially acronymed [OBEPAB](#) (Organisation Béninoise pour la Promotion de l’Agriculture Biologique, in French). Six years later, he is proud of his choice. “I was able to enrol my daughter in a hairdressing apprenticeship until she obtained her diploma. I bought my son a motorcycle, and financed his marriage. I was able to purchase a plot, and by the grace of God, I will build my house”, he enumerates. With assured steps, a joyful demeanour, and a proud stride, he points out the four boundary markers that delineate his 750-square-meter plot.

Alougba, a widow, also has a successful experience with organic cotton. With the income from cotton, she has built a two-room house where her small family, consisting of her son, a university graduate who has temporarily joined her for agricultural work, and her daughter-in-law, reside. The woman, in her sixties, shares that after the death of her husband, the money from cotton enabled her to finance her son’s university education.



CREATING AN ORGANIC INFRASTRUCTURE

“UNLIKE CONVENTIONAL PRODUCTION, WE HAVE NO CONCERNS WHEN CONSUMING FOOD CROPS GROWN IN FIELDS NEXT TO COTTON. WITH ORGANIC COTTON FARMING, OUR SOILS DO NOT DEplete AS QUICKLY. GONE ARE THE STRESSES WHERE WE MIGHT FACE HEALTH DAMAGE DUE TO MISHANDLING HERBICIDES OR PESTICIDES.”

— Nicaise

Etienne and Alougba are members of two different cooperatives, which, along with several others, make up the community of organic cotton producers in Aklampa, a rural district predominantly populated by farmers. Aklampa is located in Glazoué, a central commune in Benin, approximately 230 km from Cotonou, the country's main city. The people of Aklampa cultivate maize, cowpea, cassava, yam, peanuts, sesame, cotton, and soybean. Aklampa is connected to the city centre of Glazoué by an unpaved road. The thirty kilometers or so that separate the two places can be covered in around an hour on a motorcycle as compared to around two hours by car. It is also a place known for charcoal production, as evidenced by vans and trailers filled with bags of charcoal encountered along the Glazoué-Aklampa route, as well as piles of charcoal bags visible in the hamlets along the way.

OBEPAB introduced organic cotton production in Glazoué in the mid-1990s. The Aklampa district is the heart of organic cotton production in the commune (across the Aklampa district there are forty cooperatives spread across villages, including Kpodji Kiki, Lagbo, Agbagbadji, and Angoladji).

“Unlike conventional production, we have no concerns when consuming food crops grown in fields next to cotton. With organic cotton farming, our soils do not deplete as quickly. Gone are the stresses where we might face health damage due to mishandling herbicides or pesticides”, Nicaise testifies. Married to five women and father of fifteen children, he has been an organic cotton producer for about fifteen years and is the president of the Communal Union of Organic Cotton Producers in Glazoué.



Under the support of OBEPAB, Etienne, Alougba, Nicaise, and other organic farmers in Aklampa adopt agricultural practices that do not require synthetic chemical products at any stage of the agricultural production cycle. From land clearing to cotton harvesting, including seeding, weeding, and crop protection, farmers utilise various organic inputs for crop treatment and soil enrichment. “Palm kernel cake and compost are the organic fertilisers used by the producers. Neem aqueous extracts and food spray are used as organic pesticides. Others use a mixture consisting of cow dung, wood ash, and palm kernel cake”, Corneille Dassou, agronomist and field agent at OBEPAB, informs. Although the farmers source palm kernel cake from other providers throughout Benin, some prepare the palm kernel cakes themselves, in addition to the other inputs. The food spray used in the area is a watery extract from corn bran and sugar. It attracts beneficial insects, such as ants, bees, and wasps, into the fields, which in turn prey on cotton pests. Specific measures are taken after harvesting to prevent cotton contamination during transportation to the ginning factory located in the heart of Glazoué city.

Following a technical recommendation, OBEPAB field agents have limited the maximum area for organic cotton cultivation to 5 hectares per farmer for the past three years. The measure is justified by the difficulty farmers face in maintaining larger organic farms. “Since the area for organic cotton cultivation has been limited to 5 hectares, farm maintenance has become easier compared to when I used to cultivate up to 7 or 8 hectares”, Claver, a veteran farmer, master tailor, husband to two wives, and father to three children, says. “When the organic cotton field is too large, maintenance



becomes challenging, especially during the weeding period, which is done manually without herbicide. We have observed that the parts of the field weeded first are more productive than the other parts where weeds grow high before weeding. Sometimes, a section of the field gets so overrun by weeds that it produces nothing”, Bertin adds. He nevertheless expressed not being against the possibility for each farmer to cultivate lands according to their operational capacities.

Farmers practice crop rotation and intercropping to combine their productivity goals with the need to replenish the soil. In the crop rotation system, depleted soils are left fallow for an average of two to three years. During this period, they are used for the cultivation of pigeon peas (*cajanus cajan*). Paulin, a 70-year-old farmer who has been producing organic cotton for 17 years, explains his approach to crop rotation by drawing inspiration from the dietary habits of the local inhabitants. “Imagine, for a moment, that someone eats *Wô* (a cooked paste made from corn flour, which is a staple food in the area and throughout southern Benin) for breakfast, lunch and dinner. They will eventually become disgusted and feel uncomfortable. The same applies to the soil. If you plant a crop here today and plant another tomorrow, it benefits the soil and enriches it”, he illustrates. Women like Alougba grow vegetables and fruits such as okra in the cotton fields, which they harvest and cook for the sauce at home “without any concerns”.

WEAVING TOGETHER COTTON AND FOOD PRODUCTION

Organic cotton producers in Aklampa use organic farming practices to grow all their crops; be it cash or food crops. This is a requirement for being certified as an organic producer. The use of synthetic chemical inputs is strictly prohibited in the fields where crops such as soybean, corn, peanuts, and cowpeas are grown.

Farmers primarily cultivate food crops to meet their families' food needs, and secondarily for commercial purposes. They use two approaches. One involves estimating and storing a sufficient quantity of food to feed the family until the following harvest, while selling the surplus. The other consists of preserving the entire stock of food crops from the harvest for a family's consumption. Only at the beginning of the following season's harvest are the remaining stocks from the previous season taken out of the granaries and warehouses and then sold.



There are instances where the food stock may be over before the next harvest. These cases usually occur in two situations. First, when a producer, out of solidarity, uses his stock to assist another family member in need. Second, when the rains are delayed. The delay in rainfall results in a shift in the start of the agricultural season, as was the case this year when rainfall was still anticipated until the end of May. Within the Kpodji Kiki cooperative, when producers' food stock is over, they first turn to other members of the cooperative to purchase them. This ensures that they have access to organic food crops. In extreme cases, when they cannot find them within their cooperative, they have no choice but to source them from the general market. "When the stock of grains we have grown ourselves is exhausted, we use income from the sale of cotton or soybeans to purchase them. We manage this stock until the following food crop production", Nicaise, head of a family of about twenty members, states. "I cultivate 11 hectares, with 5 hectares for cotton, 2 hectares for maize, 1 hectare for peanuts, and the rest for soybeans. When maize is not enough for us, I use the revenue generated by the sale of soybeans and cotton to buy more. In case of illness, the money from cotton and soybeans is used to cover healthcare expenses", Dossou, who has been involved in organic farming for 14 years now, adds. The income from cash crops such as cotton and soybeans is also used to purchase other food items such as rice and pasta.



The members of various organic producer cooperatives in Aklampa insist that it is rare for them to deplete their own stocks of food crops, especially maize, from one season to the next. The region has two rainy seasons. The first goes from March/April to August. The second runs from September to November. Maize, the main cereal and staple food in the community, is grown twice a year during the rainy seasons. "We sow corn for the first rainy season as well as the second. Before the first season's stock runs out, the second season's crop is already available. It's mainly the second-season crop that we keep for a long time", Paulin explains. "Buying grains from the market is not common for me. Regardless of the situation, I never run out of maize and cassava. My stocks are always sufficient", Claver asserts. Father to three children, Claver specifies that he does not plan to stop having children anytime soon. The diversification of food crops and the economic power of cotton and soybeans allow producers to have a variety of food choices. Do children ever cry at home due to insufficient meals? "No", the producers emphasise. "What's the point of being a farmer if you can't meet the food needs of your family? It's a matter of honour", Nicaise adds.

The preservation of food products is also done without the use of rodent killers, insecticides, or other chemical products. Farmers say they rely on ancestral techniques to prevent mould, spoilage, or the destruction of their stocks by rodents. For example, after harvest, they store maize, still in husks, in granaries at the farm while they bring peanuts home. “When you occasionally light a gentle fire under the granary to warm it up, the maize doesn’t mould, and there is no pest attack, nothing happens to it”, Dossou shares. Then, Paulin adds, “The maize stored in the granary stays there for a while before being husked and brought home. For preservation at home, we use dried neem leaves that we mix with the maize before putting it in sacks. Even three months later, this maize still remains safe from the weevil [beetles’] attacks.”

For her part, to preserve maize at home, Alougba resorts to a technique inherited from her mother. “I use dried pepper that I grow myself. I have it ground in a mortar. I put this chilli pepper in a basin of water and soak the sacks to be used for storing the maize for two days. After that, the empty sacks are dried. Early in the morning, the maize flour is put into sacks. The sewn sacks of maize flour are placed on the floor on planks or pieces of wood. When I was young, my mother used this technique to preserve cowpeas.”

While food crops are primarily cultivated to feed the family, cotton serves a different purpose. “For us, organic cotton is like a bank that serves as savings and investment. For example, we also cultivate peanuts, sesame, etc., and the money earned is used to finance cotton production. As [the] cotton price is stable and does not fluctuate, cotton becomes a safe haven for farmers”, Paulin explains. The producers state that the cotton sector is well-structured, with government involvement that prevents volatility, and the revenues from cotton are received in a lump sum and not in small instalments, as could be the case for some food crops. The money from cotton allows farmers to buy land and motorcycles, build houses, get married, educate their children, and provide easy access to clean water through the construction of modern wells.

“WHAT’S THE POINT OF BEING A FARMER IF YOU CAN’T MEET THE FOOD NEEDS OF YOUR FAMILY? IT’S A MATTER OF HONOUR.”

— Nicaise





“FOR US, ORGANIC COTTON IS LIKE A BANK THAT SERVES AS SAVINGS AND INVESTMENT... COTTON PRICE IS STABLE AND DOES NOT FLUCTUATE, COTTON BECOMES A SAFE HAVEN FOR FARMERS.”

—Paulin

Some producers use a portion of the cotton money to diversify their income sources. The resources obtained from new income-generating activities are reinvested in cotton production and used to meet other family expenses. Pascal is an agricultural producer from the village of Lagbo. He has been practising organic farming for less than ten years. With the money from cotton, he built a corn mill in the district. He then joined a rotating savings and credit association, where he contributes 10,000 FCFA (US\$20 — the rate for currency conversion is US\$1 = 500 FCFA) per week as savings. In addition to cotton production, Claver is a master tailor. With the money earned from cotton, the “white gold”, he has improved his workshop capacity by acquiring more efficient sewing machines. Claver has two wives, one a tailor and the other a hairdresser. The tailor works with him in the old earthen house that serves as a sewing workshop, named “Alissa couture dit la joie”. Claver’s next project is to rebuild it, as he did a few years ago for the main building that houses the bedrooms of the family house.

During a focus group that brought together men and women producers from six different cooperatives, farmers were asked whether, considering the significance of cotton in their lives, they would cultivate more of it at the expense of food crops if

the 5-hectare restriction imposed by OBEPAB is lifted? “We don’t grow cotton on an empty stomach”, they almost unanimously replied. For them, even if the purchase price of cotton were to be multiplied by 5, they would not abandon food crop production. Among the ten or so participants, only one expressed a contrary opinion, stating that in such a scenario, he would exclusively produce cotton and use the income to buy food crops. His remarks elicited mockery and protests from the audience. According to the other participants, only a “free-loader”, a term used to describe a single person without children and any family responsibilities in, could afford such a “suicidal” option. The majority leans towards balance: “Producing food crops for sustenance and cotton for earning money.” Pascal refers to the case of a farmer, whom he considers a veteran of cotton production in the locality, to support this majority position. “I know a cotton producer; he started growing cotton before I became an adult. I even worked as a labourer on his farm. He only produces cotton. He doesn’t grow maize or cassava. But in return, he spends a lot on buying food, especially maize. Until now, he hasn’t managed to build a single house. I won’t produce cotton like that”, he shares.

“WE DON’T GROW COTTON ON AN EMPTY STOMACH.”



BUILDING FARM-LEVEL DEMOCRACY THROUGH COOPERATIVES



Farmers are grouped together in cooperatives. It is through these cooperatives that OBEPAB provides them with seeds and other inputs they do not produce themselves. The board of directors and the oversight committee are the cooperative's governing bodies, and their members are elected in general assembly meetings. The number of members per body depends on the size of the cooperative. However, regardless of the size, there are mandatory positions to be filled — namely President, Secretary, and Treasurer for the Board of Directors, and President, Secretary, and Reporter for the oversight committee. Leaders gain legitimacy through both elections and expertise. Factors such as a producer's experience, the size of their production and their moral standing influence the choices made during elections. Nicaise, who presides over the Municipal Union of Organic Cotton Producers in Glazoué, explains, "We choose someone who is knowledgeable about organic cotton production, someone who cultivates a significant amount of cotton and understands its intricacies. If we elect someone who doesn't truly understand organic cotton production, they won't be able to help other members overcome their difficulties." A producer mentioned that a cooperative president who cultivates only one hectare of land would have less legitimacy in their eyes compared to ordinary members who cultivate much more.

In addition to OBEPAB field agents, within the cooperatives, the oversight committee ensures that each member producer adheres to organic standards. Kpodji Kiki cooperative, where some members have been engaged in organic cotton production for nearly 20 years, has a three-member oversight committee. They conduct unforeseen visits to members' fields to monitor compliance with organic farming requirements, including the non-use of synthetic chemical inputs.

In this cooperative, producers also support each other in major agricultural tasks through "Assogbê", a form of work-based

mutual assistance and community solidarity. This practice involves cooperative members taking turns working in each other's fields as needed. The "Assogbê" is not limited to organic cotton; it applies to all other crops cultivated by cooperative members and encompasses various operations such as ploughing, planting, and harvesting; depending on the member's needs. Each participant is responsible for their own transportation to the "Assogbê", while the host ensures the provision of meals for the workers.

Not all cooperatives practice "Assogbê". In the village of Lagbo, the cooperative has a community farm where all members periodically gather for work. The revenues generated from this community organic cotton farm are kept in the cooperative's common fund. This fund is used to provide "assistance loans" to members facing unforeseen personal or family events. "If something happens to a member and he can't afford it, the cooperative comes to his rescue by lending him money from the community field fund. He or she can pay it back later", Claver emphasises. In Kpodji Kiki, there is no community farm. But, an internal support network/initiative exists to assist members experiencing both joyful and challenging events. "Within our cooperative, we have our 'noudjêmindjigbê', a solidarity mutual, of which not all cooperative members are systematically beneficiaries. You have to subscribe to benefit from the advantages of the mutual. If you are a member of this mutual and something happens to you, you can get some assistance", Nicaise informs.

Cooperatives also serve as intermediaries between decentralised financial systems and producers, providing them access to agricultural credit. Loans are granted to individual producers who request them, but the cooperatives are consulted to attest to the good standing of the farmers during the loan allocation process.



Another ground for the expression of democracy and agency through cooperatives is the resolution of conflicts between transhumant herders and farmers. This is a major problem in Benin, resulting in deaths and property damage. Farmers in Aklampa also suffer from the damage caused by grazing cattle. During our stay in the community, Nicaise had to miss the focus group because his food crops were devastated by cattle the day before. Some cooperatives are involved in preventing and managing such cases by documenting the incidents and supporting affected farmers in the complaint process with local authorities and the police. Prevention efforts mainly focus on informing local herders about upcoming agricultural activities and specific areas designated for cultivation.

Cooperatives get involved in solving problems in their community. They are called upon to resolve specific issues related to schools, access to water, or even road infrastructure. For instance, a few years ago in Lagbo, the public primary school faced a shortage of teachers. In such circumstances, the community would hire a temporary teacher, and the cooperative was among the groups that contributed funds to pay the teacher's salary for the entire school year.

In Kpodji Kiki, in addition to contributing to the salary of the temporary teacher, the cooperative recently financed the repair of the pump that supplies the community with potable water. Here, farmers provided many other examples of their involvement in community empowerment.

“During the rainy season, the access roads to the village become impassable. We contribute to the repair of the roads. For instance, the cooperative can take food expenses in charge to support the young people who mobilise for such community improvement projects”, Dossou from Kpodji Kiki says. “We also contributed to the construction of the public elementary school. We donated money to backfill the classrooms, and provided food to the workers”, he adds.

The choice to practice organic farming is free and independent of any pressure. When a producer adopts organic farming, they join a cooperative and must therefore, adhere not only to organic production standards but also to the cooperative's operating rules. An example is the regulation on the land area that can be cultivated for organic cotton. Cotton seeds are provided to the producers by OBEPAB, while producers themselves generate their own seed supply for food crops.

In reality, organic agriculture, in the broadest sense of the term, is not new in Aklampa. “Our ancestors have always practised agriculture in this way, without using chemical products. In fact, this is one of the reasons why they had robust health and lived long”, Paulin asserts. The 70-year-old farmer recalls seeing his parents weeding the fields and letting the weeds decompose to fertilise soils. Nicaise reminds us that the technique of periodically heating the granary with a gentle fire to prevent mould in stored corn is inherited from the elders. “Our parents had many techniques. For some, we have simply changed the method and approach to improve and adapt to current realities”, he explains. And one of the current realities is the set of requirements to fulfil continuously, in order to be certified as an organic producer.

Local OBEPAB field agents emphasise that particular attention is given to the availability within the community of natural resources required for the application of new or adapted farming techniques. Emmanuel Dossoumou, the oldest and most experienced OBEPAB field agent in the community, stresses that producers are guided according to the logic of empowerment and knowledge transfer. He gives three concrete examples: the organisation of revenue distribution by the cooperatives themselves, the monitoring of the ginning process at the factory and the monitoring of organic farms through peer support (oversight committee) within the cooperatives.



THE “ORGANIC” POWER OF WOMEN

The organic dynamic in Aklampa is no exception to the winds of women’s empowerment that have been blowing through Benin in recent years. “Organic cotton should also be a women’s affair”, Alougba, the president of a cooperative of organic producers, declares. Nearly half of the members of her cooperative, based in Lagbo village, are women. Some women cotton producers assist their husbands, while others cultivate their own cotton fields along with organic food crops. In other regions of Benin, such as Dassa, women engage in land ploughing, but in Glazoué, they do not. The labour-intensive hoeing is deemed physically demanding, and men prefer to spare their wives from such tasks. All the men and women interviewed emphasise that “It has been like this since the time of our ancestors.” Thus, there is a division of labour. While men participate in all tasks, women are more active during sowing, weeding, harvesting, and providing meals to workers throughout the farming season.

**“ORGANIC COTTON
SHOULD ALSO BE A
WOMEN’S AFFAIR.”**

—Alougba



Within a household, when a woman decides to cultivate her own field, for operations that she finds challenging to execute, she seeks assistance from her husband or hires labourers. “Last year, I sought my husband’s help for ploughing. He made his labourers available, and they ploughed half a hectare for me. I hired labourers to do the other half”, Alphonsine from the Agbagbadji cooperative testifies. “My husband would make his labourers available on Sundays to plough my cotton field”, the younger Rolande from the same cooperative shares. While all organic cotton farmers acknowledge it is difficult and demanding, women emphasise that it is even more challenging due to their reliance on men for major tasks like clearing and ploughing. “Cotton farming is even more difficult for women. We cannot plough, and it takes a long time to find labourers”, Alphonsine insists. Despite these difficulties, in addition to small-scale trade and food crops, women’s cotton production reinforces their empowerment. With the income from cotton sale, they meet their own needs and contribute financially to the household. “I use the cotton money to finance my children’s education and support my husband in household expenses”, Philomène says proudly. She is the organiser of the Kpodji Kiki cooperative.

In the household, decisions are not unilaterally made by one spouse. According to the interviewees, this is beneficial for peace and harmony at home. “At my level, I propose a yearly agricultural plan with clear objectives. I present it to my wife and seek her opinion. My wife doesn’t engage in land clearance and ploughing. In the field, she mainly helps with sowing, weeding, harvesting, and preparing meals for workers”, Claver shares. Consultation and discussion are also prerequisites for consensus decisions. According to testimonies from both men and women, women’s opinions matter in the use of cotton income. They are generally considered good advisers. “Last year, my plan was to buy a second motorcycle with the money from cotton. But my wife convinced me to use it instead for building our house. The money was then used to make bricks”, Sylvain says. In certain cases, women may have veto power over matters of vital importance to the family. For example, during the focus group, when Jean from the Angoladji cooperative expressed that he would be willing to sacrifice food crops for cotton in the event of a significant increase in cotton prices, participants pointed out that he would not be able to make that argument in the presence of his wife, as she has a decisive opinion on matters related to household food security.



All of this is part of a national context of evolving women's rights, as highlighted by Alougba, who has witnessed different changes on the subject throughout her six decades. She argues that men should no longer decide on behalf of their wives what to do with their organic cotton funds.

"[Benin President] Patrice Talon has already forbidden men to oppress their wives and claim their rights. Such practices are outdated. Men should have their own sources of income, and women should have theirs. Previously, when a woman engaged in economic activities, her husband could seize the financial resources she generated. All of that has changed. If your wife engages in income-generating activities and you use your power to take away her resources, Talon will come after you to send you to justice", Alougba elaborates, referring to laws enacted under the government of President Patrice Talon to strengthen women's rights and legal protection, particularly against gender-based violence.

Still, limitations regarding women's involvement in decision-making bodies are a challenge in Benin. It is a stubborn national reality. To get things moving, in 2019, amendments were made to the constitution and electoral code to increase women's representation in parliament. Henceforth, of the total 109 seats in the National Assembly, a quota of 24 seats is dedicated exclusively to women, at the rate of one seat per electoral district. These new provisions have been applied to the January 2023 legislative elections.



In Aklampa, even before this national political reform, through awareness actions, OBEPAB has changed the dynamics in organic farmers' associations. Women are now elected to cooperative leadership positions. Every cooperative with women among its members must elect at least one woman to its leadership board. In some cases, women are represented in both the board of directors and the oversight committee, while in other cases, they are represented in one of these bodies. In her cooperative where she holds the position of organiser, Philomène handles logistics and catering during cooperative meetings or the work-based mutual assistance ("Assogbê"). "When we have gatherings, meetings, I prepare the meeting venue, and I also mobilise women for collective work", she explains. Alougba asserts that cooperatives are better off when they include women. She assures that in the cooperative she leads, decisions are made in a participatory manner. "Just because I am the president doesn't mean I make all the decisions alone. All perspectives are heard. Everyone can suggest ideas for improvement. There are very good processes within the cooperative", she shares.

CHALLENGES AND PROFITABILITY

Organic cotton farmers have to be very cautious in taking appropriate measures to not lose their certification status. All producers interviewed in Aklampa acknowledge that organic farming is more demanding than conventional farming, despite recognising its health and environmental benefits. A local technical agent pointed out that the time and labour needed for growing organic cotton exceed those of conventional cotton, but, when managed correctly, organic cotton can be more profitable. This observation prompts questions about the “immediate” economic profitability of organic cotton compared to conventional.

A scientific paper, dated October 2018, analysing the determinants of profitability for conventional and organic cotton in Benin, including Aklampa, reveals that “organic cotton offers the best financial performance thanks to low production costs and the organic premium, which more than compensates for yield losses.” Co-authored by Professor Dansinou Silvere Tovignan and other researchers from the University of Parakou (Benin), the Benin National Institute for Agricultural Research (INRAB), and the Research Institute of

Organic Agriculture (FiBL), Switzerland, the paper specifies that the profitability of cotton, whether conventional or organic, is influenced by institutional, socio-demographic, economic, and technical factors. These factors include the intensity of supervision, agricultural credit availability, following practices, and the number of labourers. Additionally, as some Aklampa farmers recall, profitability is linked to yield, dependent on factors such as soil fertility, climatic conditions, farm maintenance, and other inputs. Based on household surveys they carried out in 2018, 2019 and 2021, OBEPAB assures that organic farmers earn more than conventional farmers. OBEPAB argues that input costs are high for conventional farmers, as pesticides and fertilisers consume a significant portion of their budget, while organic farmers utilise household and community labour, and locally available materials to fertilise crops and manage pests.





The main difficulty identified by farmers around organic cotton growing has to do with clearing and weeding. Unlike conventional cotton farmers who can use herbicides, those practising organic farming rely solely on manual tools such as hoes and machetes. Faced with this reality, organic farmers say they do not wait for the weeds to grow too large before weeding. Depending on the size of the cotton field, they seek the assistance of labourers. The cost of labour ranges from 40 FCFA (US\$0.8) to 50 FCFA (US\$0.9) per 20-metre row. For planting, some labourers charge 15 FCFA per row or 25 FCFA for every 2 rows, amounting to 9,000 FCFA (US\$18) per hectare. For harvesting, labourers demand up to 100 FCFA per cotton plant. As Michel, an organic cotton farmer, lists the expenses associated with cotton production, he includes the fees for labourers and workers, as well as the cost of land lease for one hectare, which ranges from 30,000 (US\$60) to 40,000 FCFA (US\$80) per year.

Labourers are adults from the local area or people from other regions of the country. In some cases, their involvement goes beyond paid task work. Some become seasonal agricultural labourers. They are accommodated and provided meals by the producers. They work on land clearing, ploughing, planting, weeding, monitoring, and harvesting. At the end of the farming season, they are compensated either in cash or in-kind (through goods and/or services). As for in-kind compensation, it is common for the seasonal employer to purchase a motorcycle for them. This practice is the same for organic and conventional producers.

In Aklampa, both organic and conventional cotton is cultivated, with the latter being more widely grown. The coexistence of these two types of crops, in such a context, exposes them to some vulnerabilities that can affect production quality, as highlighted by various stakeholders. One significant concern is the migration of pests, with the risk that any poorly maintained field, be it for cotton or food crops, can result in harmful impacts on the surrounding fields.

When a conventional cotton farmer uses pesticides, the nearby organic cotton farmer must also treat their field with aqueous extracts and essential oils, and vice versa. This precaution is taken to prevent pests driven out of a cotton field treated with a particular product from seeking refuge in the other field and returning to the initial field once the product's effects have diminished. The local coordinator of the Interprofessional Cotton Association in Benin (AIC) emphasises that if both types of producers neglect recommended technical practices and advice, they become a threat to each other. Besides, in an environment where food crops and cotton share pests, a poorly maintained cowpea field, for instance, can become a breeding ground for rodents that may then invade nearby cotton fields, whether organic or conventional.

Addressing this shared vulnerability involves two challenges. The first is the strict adherence to the recommended technical practices by the producers and the rigorous monitoring by the field agents. The second challenge is the interaction between field agents of organic and conventional production to ensure that no producer is lagging behind in maintaining their farm, especially in areas of coexistence. Farmers supported by OBEPAB employ various techniques to



keep pest numbers low, including promoting the natural enemies of pests. These techniques form the basis of integrated pest management and are deemed more cost-effective than using chemical pesticides as the primary option, according to Professor Simplicie Davo Vodouhè, coordinator of OBEPAB.

Apart from the migration of pests, another issue is the contamination of organic cotton fields by the chemicals used in neighbouring conventional (cotton) farms. As a protective measure for the organic field, producers agree to maintain a distance of at least 20 metres between the two fields. Within this space, producers can cultivate pigeon pea (*cajanus cajan*), cassava, sorghum, or leave it unused. That is why, explains Nicaise, an organic cotton producer for around fifteen years, the decision to practice organic farming involves an important step in selecting suitable land, ensuring that the area where organic cultivation is intended is not downstream from a conventional cotton field. When an organic cotton field is located downstream, the producer must plough perpendicular to the slope to prevent water runoff from carrying chemical particles from the conventional field to the organic field during rainfall.

FARMER-TO-FARMER KNOWLEDGE EXCHANGE

Capitalising on organic farming practices and passing them on to less experienced farmers is a subject of great interest to some. “You never finish learning. You can master an activity and still need assistance to succeed”, Claver says. An organic farmer for 8 years, he saw his father go organic and decided to follow in his footsteps after his passing.

To enable best practices and knowledge transfer among producers, OBEPAB organises farmer training schools, providing an opportunity for sharing experiences and best practices among veteran and young organic producers across cooperatives. Sylvain, a new organic cotton producer, shared his experience with the farmer training school: “The seasoned producers were present, as well as new producers from other cooperatives. Each person explained how they carried out various operations, and we shared what we learned from them. From last year’s farmer training school, I learned a lot about assessing soil fertility, pest control and attracting beneficial insects.”



While noting the risks of a breakdown in the transfer of knowledge between generations, Sylvain insists on the need for him to continue to benefit from training and coaching. “Some of the first growers to gain experience in organic farming have passed away, while others have grown old. I joined organic farming last year. In the absence of more experienced people to advise me, you can understand how difficult it will be for me to master it and move forward”, he shares.

Farming is not Sylvain’s original occupation. He’s a vulcaniser, working to repair tires — a trade his father recommended. “I was born to farming parents. From an early age, my father thought that it wasn’t right for all his children to become farmers. That’s how I learned to vulcanise. But this profession didn’t allow me to achieve my socio-economic goals. So I decided to go back to farming”, the master vulcaniser says. His workshop is located at one of Aklampa’s main crossroads. When he’s needed in his field, he entrusts his workshop to his apprentices.

Last season, the newly certified organic producer planted 2 hectares of cotton. On his wife’s advice, the proceeds were used to make bricks. The next step for the couple is to build their new house. In Aklampa, agriculture is weather-dependent and rainfed. When Mother Nature delays her downpour from the sky, farmers must also suffer the pain of postponing the realisation of their aspirations. Sylvain, who is well aware of



this, fears that he may be forced to postpone the completion of his real estate project. “Last year at this time (end of May), we had already planted the first seedlings. But this year, at the same time, we’re still waiting for the rains. So our planning has fallen through”, he laments, his face less radiant than when he recalled his successes of the previous season.

Yet, Sylvain has a clear idea of his ambitions. “One always looks to evolve in everything he does. My hope is that, in 5 years’ time, organic cotton will enable me to achieve great things and become a reference in the community”, he confides. To achieve this, Sylvain is already planning to plant more land with organic cotton. “My aim is to increase my area this year, to do more than last year”, he says. “But without the rains, we can’t do anything. Man proposes, God disposes”, he adds.

“MY HOPE IS THAT, IN 5 YEARS’ TIME, ORGANIC COTTON WILL ENABLE ME TO ACHIEVE GREAT THINGS AND BECOME A REFERENCE IN THE COMMUNITY.”

— Sylvain

REVIVING COTTON FROM THE GROUND UP

NORTHEAST BRAZIL



Featured Project

**Algodão em Consórcios
Agroecológicos by Diaconia**

Photojournalist

Fellipe Abreu

Writer

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Photo/videographer

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Every year, the challenge is the same. During the so-called winter period, between February and May, the sky floods the earth with water. For the rest of the year, a relentless drought takes hold, withering the plants, causing the earth to crack, and forcing its residents to grapple with nature to survive. “In dry weather, production is zero. Zero”, laments farmer Joana Darck, resident of Sertânia - PE in the rural area of Pernambuco.

The Northeast of Brazil, a macro-region of over 386,000 square miles (18 percent of the entire territory of the country) is characterised by its wide rainfall variation, in which 80 percent of it is concentrated in just four months. In the eight months that remain, fauna, flora, and man must learn to live under a total rainfall of 150 to 200 millimeters — in the driest regions, rainfall can be limited to less than 60 millimeters.

It has not been easy. The rural areas of the semiarid region are home to some of the most fragile pockets of poverty in Brazil. While the communities in this region represent just over 5 percent of the Brazilian population, they make up 31 percent of the country’s extreme poor. The region’s population of 27 million is larger than the population of Portugal, Israel, or Azerbaijan, and it depends almost exclusively on the land for living and eating.

Without a single cloud on the horizon and under an inclement sun that reaches maximum temperatures of 95°F, Joana Darck looks outside her house and smiles



— thanks to the new activity she has incorporated into her routine. When she is not working the land or lovingly caring for her three children and husband, she walks 500 feet, sits down, and is silent before what she sees. “It’s like watching a miracle happen”, she says, moved. The “miracle” is her irrigated field, a technology that defies the conventional constraints of water scarcity and works together with nature to generate life.

Joana Darck’s total irrigated area is 1.2 acres, formed in six hydraulically independent irrigation sectors. The technology she has employed is dripping by tube well, capable of delivering a flow of 2,800 litres per hour and guaranteeing a daily workday of 6 hours and 30 minutes. “With this system, I’m sure I will be able to produce. I had no way of doing that, but now I see this dream come true”, she says.

Joana’s dream started 20 years ago, when she was a teenager working on the family’s farm. It would only begin to take shape in 2010, when Joana took part in the foundation of the Pajeú Agroecological Association (ASAP/PE) and was introduced to a universe of new possibilities.

**“IN DRY WEATHER,
PRODUCTION IS ZERO.
ZERO.”**

—Joana Darck

BRAZIL'S COTTON HISTORY

When Brazil was still a Portuguese colony, the region was occupied with portions of monoculture crops. Starting in the second half of the 18th century, the first generations of farmers invested in species native to the new continent, such as manioc, corn, and beans. And it worked.

The agronomic characteristics of cotton, especially its high degree of adaptability to the climate, facilitated its successful cultivation in the semiarid region. The crop established itself as the main alternative for family farmers. This was due to the consolidation of cotton as the main raw material for the textile industry — and it was, for two centuries, the most profitable alternative to subsistence crops in drought areas of the Northeast.

Brazil entered the 20th century with the broad problem of agrarian exclusion. In the far corners of the country, there was no land titling for family farmers, who were often hounded by the economic and political power of large landowners. The common practice at the time was to promote itinerant farming (moving from plot to plot), since it was not possible to obtain land ownership, and also because of the wear and tear on the soil caused by poor land management.

Still, it was a successful model. “In my parents’ time, working with cotton was profitable”, Joana recalls. “I wanted to work with that too.” But in the 1980s, the system collapsed. Cotton productivity in the semiarid region melted away — there was a perfect storm of soil degradation, record drought,

and the spread of the boll weevil pest (the popular term for the *Anthonomus grandis* beetle, the most aggressive predator of cotton plants). The next two decades consolidated the crisis once and for all: from over 6 million acres in 1975, cotton production shrank to just over 450,000 in 1998 — a 92.5 percent loss.

The once cotton-laden fields became mere memories for Joana and many other farmers of her generation. The sparse attempts to revive them ran up against the poor quality of the soil, depleted by centuries of monoculture farming, and heavy dependency on the intensive use of pesticides, which raises the cost of production and further sickens the land. “I myself didn’t even plant cotton 20 years ago. It was just corn and beans, in a monoculture logic”, Joana recalls.

The climate crisis has further narrowed the possibilities for agriculture in the semiarid region, creating fear of an apocalyptic future in which conditions for food production are lacking, water is scarce, and the planet has heated up to the point of making human life unviable. Environmentalists, farmers, agronomists, engineers, and many other professionals are engaged in the search for sustainable alternatives. Agroecology is one of them, and the Brazilian semiarid has been the setting for one of its most successful experiments.



AGROECOLOGY EMERGES

The introduction of agroecology in the Brazilian semiarid region reverses a trend that had prevailed for centuries. In the early 1990s, farmers tested the first agroecological models in the Ceará municipality of Tauá, under the guidance of the non-governmental organisation Esplar, which collaborated to sell the first harvest of agroecological cotton to Greenpeace. In 2004, Frenchmen Sébastien Kopp and François Ghislain Morillion also secured the purchase of agroecological cotton for the production of VEJA brand sneakers. The model proved to be environmentally, socially, and economically viable. 30 years later, it would be reproduced in cities in all nine states within the Northeast region.

The first expansion phase started in 2008, in partnership with the Dom Helder Câmara Project from the Ministry of Agrarian Development, in partnership with the International Fund for Agricultural Development (IFAD), which incorporated agroecological intercropping and allied cropping techniques into the knowledge framework of the Esplar Research and Advisory Center and the

Brazilian Agricultural Research Corporation (Embrapa). It was then that the technical and financial support for the incorporation of agroecology reached the community of rural farmers in the Pajeú backlands in Pernambuco — an area that is home to 315,000 inhabitants (115,000 of them in rural areas) in a total of 17 municipalities, within a territory of 5,000 square miles.

Most farmers turned their noses up at the novelty. The few who paid attention were viewed with mistrust. “We were called crazy”, Joana laughs. The “crazy ones” were a group of about 20 farmers. Together, they founded the Associação Agroecológica do Pajeú (ASAP/PE) to facilitate the participatory organic certification. “I was the first president. Nobody wanted to, right?” Claudevan Santos remembers, also laughing. “They put me there to take over, and then I went to Brasília several times; I held meetings at the Ministry of Agriculture to understand how the PGSs worked”, he says. PGS stands for Participative Guarantee Systems, a social method of quality control on farms in order to issue organic certification. Participative Organisations for Conformity Assessment (OPACs, in the Portuguese acronym) are legal structures within which the PGSs operate.

Currently, there are seven formalised OPACs:

APASPI/PI

Associação de Produtores Agroecológicos do Semiárido do Piauí
[Association of Agroecological Producers of the Piauí Semiarid]

ASAP/PE

Associação Agroecológica do Pajeú
[Pajeú Agroecological Association]

ACOPASA/RN

Associação de Certificação Orgânica Participativa do Sertão do Apodi
[Apodi Backlands Participatory Organic Certification Association]

ECOARARIPE/PE

Associação de Agricultores e Agricultores Agroecológicos do Araripe
[Araripe Farmers and Agroecological Farmers Association]

ACEPAC/PB

Associação Agroecológica de Certificação Participativa do Cariri Paraibano
[Paraíba Cariri Agroecological Participatory Certification Association]

FLOR DE CARAIBEIRA

Associação de Certificação Orgânica Participativa Flor de Caraipeira
[Flor da Caribeira Association of Participatory Organic Certification]

ACOPASE/SE

Associação de Certificação Orgânica Participativa de Agricultores e Agricultoras do Alto Sertão de Sergipe
[Association of Participatory Organic Certification for Farmers of the Sergipe High Backlands]

It took two years for the farmers of the Pajeú backlands to get their participatory organic certification process confirmed on the accredited list of the Ministry of Agriculture, Cattle and Supplying. But although it seemed that the farmers' efforts to recover the cotton crop and make the transition from a traditional model to an agroecological one were successful, they ran into an unforeseeable setback. The farmers' biggest concern made its appearance: drought. Between 2012-2018, the semiarid region recorded the worst drought since the beginning of the National Institute of Meteorology's measurements (Inmet, in the Portuguese acronym). In those six years, it rained less than a third of what was predicted, and 80 percent of the cities that make up the semiarid region declared a state of emergency. "It was a very difficult period. We produced very little and lost our accreditation", recalls Claudevan.



AN AGRICULTURAL REVOLUTION



In 2018, the return of rainfall to historical standards in the semiarid brought with it hope for farmers. “It was the beginning of the comeback that would lead to a very big advance”, says Claudevan. August of that year became the milestone of a revolution: the Cotton in Agroecological Consortia Project was born.

The initiative began operating under the coordination of Diaconia, a Christian-inspired non-profit social organisation which operates in urban and rural regions of Brazilian Northeast, with the mission of promoting social transformation from the ground up. The financial support comes from Laudes Foundation, the Inter-American Foundation (IAF), and FIDA/AKSAAM/UFV/IPPDS/FUNARBE. The project is part of the Regenerative Production Landscape Collaborative ([RLPC](#)) in Brazil.

Diaconia offers farmers technical assistance to establish consortia and guide the transition to agroecology. The organisation lends its support in not only setting up and sustaining farmers’ associations, but also creating new market opportunities for farmers. Diaconia also takes on the role of facilitator, easing farmers’ access to essential financial resources.

Claudevan remembers that one of the first steps of the partnership with Diaconia was a series of conversations and meetings where producers shared their experiences and challenges. Farmers expressed that there was a shortage of good cotton seeds, so the Project prioritised sourcing them: it provided families with native and organic

seeds and invested in the creation and strengthening of seed banks. At the end of that year, the Project’s total seed contribution was 5 tons of cotton, 1.2 tons of corn, and 95 pounds of sesame.

The Project reached the end of 2022 with the participation of more than 1,300 farming families, of which almost two-thirds are capable of producing cotton in agroecological consortia (see page 59 for more information), and with participatory organic certification. But perhaps the most significant results were the personal, social, and community development of the producers involved.

CONSORTIA

“Consortia” refers to a type of agroecological practice where multiple plant species are intentionally cultivated together in the same field. The goal of a consortia approach is to create a synergistic and mutually beneficial interaction among the different crops involved in order to enhance biodiversity, improve crop yield, manage pests and diseases, optimise nutrient cycling, and promote ecological resilience.

The species chosen for a consortia are selected based on their ability to complement and support each other’s growth and health. For example, certain plants may have deep roots that help improve soil structure and nutrient uptake, while others may provide shade, fix nitrogen, or repel specific pests.

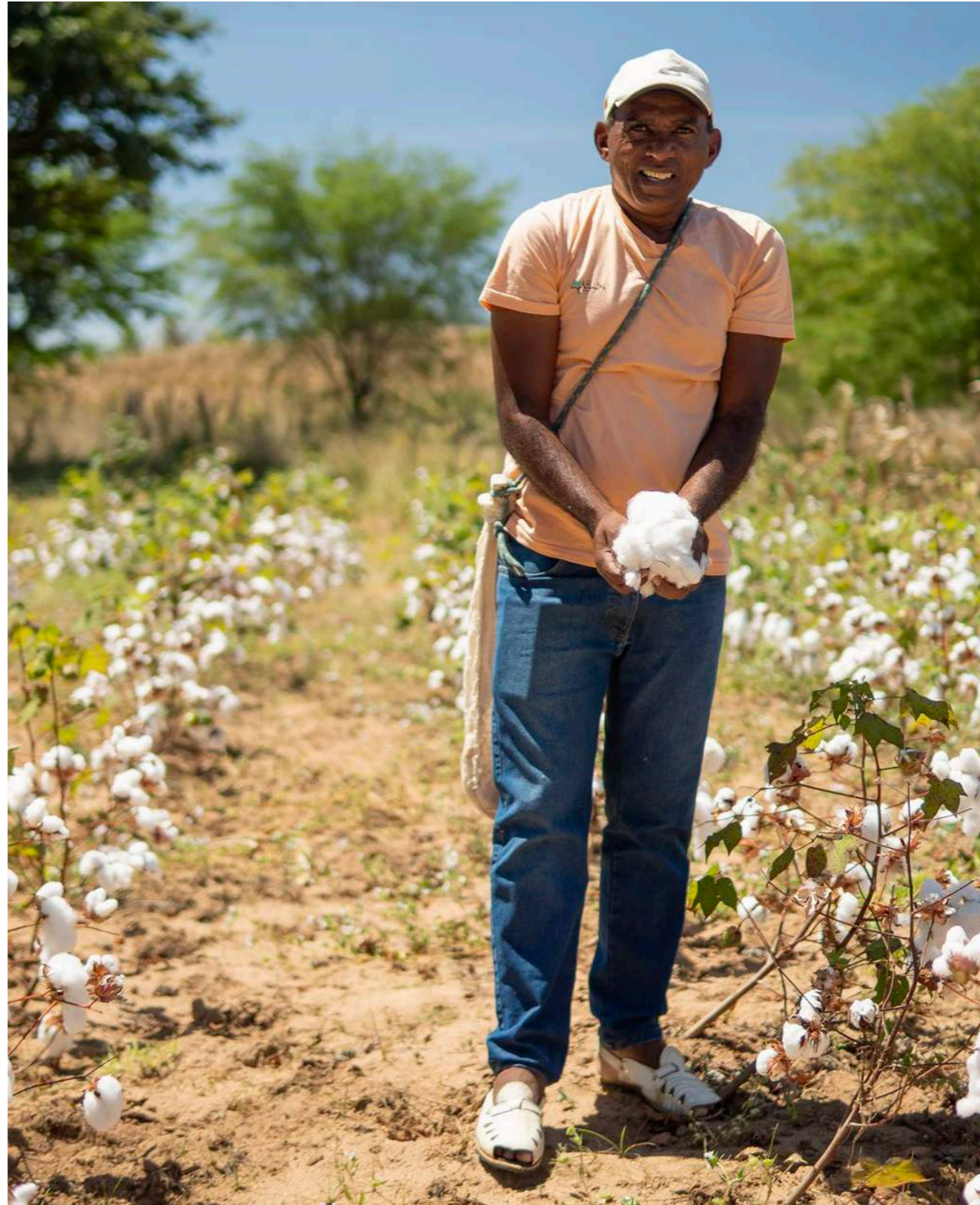
Consortia farming can be seen as an alternative to monoculture, where a single crop is grown in a given area. By diversifying the plant species within a field, farmers can reduce the risk of crop failure due to pests or adverse weather conditions. Additionally, the practice can contribute to sustainable land use and more resilient and productive agricultural systems.



THE NEED FOR AGRARIAN REFORM

The problem of unequal land distribution in Brazil is at the root of the country's development challenges. According to the National Institute of Colonisation and Agrarian Reform (INCRA), there are a little over 6.5 million rural properties registered in the whole Brazilian territory. The Gini land index measures the degree of land concentration: a scenario of equality, where everyone has the same amount of land, is expressed by the value zero; the opposite extreme, when a single person owns everything, is expressed by the value one. Essentially, the closer the value of the Gini coefficient is to one, the more unequally land is distributed in the region. Brazil has a Gini coefficient of 0.73 — the average is even worse in the states where the large landowners are located, such as in the Midwest (where the Cerrado is predominant) and in the Northeast (where the semiarid region is located).

Since the beginning of the last century, Brazilian peasant organisations have mobilised to demand concrete actions for agrarian reform. In the face of political instability, these movements were sometimes recognised by public authorities and sometimes forcibly repressed, especially during periods of military dictatorships. Over the last of these dictatorships, which ended in 1985, the largest of these peasant organisations managed to mobilise on a national scale. They grew into Movimento dos Trabalhadores Rurais Sem Terra (MST), or the Landless Workers' Movement. In a move articulated by the MST, 120 families occupied a strip of land on the margins of the Serrinha Dam in the municipality of Serra Talhada. There, they founded the Virgulino Ferreira settlement. "The MST is one of the many ways for people to get land", says Claudevan, one of the settlers from that mobilisation, and today the director of the rural worker's union in the city.



"It was all unproductive land here", he says. "And now we produce in the settlement corn, beans, tomatoes, onions, melons, watermelons... And we can say that it is 100 percent organic", he says proudly. All these crops are the result of the cotton in agroecological consortia model. Four years after the establishment of the settlement, the rural workers got a loan from Banco do Nordeste and purchased the property. The legal security of land titling has attracted new and former residents to return to farming.

"IT WAS ALL UNPRODUCTIVE LAND HERE. AND NOW WE PRODUCE IN THE SETTLEMENT CORN, BEANS, TOMATOES, ONIONS, MELONS, WATERMELONS... AND WE CAN SAY THAT IT IS 100 PERCENT ORGANIC."

—Claudevan Santos

BUILDING A COMMUNITY-LED ORGANIC SYSTEM



“It has to be a collective effort. If one makes a mistake, we all make the same mistake”, says Claudevan. The idea of collectivity resonates like a mantra among all the agroecological associations — which are organised in associative community models that meet the specificities of the Participatory Guarantee System (PGS).

Certification for organic products requires a complex process of investigation and observation of farm practices. Hiring a consulting company for certification costs much more than family farmers can afford. The alternative offered by the Ministry of Agriculture is the PGS, in which producers themselves evaluate their peers.

The first two pillars of the PGS are the establishment of social control and joint responsibility. Social control means applying mechanisms for verifying the quality of farms based on field notes, management plans, peer visits from ethics commissions and evaluation (review of those visits). This work is further supported by a general assembly that approves the functioning of the PGS in order to issue the annual certificates of organic conformity, which are valid for twelve months. The PGS ensures that each participant within this process holds joint responsibility to fulfil the technical requirements. Together, they make up a collaborative evaluation system.

This is, for example, what happens in the Pajeú backlands. In Serra Talhada, Claudevan is part of the group of producers that does the inspections on the family farms of the neighboring municipality; the evaluated farmers, in turn, form a group to inspect properties in a third municipality; and so on until all those who requested the evaluation have been visited by peers. The report produced from these evaluations presents an opinion. If this opinion certifies that the property should receive the organic seal, an evaluation commission, also composed of peers, evaluates the need for new procedures and/or laboratory analysis. The organic certification is the result of

this careful process. And it’s worth it. “The value of the pound of product grows with the organic seal”, Joana celebrates. “Our certification came last year, and we already notice an increase in added value.”

Inside the associations, the decision-making processes also respect the best practices of participatory democracy. “We don’t buy a single screw without everyone knowing about it”, says Claudevan. For each agenda, the Pajeú Agroecological Association board meets for deliberation. And, at least once a month, an assembly is held with all members of the association, where the most complex decisions are debated and voted upon.

This is the case with the definition of budgets, as well. A consistent part of the associations’ income comes from two funds. One of them is the Productive and Environmental Incentive Fund, which is invested in infrastructure, logistics, and working capital. Another source of income is the Rotating Solidarity Fund, which serves as a source of self-managed micro-credit for the associations so that the farmers can solve production and logistical bottlenecks. Altogether, the funds have already invested about R\$800,000 (US\$160,000) in the seven Participative Organisations for Conformity Assessment, with support from Diaconia.

**“IT HAS TO BE A
COLLECTIVE EFFORT. IF
ONE MAKES A MISTAKE,
WE ALL MAKE THE SAME
MISTAKE.”**

—Claudevan Santos

FEMALE FARMERS AT THE CENTRE

Lucineide Cordeiro Marinho has slowly adopted agroecological practices. She recalls that she was introduced to the model of cotton in consortia back in 2013, when she decided to return for good from the city to live in the rural area where she was born. She faced resistance. “My father didn’t believe it would work. We always planted conventional, normal crops”, she says. Six years later, she made the decision to shift 100 percent of her production to an agroecological model, and today has a field full of beans, sunflower, and sesame, besides, of course, cotton. “And now he (her father) has given in”, Lucineide laughs. “And he sees that we can plant without burning and without using poison.”

Lucineide’s account is far from an isolated case. In most farms where agroecology is practiced, the entry point is women’s courage to try something new. Today, more than 50 percent of the association’s members are women. They’ve had to confront the resistance of men — not only to the novelty of agroecology, but also to the proposal of equal gender division in work, decision-making, and compensation. “In the beginning, I didn’t see myself as a farmer, just as a helper for my husband”, Joana recalls. “After we started working in the consortium, we increased our household income, and I understood that I also had a right to that money”, she adds.



Attracting women to agroecology, empowering them, and making them aware of their rights are some of the goals of the gender working groups that exist within the seven associations that make up the Cotton in Agroecological Consortia Project – Diaconia. And the numbers prove it: women occupy almost half (47 percent) of the total number of decision-making positions, and are part of the fiscal council, coordination, ethics and evaluation commissions, and presidency. Six out of the seven groups are headed by women.

Joana Darck is one of these presidents and stresses the importance of the gender debate among farmers. “It is a safe space for them to exchange information, confidences, and even warnings about domestic violence”, she says. Lucineide highlights the function of the trainings, which is key to clarifying the legislation and the rights of fellow women farmers. “They didn’t even know they were suffering gender violence. Most of the time, they think that violence is just hitting. But it isn’t, right? We see a lot of psychological and patrimonial violence as well”, she says. “So we have to deconstruct the idea that the woman goes to the field to help her husband. We go to work, so it’s only fair that the income be divided between both of us”, she concludes.

“IN THE BEGINNING, I DIDN’T SEE MYSELF AS A FARMER, JUST AS A HELPER FOR MY HUSBAND. AFTER WE STARTED WORKING IN THE CONSORTIUM, WE INCREASED OUR HOUSEHOLD INCOME, AND I UNDERSTOOD THAT I ALSO HAD A RIGHT TO THAT MONEY.”

—Joana Darck





Years after the foundation of the gender working group, many stories of women farmers have gained new, happier chapters. There are cases in which daughters were able to raise their fathers' awareness about violent family relationships; in which women who are now financially independent were able to separate from abusive partners, and also in which men decided to participate in the debates. "It's funny because one day a colleague came asking and thanking me: 'What did you do to my husband?'" Lucineide says, laughing. The group meetings about violence are divided into two parts: first, only with women; later, they open for men's participation. "We work a lot on the issue of masculinity, and it is very nice to see men already giving testimonials that, after the agroecological cotton project, they were able to change and improve as partners."

The scope of the working group also includes the development of professional training programs and workshops conducted by women for women. "This gives all of us self-esteem, emotional autonomy, and financial autonomy", Joana says. "The agroecological cotton was a radical change in my life. And for the better, thank God", she concludes.

"WE HAVE TO DECONSTRUCT THE IDEA THAT THE WOMAN GOES TO THE FIELD TO HELP HER HUSBAND. WE GO TO WORK, SO IT'S ONLY FAIR THAT THE INCOME BE DIVIDED BETWEEN BOTH OF US."

—Lucineide Cordeiro Marinho

DIVERSIFYING FIELDS



Farmer Francisco de Assis' production impresses with its diversity. His 3.7-acre property is divided into land ploughed for crops and a productive backyard. In the field, cotton is intercropped with cowpeas, several types of corn, and sesame. The productive backyard, on the other hand, has a little bit of everything. His goal here is to guarantee food for his family and for selling or trading within the community; in one case or another, something is sold commercially, like the vegetables, "which sell well and give an easy income", he comments. Just within his sight, Francisco can count at least 23 cultivated species, among them, pitaya, sugar apple, red mombin, and medicinal plants like miracle leaf and fennel. Francisco adopts agroecology, a production model that operates in opposition to the agribusiness of industrial logic.

Agribusiness works on large portions of land, cultivating acres and acres of a single species — in Brazil, mainly soy, corn, sugar cane, and coffee. To meet a global market that considers food as a commodity first, agribusiness uses anything that can increase productivity (e.g. genetically modified seeds, synthetic fertilisers and pesticides, and widespread mechanisation) in order to grow food faster and cheaper.

Agroecology, on the other hand, works on smaller farms and seeks to achieve efficiency through a smarter use of natural resources, rather than through heavy mechanisation and chemical technologies. An obvious opposition between the two models is that of crop diversification versus monoculture. This is the guiding principle of agroecological consortia: different species should be cultivated within the same plot. The choice of crops is based on several criteria, such as economic viability, production capacity under local natural conditions, and usefulness of products for the family.

Farmers in the semiarid region are oriented to work with consortia of cotton, beans (usually cowpeas), corn, sesame, peanut, sunflower, and green manure, among others. But the list of crops that can be included is huge and can include legumes, fruits, vegetables, and even medicinal plants. Given the regional differences, the most common are peanuts, Texas gourd, watermelon, pigeon pea, jack bean, brown hemp, velvet bean, butterfly pea, and lablab.

ORGANIC FARMING, IN PRACTICE



“PEOPLE HERE ONLY PLANTED MONOCULTURE AND DIDN’T BELIEVE IN THIS NOVELTY, RIGHT? BUT NOW WE CAN PLANT LOTS OF THINGS.”

—Francisco de Assis

To guarantee the desired productivity and ensure participatory organic certification, farmers need to pay attention to several sustainable practices, starting with the implementation of the plot. Close to the planting season (which usually occurs in February), the land preparation involves cleaning the land, if necessary, enriching the soil with organic matter, and setting up a clearing of branches and straw. Then, the soil must be ploughed, carried out with animal traction or compact tractors in order to ensure the maintenance of organic residues on the soil surface. At this stage, the contour lines must be adjusted, which is the most effective method for water retention and erosion control. The use of fire and burning, as well as synthetic chemical fertilisers, are forbidden.

The use of any chemical pesticides, which is the conventional method for pest control, is especially restricted in cotton crops, which are more sensitive to the attack of several pests such as the cotton boll weevil, as well as aphids, thrips, cotton root borers, silverleaf whiteflies, brown stink bugs, black cutworms, and lesser cornstalk borers — they attack the cotton balls, especially during the fruiting period. This is the reason for intercropping: different species, besides enriching the soil, protect each other from their natural pests. This is the main function of sesame, which should be present in all fields, as it serves as an attractant for pests like the whitefly, thereby ridding the cotton crop from potential disruptions. The cultivation of flowers is also recommended for pest control.

Other plants from the legume family have the function of being a potential agent of green manure. The ideal species will vary according to each region’s microclimate but, as a rule, they should have a high capacity for fixing atmospheric nitrogen in the roots, retaining soil humidity, and promoting an effective symbiotic association with bacteria and organic residues, in order to guarantee the retention of calcium, potassium, phosphorus, and magnesium in the plant tissues.

In each production centre, the Cotton in Agroecological Consortia Project promotes training modules that help farmers implement protocols, rules, good practices, and participatory organic certification. The training program follows the “learning by doing” approach, which is led by experienced farmers who share their knowledge with the collective. Diaconia also provides technical assistance in formulating the contents of the training modules, accompanying the consortia and providing professional training.

The producers in transition are oriented to start with a minimum of 2.5 acres for the Project, of which cotton must occupy 50 percent of the cultivated area. The remaining area should be cultivated with food crops, forage crops and green manure. “People here only planted monoculture and didn’t believe in this novelty, right? But now we can plant lots of things”, Francisco de Assis celebrates.

SEEDING CHANGE

“When I planted the first field, I was 12 years old and worked on it together with my parents”, recalls Francisco, now 59 years old. At that time, the whole family planted only landraces that were naturally adapted to the semiarid climate — resistant to drought and intense heat. “My family seed bank comes from that time”, he reveals.

For the development of agroecological cotton, it is essential to use the right seeds, those that are native and adapted to the semiarid. “Each producer is responsible for their own seeds”, Joana warns. This means not only ensuring the maintenance of these seeds over the years but also protecting them from cross-contamination — a major risk when there are large farms nearby that grow genetically modified seeds.

Francisco’s seed bank is a record of more than four decades of work. He has lost count of the number of registered varieties, but guarantees that there are more than 30 types of landraces and that every month he has orders to sell them to his peers and to other family farmers, yet he makes a point of giving them away. “As the guardian of seeds, I plant and help plant healthy food for everyone”, he says.



THE CHALLENGES

“The biggest difficulty is with labour. We don’t have many people who know how to do the work, and when we find them, it’s very expensive”, says Claudevan. A joint evaluation between the organisations that support the Project and the farmers identified two bottlenecks for the sustainable growth of production and income. The labour force in the field is one of them.

Unravelling this knot necessarily involves investing in machinery and technology. Farmers are testing the use of compact tractors, planters, brush cutters, and harvesters in the field, in partnership with the Federal University of Sergipe. The institution is instructing farmers on the most correct and efficient use of the machines, and systematising a step-by-step script — a Standard Operating Procedure. “The use of rotary hoes with compact tractors does not invert the soil layer and leaves the organic matter crushed on the soil surface”, reports Fábio Santiago, Diaconia’s project coordinator. “And it also provides a smaller carbon footprint, that is, a lower emission of greenhouse gases”, he adds.

In the field, everyone approves. “With a hoe, I spend an average of 25 to 30 days to complete a job that I did with the tractor in less than a week”, says Francisco. “This area that I did, if I were to pay for



the labour, I would spend about R\$1,000 (US\$207), but I didn’t even spend R\$100 (US\$20.70) with the machine. And I’m going to have a much higher productivity”, adds Claudevan, regarding the equipment the association bought to share among the producers.

The second bottleneck is access to the market for other products. In recent years, the Project’s agents and farmers have been working experimentally to process sesame into products with higher added value, such as fractionated grain, sesame oil, and tahini. The first sales of sesame-based products already surpass the average price that producers get working through intermediaries by approximately 65 percent. For the 2023 harvest, producers set up agreements with buyers prior to planting, guaranteeing their sales in the fair trade chain and offering financial security.

The most adequate model to commercialise crops other than cotton (like corn, beans, peanuts, and fruits) is still being studied. A new phase of product testing is underway, to be offered in the markets of the Northeastern capitals (e.g. raw and roasted peanuts, peanut butter, bagged beans, corn grain, and fruit pulp). Farmers also supply their healthy, organically grown produce to schools, through the National School Feeding Program.

Farmers have found that the most advanced and successful way to add value is by taking control over cotton ginning. By performing cotton ginning and the production of the lint bales within farmer associations, producers gain twice: with the added value of the product ready for the industry and with the return of the seeds, which are used for replanting or animal feed. In the record of Associação Agroecológica do Pajeú, the gain is evident. In the same month, two different producers sold 66 pounds of cotton. One of them sold it as raw material and got R\$30 (US\$6). The other offered the product already processed into cotton lint, and sold it for R\$90 (US\$18.60). The value-addition, coupled with participatory organic certification, can increase farmers' gain by about 350 percent for the same product.

Over three harvests (2020, 2021, and 2022), the seven Participative Organisations for Conformity Assessment supported by the project totalled production of over 136 tons of organic lint and lint in transition, 158 tons of beans, 618 tons of corn, and 34 tons of sesame. This sums up to a gross value of R\$4,849,000 (US\$1,006,183) — a resource to improve people's quality of life and to reinvest in the production of more quality food.



GROWING COTTON, FEEDING COMMUNITIES

The field is the starting point for two destinations: the store shelves (in industrialised products that use cotton) and the family table (as food that is produced in association with cotton).

The cotton seed enters the land with its route already mapped out. After being harvested by the farmers, the seeds are fed into ginning units (managed by local communities), separating seeds from feather to produce lint. From there, it travels to the French sneaker brand VEJA/VERT's factory.

Crops grown in consortia, on the other hand, hold the potential to feed those who live off the land, which is especially important in regions where systemic hunger continues to be a problem. A 2021 survey conducted by the Brazilian Research Network on Food and Nutritional Sovereignty and Safety concluded that 47 percent of the inhabitants of the semiarid region are severely food insecure.

Compliance with agroecology techniques keeps the soil always fertile and optimises the use of water, mitigating the impact of climate change on production. And within the farms, crop diversification enriches the earth with a variety of organic, fresh, and nutritious foods.

“My backyard is my food safety field”, Joana says. There, she produces enough sweet potato, banana, cassava, and acerola cherry for her entire family. “What we have left over, we trade with our neighbours”, she adds. “It’s a pleasure to have an organic fair like this at our doorstep”, adds Francisco.

**“MY BACKYARD IS MY
FOOD SAFETY FIELD.”**

—Joana Darck



REFRAMING FASHION

In the rural area of the municipality of Serra Talhada, over 245 miles from Recife, the capital of Pernambuco, a land where a little more than 18,000 people live, residents walk around wearing French sneakers. The scene is, at first sight, unusual. But these are workers enjoying the direct result of their sweat.

“They are very proud to wear the shoes made from cotton that they themselves grow”, says Luciana Pereira, head of supply at VEJA/VERT, a company based in France that produces shoes with sustainable inputs, such as agroecological cotton from the semiarid region and rubber extracted by certified cooperatives in the Amazon. The farmers’ sense of belonging with the brand can be easily felt: in 2018, when Meghan Markle and Kate Middleton appeared in front of cameras wearing VEJA/VERT shoes, messages popped up in producers’ groups celebrating the visibility of “our sneakers”.

This relationship is not just about pride; it is, first and foremost a business relationship — but within fair and solidary parameters. Together, the company and farmers’ organisations define the price of cotton and the payment terms, taking into account aspects like input inflation, harvest productivity, and the company’s financial health. For the 2022 harvest, the purchase of 110 tons of cotton lint from the semiarid region was closed at R\$26.90 (US\$5.60) per kilo (2.2 pounds) of organic product and R\$24.95 (US\$5.20) for the product in transition — on the open market, each kilo is traded for about R\$9 (US\$1.90).



It's good for the producer. "That money is our end-of-the-year bonus", says Claudevan. "And having the contract already signed is very good and motivates the families to produce more."

And it's good for the brand. "The agroecological cotton has a much higher quality than other cotton", says Luciana. "And we can show the consumer that we are investing in the world we want, without the use of heavy chemicals and with the capacity for social and economic transformation."

This partnership has been going on for almost two decades. In the early 2000s, Frenchmen Sébastien Kopp and François Ghislain Morillion travelled around the world and were amazed by Brazil. In the Amazon, they observed the sustainable practices of rubber tappers. In the semi-arid region, they met researcher and activist Pedro Jorge, founder of the NGO Esplar, who was working to rescue cotton in the interior of Ceará. In 2004, the VEJA brand already agreed on its first purchase of the agroecological product.

"The two dived into the world of agroecology and noticed the potential for transformation in people's lives", says Luciana. "And they created a sneaker that can tell those stories." "We tell the consumers: come here, come see where it (cotton) is produced, come to see the families that plant", says Claudevan.

Today, VEJA generates income for 1,200 families and employs 500 people. And the producers in the rural area of Serra Talhada can already boast of having sold over 12,000 pairs of sneakers in 68 countries.

"Every purchase of a product with agroecological cotton is a vote on the change of our life", Joana concludes.

*Real to dollar conversion through the Brazilian Central Bank on July 1, 2023

**"EVERY PURCHASE OF A
PRODUCT WITH AGROECOLOGICAL
COTTON IS A VOTE ON
THE CHANGE OF OUR LIFE."
—Joana Darck**



HEALING THE BROKEN LAND

**MADHYA PRADESH,
INDIA**



Featured Project

**Self-Reliant Initiatives Through
Joint Action (Srijan)**

Journalist/Writer

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TARACHAND AMBALKAR: A TALE OF TWO FARMS



The contrast between two cotton farms separated by a tar road is visibly stark. On the first, stands green, leafy, cotton plants intercropped with pigeon pea, or toor, and dotted with sunn hemp, a multipurpose tropical and subtropical legume mainly grown for fibre. Monsoon has finally withdrawn from the now-clear skies of central India, but it's warm in the days, with a hint of cold in the mornings and evenings. In November, a month from now, the nitrogen-rich hemp will be flattened for mulching, nurturing cotton and pigeon pea roots, augmenting yields, and enriching the soil before and after the harvest. This helps curb the use of chemical fertilisers to fix soil nitrogen and micronutrient deficiencies. It also extends soil moisture to help nourish the plant roots even if there's no protective irrigation. In between the cotton plants is marigold, which is nearing fruition – it traps the sucking pests and accelerates pollination by attracting bees with its bright flowers and strong scent. Along the bunds are a range of sundry species all planted, ostensibly, to stop soil erosion and help in making biomass that would naturally decompose and turn into compost. Sprouting all over the farm every so often are tall wooden sticks on which hang fluorescent papers — sticky pheromone traps to tame the marauding pests, including bollworms.

“This is my organic farm”, says Tarachand Ambalkar, in his 60s, picking up a fistful of soft soil that quickly sieves out of his fingers. “Not a drop of chemical here”, he says, lifting the branches of cotton plants to show the dangling healthy green pods almost ready to burst into smiling milky-white lint. His farm has fully transitioned from chemicals to certified organic in 4-5 years. Tarachand is a dalit*, or a ‘Scheduled Caste’ peasant-farmer in an otherwise tribal-dominated Borpani village, mostly comprising of small land-holder dryland cotton growers. Cotton, always planted in June-July, comes on the harvest late October-early November, Tarachand says,

and continues to yield cotton pods at least thrice, sometime four times until March. On the opposite farm of three acres, also belonging to Tarachand, are genetically modified Bt cotton plants, with leaves wilting, intercropped with pigeon-pea. The soil of this plot is stony hard and clumpy, unlike the organic plot's soft soil — rich in texture and runny, with little or no cracks. “That one”, Tarachand says, pointing his fingers to the opposite farm, “is where I use chemicals.” Cotton yield from both farms would be on par this year (2023), he says, but production costs will greatly vary. The cost of production on the organic farm is far lower than its chemical companion. Separated by about 50 feet, Tarachand's two farm-lands seem afar – like the north and south poles, bearing lessons for how his lands should, and should not, be.

The farm that he calls ‘Jaivik’ (metaphor for a living farm) is his future, Tarachand declares. Over the next five years, he plans to transform his entire family farmland of 12.5 acres into a Jaivik farm, one that requires no GM seeds, no chemicals, and no tillage. His own share of land is 4-5 acres; the rest divided among his two sons. Tarachand plans to do this gradually because, as he explains, the transition from the rampant use of chemicals for decades to sustainable practises that rely on natural inputs is fraught with difficulties: it begins with the challenge of sourcing non-GM seeds; the first two years of transition can bring a sudden dip in production, which, for a small-holder farmer can mean real economic vulnerability; then, you need training in preparation and application of bio-pesticides; finally, there's the cumbersome procedure to get organic certification to claim a premium on your crops.

*The term Dalit (translates to or “broken” or “scattered” in Sanskrit) also referred to as “Untouchables” and “Scheduled Castes” in India, refers to historically oppressed communities traditionally considered to be the lowest castes in the Hindu caste system. Dalits continue to be subjected to direct and systematic social, economic, and political discrimination by oppressor caste groups.

SANGEETA KUMRE: BUILDING RESILIENCE THROUGH NATURAL INPUTS

In Marram village, a few miles away, lives Sangeeta Kumre, 50, a diligent farmer belonging to the Gond tribe who owns with her husband Kannulal just two acres, and is upbeat about a gradual transformation being scripted in her own village. Here too, like Borpani, predominantly Adivasi (tribal) small-holder farmers are weaning away from the energy-input-intensive chemical farming to organic practises, using the biomass easily found on their own fields or in the surrounding forests. Oozing with confidence, mainly stemming from a great deal of training she's undergone, Sangeeta's fully-converted organic cotton-farm has a kitchen or "nutrition garden", a recent feature, which gives her family fresh food round the year, – like okra, chilli, greens, beans, fruits, and maize. "I want to improve our health by eating good food", she says. "I want to meet our household needs, so we are diversifying our crops – cotton and pulses and millets and vegetables. We use our own seeds", she says buoyantly, "and we don't use any chemicals."

A mile away, off the road from their small but clean home is a shed, with a sign reading Bio-Input Resource Centre (BIRC). Here, Sangeeta and ten other neighborhood women have come together as part of the Nav-Durga Women's Self-Help Group (SHG) to prepare the pach-patti-kadha — a bio-pesticide made with cow urine collected from their own cattle sheds, mixed with the foliage of five medicinal plants and



some jaggery, to be sprayed on the farms to control insect-pests. The group stores the bio-pesticide and other organic products they prepare at the BIRC. "We use it on our farms and sell it in one-litre bottles for Rs 30 apiece", Sangeeta says. A litre of this liquid emulsion dissolved in about ten litres of water is enough for an acre of land; it repels pests and improves soil health. Her group, she says, makes decent income from selling this bio-pesticide, the demand for which is steadily growing among even the non-organic farmers.

**"I WANT TO IMPROVE
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USE OUR OWN SEEDS
AND WE DON'T USE
ANY CHEMICALS."**

—Sangeeta Kumre

KESHAVRAO MARKAM: REAPING THE BENEFITS FROM JAIVIK FARMING

Half-an-hour drive from Marram is Chhindewani village. Here, 66-year-old Gond Adivasi farmer Keshavrao Markam is happy about the dividends he's reaping by switching to Jaivik farming. He's shunned chemicals on his 12 acres. It's laborious, but in five years, he's seen spectacular results. Early October, Keshavrao begins to harvest groundnut (a variety that produces a higher quantity of oil), planted on an acre of land in July alongside a five-acre cotton plot. His farm is split into four patches, lying at the foot of a hillock. Water streams down and fills up a large and deep farm pond, recharging Keshavrao's well, making second and third crops in winter and summer possible with protective irrigation, raising his income. In winter, he will also plant wheat, he says. "I would only grow cotton until a couple of years ago, because [the] water table would recede, and wells dry up", says Keshavrao, who's been farming for as long as he remembers. His farm is a portrait of a growing biodiversity, something that, he bets, is refreshingly changing his once-arid land. "Everything about farming is getting expensive", Keshavrao says, "[the] cost of seeds, fertilisers, pesticides, other chemicals. But prices (of commodities) aren't going up – so I'd barely break even." Now, with his new systems approach, his input costs have sharply fallen, his increased crop diversity provides opportunities for new income streams, and he has chances to create additional value from his crops — by ginning his organic cotton, crushing the seed to extract oil, and using the leftover de-oiled cake for his cattle. What's important, Keshavrao says, echoing Tarachand and Sangeeta, is his soil. Battered by the long use of chemicals, it is finally breathing again – as if it's been pulled out of a quagmire.





“I WOULD ONLY GROW COTTON UNTIL A COUPLE OF YEARS AGO, BECAUSE [THE] WATER TABLE WOULD RECEDE, AND WELLS DRY UP.”

—Keshavrao Markam

REGENERATIVE PRODUCTION LANDSCAPE COLLABORATIVE



Tarachand, Sangeeta, and Keshavrao are part of a growing number of farmers joining a nascent but significant initiative in India's Chhindwara district (within the state of Madhya Pradesh) — an initiative that creates a pathway for communities to gradually transition from market-dependent chemical agriculture to natural and organic practices. Hundreds of small-holder farmers here are bound by a common thread: cotton. Breaking away from the rampant use of chemicals on cotton monocultures, they are trying to switch to a combination of organic and modern methods to heal their farms and landscapes. In the process, they are finding the added benefits of cutting production costs, diversifying income sources, and steadily improving returns.

Borpani, Marram, and Chindewani are among more than one hundred otherwise obscure villages of this district's undulating and thickly forested blocks. Geographically, this region shares its borders with the Vidarbha region of Maharashtra state and is dominated by Adivasi (mostly [Gond](#)) communities. It's largely agrarian; cotton is the main crop. The Regenerative Production Landscape Collaborative Program, founded by the Laudes Foundation, the IDH-Sustainable Trade Initiative, and WWF India, is designed and steered by the non-profit Self Reliant Initiatives through Joint Action (Srijan) India. It places local small-holder farming-households at the centre of this transition. Today, in Sausar* alone, a block within the district, over a hundred villages, 6,000 tribal households (mostly small-holder farmers), and nearly 10,000-hectare of rain-dependent land have either partially or fully transitioned to certified organic. It took five years to get here. Since joining the initiative is optional, the number is still subdued — farmers take time to assess the results before making a call. Plus, the three years of the COVID-19 pandemic hurt the project, like it did the economy.

“There's a reason why we picked this region”, says Rajneesh Vishwakarma, the project coordinator for Srijan based in Sausar, “One, this is an economically impoverished region, with cotton monocultures, lack of allied sector, poor incomes, and no alternative source of livelihood; and two, these villages are sandwiched between the Satpura Tiger Reserve and Pench Tiger Reserve; they act as a corridor for wildlife.” The switch to organic and ecological restoration will indirectly aid in wildlife conservation, he says. For, the focus is not only on farms, but also on the landscape in which they are located.

The Sausar, Mokhed, and Pandhurna blocks, and Chhindwara district overall, are replete with forests. Home to rich flora and fauna, the region is a tapestry of an astonishing, but depleting, biodiversity enveloping the undulating terrain north of the Satpura hills. This is a region where farm incomes are paltry and most small-holder farmers — like Sangeeta — double up as farm labourers or seasonally migrate long distances to India's teeming metropolitan cities for work, driven by a lack of alternative livelihoods in off-farming seasons. [The socio-economic and caste census of 2011](#) of Chhindwara district pegs the average monthly income among the Scheduled Tribes (ST) individuals at a paltry Rs 10,000 (US\$120). Some tribal farmers collect non-timber forest produce to supplement their incomes. In some cases, government agencies provide wages to those who collect and harvest the forest produce.

*The state government has recently formed a new district named 'Pandhurna' consisting Sausar and Pandhurna block.

CREATING THE CONDITIONS FOR CHANGE

One aim of Srijan's Regenerative Production Landscape Collaborative in Chhindwara is to generate new livelihoods through allied sectors, says Rajneesh. Towards that end, most farmers in the initiative are increasing their livestock – cattle, goats, and small ruminants like chickens. Cattle dung goes to the farm. Small ruminants add to income. Srijan is well-entrenched in the region, having started working in 2005 with a beleaguered peasantry facing herculean challenges – from production to markets. Local communities trust the non-profit. Acting as a bridge between government agencies and civil society on one hand and the rural poor on the other, Srijan's approach is to create conditions for communities to diversify their livelihoods, and build and manage their institutions through consensual decision-making.





The idea of the project, Rajneesh says, is to wean farmers away from chemical-intensive monocultures to thriving polycultures using a combination of approaches that refrain from disturbing soils, with the expansive use of natural farm-based biomass. The approach stands in a 180-degree contrast with the country's overall thrust on industrial farming methods in the post-Green Revolution era. It's a real challenge, given that farmers are being asked to shun all that they have been practising for years.

In theory, the approach is an innovative geography-specific model to foster agricultural ecosystems that conserve and enhance natural resources and build community resilience while enabling businesses to source responsibly. The expected outcome: small-holder farmers thriving as a result of improved economic stability, enhanced livelihoods, and greater participation in decision-making. In local parlance, farming communities plainly call it Jaivik Kheti – or organic farming. The focus is not on one framework but a combination of non-chemical approaches to food and farming systems, which prioritises regenerating topsoil, increasing biodiversity, improving water cycles, supporting bio-sequestration, and increasing resilience to climate change — all to strengthen the health and vitality of landscapes. Srijan puts communities at its heart. In that sense, the regenerative production landscape is not a specific practice but a combination of techniques, like recycling farm waste, using compost and biomass, Rajneesh explains. “That’s why the process never stops”, he says. “You go on adding new aspects as the need arises.”

ORGANIC TRANSITIONS

In the Chhindwara villages, Srijan catalysed the first transition among farmers by supporting them in shifting from unbridled chemical use to acceptable integrated pest management. The second switch was to organic methods – Srijan asked a group of willing farmers from the villages to experiment with half-an-acre to one-acre, or a part of their overall land parcels, and see the results. The farmers in Sausar are at different stages of this transition. But some of them, who were first to enrol into the project, have leapfrogged to the regenerative landscape framework, convinced of its transformative outcomes. The change begins with five simple principles. “You disturb the soil not at all or only when needed”, Rajneesh says. So, no-tillage. “For that, a farm must have green cover, live roots, multi-cropping integrated with livestock, and a good water table round the year.” Each of these measures calls for cost-effective interventions to fix a tattered ecology. “But for one, we have succeeded in implementing all other principles in the farms”, he says. “We are yet to succeed in maintaining live roots round the year – that’s an ongoing search.” A set of new crops have sprung up on their lands, farmers say. They bring in staggered income. Ultimately, however, the regenerative agriculture landscape initiative is a drop in the ocean in a country where cotton occupies nearly 14 million hectares of farmland today — the largest of any country in the world.

Grown mostly on arid drylands by small-holder farmers owning less than a hectare of land, nearly 95 percent of Indian cotton is genetically modified (GM) hybrids, introduced around 2002-03, that need relatively huge investments with no better returns. The first GM cotton crops that took over the fields were Bt-cotton, where Bt stands for the bacterium *Bacillus thuringiensis*. A gene from this bacterium produces a toxin that resists insects and pests. That gene was genetically engineered into the genome of the cotton seeds. Another GM cotton that claims to be herbicide-tolerant is under field trials in India, but not yet approved for a commercial release. It’s an irony that Indian cotton today is dominated by industry-suited GM hybrids, and not the native varieties that ruled the world of fabric prior to the Industrial Revolution. Some of those native cottons were perennial, called Dev-Kapus in Marathi, or “God-Cotton”, but are now extinct. The long shadow of colonialism and the western-dominated textile industry that favoured the American upland cottons steadily displaced dozens of Indian native and perennial varieties that suited the hand-looms. Today, India no longer grows its local cotton landraces, but plants American upland varieties. “The region needs a healing”, Rajneesh says, “farmers, their lands, and the larger ecosystems.”





“THE REGION NEEDS A HEALING — FARMERS, THEIR LANDS, AND THE LARGER ECOSYSTEMS.”

—Rajneesh Vishwakarma

HEALING THE FARM, HEALING THE LAND



The healing must start with the smallest unit – the farm. “When the team of Srijan first came to our village, I volunteered to join the experiment with one acre”, says Suklibai Aahake, 55, a tribal farmer in Aaamla, a village of which nearly a hundred farmers piloted the transformation. That was in 2016-17. Before becoming part of the initiative, Suklibai only grew cotton intercropped with pigeon pea on her two acres, using a blend of chemicals that she had no idea about. From seeds to chemicals, everything was expensive. Her family barely made any income, had debts, and would double up as farm labourers. Today, on her Jaivik farm, Suklibai continues to grow cotton and pigeon pea, but has reintroduced ground nut and other crops in rotation on her small stretch, without using any chemicals. Rotating crops helps the soil. She makes her own ‘Paach-Patti Kadha’, a standardised bio-pesticide prepared with cow urine collected from her cattle-shed and mixed in a drum with leaves of five plants and organic jaggery. After eight days of rest, this cocktail acts as a natural pest-control. In the following years, Suklibai learnt not to disturb her soils (minimum tillage), and to plant non-Bt hybrid seeds that Srijan sources from a private seed company in the western state of Gujarat. The switch took a lot of patience, adjustments in farming practises, and constant training. “My production fell first, from 8-9 quintals to 4-5 quintals of cotton”, she says. “But my production cost also fell, because I did not have to spend on buying inputs.” Then production recovered. Her soils are healthier now, and she grows a lot more crops in rotation, for slightly better returns.

Srijan has trained and equipped men and women in several villages to prepare bio-fertilisers and bio-pesticides that can be used on any crop. “We have products that are completely organic, cost almost nothing, and are extremely useful — not just with organic farming but also otherwise”, Rajneesh says. For this purpose, Srijan has set up 21 Bio-Input Resource Centres, or BIRCs, managed and run by the village-level women’s Self Help Groups (SHGs). The BIRCs produce and store the bio-pesticides, compost, and organic fertilisers for sale round the year, in a decentralised manner. Farmers take time to adopt organic farming practices but there’s a reason they do.

Tarachand remembers a time, well over 40 years ago, before cotton emerged as a mono-crop. At that time, people grew other crops, like soybeans; they provided good yields for the first few years, but when the yields plateaued incomes depleted. “Our soybean yields were low and of poorer quality”, he remembers. “Chemicals had spoiled the soil.” Bt cotton, Tarachand says, went through a similar trajectory. Today, one of the problems small-holder farmers face is the need for a big financial investment on a variety of inputs — seeds, fertilisers, pesticides, and numerous other necessities including machinery, equipment, electricity, and water that farmers must buy before sowing a single seed. As these inputs are owned and controlled by a few corporations, and their prices have, over time, risen disproportionately compared to crop prices and farmers’ incomes. Farmers experienced a short period of good yield and good income, before they began to meet the same fate as that of the soybeans. This vicious cycle of chemical farming – from high input, high yield, and good income, to higher input but falling yield due to soil degradation and other factors, such as resistance to pests – is the main reason farmers willingly joined the initiative.



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KNOWLEDGE FROM THE PAST, RESILIENCE FOR THE FUTURE

Srijan's approach starts with hosting conversations within villages around issues like soil health, crop productivity, and the costs of chemical inputs. Gradually, it encourages them to try organic cotton farming on a part of their land. At every stage, farmers lead the conversation – be it farming or marketing. Tarachand remembers the initial discussions around organic farming. “Chemical farming for cotton was a problem. We thought about Srijan's proposal and decided to give it (organic farming) a try on one acre of land first”, he says. “Even if the output is less, it improves soil health in the long run.” Chemical farming is still not completely replaceable because of various factors, such as longer time periods for income to stabilise with organic cotton and having to navigate the need for immediate liquidity to service essential family needs like medical and educational expenses. Transitioning back to a sustainable cycle of organic cotton cultivation, complemented by other crops, livestock, food processing options, storage capacities, rainwater harvesting, and more, therefore, requires a considerable amount of time and thoughtful planning. Even as the farmers shift towards sustainable agriculture, they require support from the governmental agencies that influence prices, subsidies, procurement, trade, and crop insurance, along with partners such as Srijan who can help them re-learn the techniques that chemical farming displaced.



Not too long ago, before the advent of chemical and mechanised farming, the people in the region grew millets like sorghum and maize, pulses like pigeon pea and chickpea, and grains like wheat. Old-time practices were simple and sustainable, with minimal input costs. Seeds, fertilisers, and pesticides, were all made with natural ingredients, such as cow dung, mostly sourced from the farm itself, or the livestock. This traditional way of practising agriculture using natural methods, was simply known as “farming”, long before the term “organic” was coined and applied to it. “We use organic inputs to grow all crops and not just cotton”, says Vastaram Vikhe, another small-holder cotton farmer. After piloting organic cotton, most farmers have been using organic inputs for all their crops, even if they use them in combination with the chemical inputs for lands that are not yet fully organic. In five years, and indeed going forward, multi-cropping is back as a robust practise. It takes three years to get organic certification, a period in which the soil gets rid of any chemical traces. Certified organic produce gets a premium over non-organic produce in the markets. “So, saving input costs, and better price for organic cotton makes it viable”, Tarachand says.

Yet, there are farmers like Salakram Masram who have fallen back on the use of chemicals, tired of the wait it takes to turn fully organic and regain the higher productivity. Attrition is low, but exists. “I tried it for a few years but last year when I was hoping to get a good output finally, I lost almost all of it”, he says. That could largely be because rains were in excess last year. “I am not comfortable with the time it takes to get good output so I might switch to Bt cotton farming next year.” Scaling up hybrid seed planting is difficult, because sourcing non-Bt seeds in India is a tough ask. Private inputs dealers don’t sell it, because no major company produces non-Bt cotton seeds. In 2023-24 season that began in July and is currently heralding

into the harvest, Srijan distributed non-Bt hybrid seeds worth Rs 40 lakh (around US\$48,000) in three blocks of Sausar, Mokhed, and Pandhurna. A packet of seeds weighs 450 grams, just about enough for about an acre of land, Rajneesh says. This season, he says, the organisation planned for over 6,000 acres of land, with nearly as many growers.

Almost every farmer that is part of this initiative has had a similar trajectory – starting with a tiny parcel of land, seeing the lows and highs of production during the transition, then gradually navigating towards partial or full conversion. Srijan encourages diversification of crops and adding activities such as backyard goat farming, poultry farming, small dairies, nano orchards (a concept Srijan is introducing in this part in which a small-holder farmer plants perennial fruit trees on half an acre of their land for better returns), fisheries, or agroforestry (planting cane or teak, for instance). As of now, some farmers have transformed their entire land using regenerative techniques, while most are in different stages of transition, Rajneesh says. Not all farmers in a village are making the switch, because adopting the new farming model is voluntary, and not all farmers are ready for it.



FACING AGRARIAN CRISES

Srijan's interventions are in sync with hundreds of similar models mushrooming across India – the model of Sahaja Aaharam in Andhra Pradesh and Telangana states; the Kadvanchi model in drought-prone Jalna district of Maharashtra; the agroecological collective farming models developed by the Deccan Development Society in Zaheerabad district of Telangana; or the Kudumbashree collectives of Kerala state. Each of these models, whether to resurrect the broken cotton landscapes or alter systems of monocropping, is a response to the gigantic ecological erosion that has led to deep fissures in rural economies and social life.

India has been in the throes of an agrarian crisis for over two decades now, symbolised by a spate of continuing farmers' suicides, falling incomes, growing indebtedness, and resultant out-migration. About [400,000 farmers](#) have died by suicide since 1997, according to the annual reports of the Accidental Deaths and Suicides published by India's Union Home Ministry. An average of [2,000 farmers](#) have been quitting agriculture every day since 1991 – overall 7.5 million farmers have quit farming between 1991 and 2011, according to the decadal census data. Since the 2021 census is yet to be conducted, the number of farmers exiting agriculture in the last 12 years is not known, but indications are that the trend has continued, and, if anything, increased.

Many structural problems remain at the core of the growing distress in the Indian countryside. The first is small land holdings. In the last decade, the average size of



agricultural land has been shrinking year on year. According to the 2015-16 agriculture census, about 86 percent of Indian farmers own less than two hectares of land. This number has since risen to over 89 percent as of March 2023. This, unfortunately, translates into meagre incomes, which barely suffice to cover basic household and other essential expenses. These disparities are further exacerbated across caste, tribal, and gender groups.

The second is farmers' dependence on rain-water for irrigation, due to the lack of protective ground or surface irrigation systems. For many Indian farmers, life revolves around the rhythms of rain. The lack of protective ground or surface irrigation systems means that farmers are forced to rely heavily on rainwater for irrigation. This dependence, coupled with seasonal farming, restricts crop choices and the scope for year-round cultivation. As a result, farming communities often find themselves seeking off-agriculture employment or migrating to distant regions in search of work.

The third is the overreliance on chemical input-dependent monocultures. After drastically improving the net production and productivity of the country in general and north India in particular, the Green Revolution fatigue set in by the early 1990s, as indicated by the Dr M. S. Swaminathan, also known as the "Father of India's Green Revolution". Monocultures devoured the diversity on farms, stagnating yields even as production costs rose dramatically with



every passing year, leading to severe soil damage, the erosion of farmer sovereignty, declining incomes, and growing indebtedness. This resulted in the introduction of expensive technologies – for instance, Bt cotton.

Compounding all of this is the fourth problem: climate instability. Over the last decade, India has been increasingly experiencing erratic monsoonal patterns, with delayed rains, extended dry spells, and unpredictable heavy rainfall events. These climatic variations create drought-like conditions, flash floods, and overall volatility within the agricultural sector. For Indian farmers, the already challenging task of farming has become even more unpredictable and demanding, unleashing new challenges and vulnerabilities.

Other problems persist too. For instance, lack of access to formal low-interest credit is a major impediment, leading farmers into an usurious trap of high-interest informal credit. These issues, compounded by systemic social inequalities, unequal land distribution, and market volatilities in the post-liberalisation phase (post-1991), have together spelt doom for the peasantry and for farm ecology. Not surprisingly, Gross Domestic Product (GDP) growth in the agricultural sector — a sector that employs over [60 percent](#) of the population, directly and indirectly — is on a steep decline. It stands at a little over [18 percent](#) today. In the last 30 years, cotton cultivation underwent a major transformation, as first, the hybrid, and later, the genetically modified cotton, pushed production up before it stagnated and fell. Inappropriate and expensive technology, together with widespread farm mechanisation, has crippled farmers financially, while ravaging the ecology of the regions. Among the worst-hit are the cash crop growers — mainly cotton farmers.

RESTORING THE WATERSHED



There is a need to fix farms, but perhaps more importantly, there's a need to heal the landscape. "We locate farms within a landscape, one aspect of which is [a] watershed", Rajneesh explains. "We must start slowing down the rain-water runoff in the catchments." This process of reducing runoff can have a magical impact on the groundwater table and soil moisture – both of which are critical in rain-dependent farming. With no surface irrigation around, farmers rely on groundwater. Water engineers across the world call it a "ridge-to-valley" approach – it's top-down.

Given limited resources, Srijan has created a few models for restoring watersheds. And they have begun to show results. In Chhindewani, Keshavrao, the veteran farmer, vouches that the groundwater table in at least a dozen villages around the surrounding hills has immediately improved. He shows a well behind his cattle shed that's overflowing, a running clean-water stream, and a large farm pond on his land where he grows fish for additional income. This water, he says, has allowed him and other farmers to cultivate two, possibly three crops – one in the monsoon, the second in the winter, and the third, short-duration crops in the summers. "This is what you get", Keshavrao says, "if you work the hills." In May, the hills are barren and red. In October, as the monsoon season finishes, they are green and grey. A few miles from the village, the road winds up into the hillock, a large terrain enveloped by the boulders, wild grasses, and perennial wild trees that are native to this region. "This is a large catchment", Rajneesh says. "If we manage to slow down the water flow to make it percolate into the ground, it recharges aquifers and enhances the water table downstream."

**"WE LOCATE FARMS WITHIN A
LANDSCAPE, ONE ASPECT OF
WHICH IS [A] WATERSHED."**

—Rajneesh Vishwakarma

Aided by Srijan's engineers, Chhindewani village came together in 2022 to work on the watershed. They built four different structures to regulate the water flow downstream. The first structure is a continuous contour trench — CCT, in hydrological parlance. Lower down is a structure called a doha, a deep rectangular trench dug in the natural stream. Water flows down from the CCT and traps soil here, stopping erosion. Farmers can use the soil collected in doha on their own farms, since it is rich in nutrients, it enhances the productivity. Further down is a set of five or six loose-boulder-check-dams (LBCD) at the culverts. They stop soil erosion completely and slow down the water flow, particularly during heavy rainfall. At the bottom is a big Gabion structure, a stone-cement dam covered with iron mesh that widens as it hits the plains. It also allows the stream to flow downstream much slower. All the water flowing out of the Gabion gets collected in farm ponds around the hillock. The farm pond on Keshavrao's farm, for instance, gets water from upstream and is useful for irrigation post-monsoon, when crops demand additional water for better growth.

Four years ago, the sparse wells in this region would dry up post-monsoon, as would streams. As a result, farmers could not cultivate winter and summer crops, limiting their incomes. "It would take longer to recharge our wells, but today it is the other way round", says Keshavrao. Ankit Pathak, a civil engineer with Srijan, explains the need to stop the water flow over the slopes to stop the erosion of the top. "If you don't regulate the water flow, both water and soil will run off", he says. "All the rainwater will simply not be of any use", he says, "unless it stops and percolates." The watershed treatment that Srijan has carried out — essentially, erecting impediments in the natural streams on the hill at different points — helps tap the rainwater and eventually leads to the betterment of soil health and water table. Walking across the undulating terrain, Ankit explains the effect.



"Because of this, the overall groundwater level has improved", he says. It has surely replenished the farm wells as aquifers got recharged. "This has been useful for us to grow a second crop in winter and vegetables in summers", says Keshavrao. Farmers, especially small-holder farmers, are vulnerable to unexpected monsoon changes because they are dependent on rains. Most of them do not have the financial means to tap groundwater. Structures like bore wells, dug wells, farm ponds, and field canals are capital-intensive.

Srijan has created models of watershed works and landscape fixes across Sausar, Mokhed, and Pandhurna blocks, demonstrating their value to the community and government agencies. It has raised funds to carry out watershed treatments that are easily replicable in every part of this district. Structures like the LBCD, constructed with loose rocks and boulders on the hillside, are able to be made by the villagers at no cost. The only structure that they did have to pay for was the Gabion. However, Rajneesh explains that large-scale impact would require significant public investments. Who'll manage the watersheds now? Who will do the annual repairs? "Us", says Keshavrao, meaning the village community.

"IF YOU DON'T REGULATE THE WATER FLOW, BOTH WATER AND SOIL WILL RUN OFF. ALL THE RAINWATER WILL SIMPLY NOT BE OF ANY USE, UNLESS IT STOPS AND PERCOLATES."

—Ankit Pathak

ORGANISING ORGANICALLY

“Community institutions are the engine of our work”, says Rajneesh. Within them, women farmers form the bedrock and hold the leadership positions. Transferring knowledge to people – from landscape-based production systems to market linkages, is the key. The idea is to create the conditions for community institutions to be able to take over the work, in Srijan’s absence. In Chhindwara and elsewhere, Srijan has formed multi-layered institutions of men and women farmers from the village to the district levels with shared and varied responsibilities. There are Self-Help Groups of women that run smaller enterprises such as BIRCs; there are farmers’ producer organisations, or FPOs; the village level collection centres, or VLCCs; and the professional for-profit business entity, called the Chhindwara Organic Farmers Enterprise (COFE). “Growing organic produce is one thing, selling it and getting a premium quite another”, Srijan’s staffers explain. “What’s the economic incentive otherwise to make this laborious switch?” This is where COFE comes in.

The COFE board is made of women farmers who make decisions – which products to aggregate, what quantity, what kind of processing they want to undertake and decisions about inducting new members – and have a vision to expand their current product base, not only for organic cotton, but also for value-added food and horticulture crops.



“We were trained in management and planning”, says Surekha Lanjewar, one of COFE’s directors in Sausar. “We want to increase the work and scope of what we do”, she says. COFE took on board women farmers in making pulp of custard apple, grown on and sourced from the local orchards, and found a market linkage with the Nagpur-based Dinshaws, a leading dairy company and ice-cream producer, assuring the purchase of the pulp for its ice-creams. COFE has a 10-tonne cold storage facility and an office building, and plans to expand. In the next five years, COFE plans to induct more members as the number of organic farmers in the district grows. And it aims to have more products to sell in its organic basket. Much of it would depend on COFE’s abilities to enhance its capacities and tap into formal credit support.

Cotton prices are volatile, determined by a number of local and global factors – including the prevailing global prices and domestic demand. In the Indian context, however, apart from being at the mercy of market forces, farmers are forced to make deals with middle men, traders (“vyapari”), and money lenders who might have given them loans before the sowing season for seeds, fertilisers, pesticides, and other input requirements. Often, farmers have to hand over their entire produce in order to pay off the loan. Farmers also bear the transport costs, loss caused by faulty weighing at these markets, and reduced prices if any quality depreciation is found due to weather or storage. While market forces continue to influence farmers, Srijan tries to eliminate other loss-making factors for the organic cotton growers. That’s the reason for establishing the local collection centres with links to the ginners who would buy and process the organic cotton. With a small share-capital of Rs 5 lakh (around US\$6,000), COFE is among the growing number of community enterprises sprouting across India. This company collects farm produce through what it calls the Village Level Collection Centres (VLCCs),

mostly managed by the women farmers and members of COFE for a small commission to cover their administrative expenses.

Last year, COFE procured 1,100 quintals of organic cotton from 3,000 farmers and sold it to a ginner in Sausar. This year, COFE plans to double its organic cotton procurement from 5,000 farmers. “The scale is small right now and rightly so”, says Rajneesh, “it will grow gradually, since the company does not have experience in business management and has limited resources.” The community-run VLCCs ensure that cotton or other crops are collected in the village itself to eliminate transport costs. They also ensure that crop weighing is accurate and farmers don’t incur the loss of 10 to 15 kg per quintal (through faulty weighing machines or manipulation) if sold to a private trader. “Traders manipulate the weighing machines to reduce the weight of cotton by at least 10-15 per cent”, farmers like Tarachand say. “That’s a regular practice – we suffer the loss.”

Lastly, by making a deal with a ginner beforehand, who agrees to buy the organic cotton with 8 to 9 percent markup on the market price, it is guaranteed that their produce has an assured buyer. Srijan ensures that the transport from VLCCs to the ginning mills is borne by the buyer. “Last year was my first experience with procurement”, says Kalpana Pachpore, a farmer and member of COFE who mans the VLCC in Aamla. “I bought 10 quintals of organic cotton; this year it will double or triple; the payments are made quickly”, she says. COFE aims to expand this year. Apart from managing the collection and sale of organic cotton, the body (COFE) promotes other activities such as making jams and jellies and products from foods like custard apples, wild-berries, and mangoes. The directors of COFE are deeply aware of the challenges facing farmers, and are in search of solutions that are beneficial for the entire community.



GROWING HOLISTICALLY



Srijan's thrust on landscape correction sits well with local tribal communities' traditional wisdom. "Growing food crops is not the same as growing cotton", a number of Srijan's farmers hold. "We don't merely think about the marketable surplus; we grow food for our consumption." Crops grown in nutrition gardens in their backyards or farms, for instance, aren't merely for selling or marketing because they want to first secure their own food. "If we grow wheat, jowar, or pulses that will last us the whole year, we won't be worried to buy it", says Sangeeta, the farmer in Marram. That's why the drive for multi-cropping and diversification on the fields through Farmers Producers Groups or Organisations is being well received; there are now nearly a hundred such groups marked in clusters across the district. Through them, Srijan promotes nano-orchards, a system of dry land perennial horticulture crops on small parcels and trees to aid in allied income of a farmer household. That goes hand in hand with transforming farming practises to fit within the regenerative production landscape approach. Nagpur, the heart of India's orange production, is 70 km away, and many farmers now grow oranges in Sausar too. If rainfall and climatic conditions are favourable, farmers can definitely rely on nano-orchards as a substantial source of income. Sausar is also replete with other fruit varieties, such as mangoes and custard apple. Fruit-bearing trees have a unique place in Adivasi life. The Gonds, for instance, grow a number of trees, such as mahua and charoli. Communities harvest their fruits for different purposes. For example, Mahua flowers have medicinal properties and are used to distil liquor. Srijan believes that these trees add biodiversity to the farms, but can be a source of nutritional security for households and sustained income for farmers.

"GROWING FOOD CROPS IS NOT THE SAME AS GROWING COTTON. WE DON'T MERELY THINK ABOUT THE MARKETABLE SURPLUS; WE GROW FOOD FOR OUR CONSUMPTION."



**“DON’T GROW MORE,
GROW DIFFERENT CROPS”**
—COFE’s slogan

With farmers across the length and the breadth of India facing innumerable challenges — from a battered ecology to poor economic returns, to climate change to market volatilities — localised holistic solutions, such as the Srijan’s Regenerative Production Landscape Collaborative Program, seem a step in the right direction. The need to fix the broken ecology is an urgent first step to mitigate the farming problems — as this model shows.

Srijan — which plays the catalyst here — realises that the interventions can begin with cotton growers in an economically lagging region like Chhindwara. For, the cotton growers are the worst-hit, with expensive and inappropriate Green Revolution technologies causing grave damage to local landscapes, disrupting sustainable practices and destroying livelihoods in the long run. The transition Srijan is steering through the community institutions is beginning to show some results, with the farmers weaning away from chemicals to embrace organic methods while maintaining their productivity and ensuring better returns.

A key part of this transition is to diversify and grow more crops on a farm — crops that also ensure round-the-year availability of fresh organic food for their own intake. The regenerative landscape approach integrates livestock and watershed development to farming, as some farmers in Chhindwara are demonstrating. Many are still reluctant to adopt the switch, but those who have made the transition believe others will join in, sooner or later.

The producers’ organisations, like COFE, will slowly influence the farmers, thus far reluctant, to join in the transition and adopt sustainable practices to grow different crops. COFE, on its part, aims to aggregate the produce, add value, and tap markets so that what their member farmers grow gets fair prices and stable buyers. The company’s focus on other products has solid grounds. If farmers grow multiple crops and are able to monetise it, it will not only help the soil regeneration but also mitigate other risks associated with monocropping.

Rajneesh sums it up: “Fixing policies is a long-term and ongoing agenda. In the interim, we can cut the risks in farming by reducing the production costs and reliance on chemicals, improve soil health, and set up trained community institutions to deal with supply-chain, processing, and marketing.” Growing crops with varied life cycles can ensure year-round income for a household.

No wonder that COFE’s slogan is: Don’t grow more, grow different crops.



“FIXING POLICIES IS A LONG-TERM AND ONGOING AGENDA. IN THE INTERIM, WE CAN CUT THE RISKS IN FARMING BY REDUCING THE PRODUCTION COSTS AND RELIANCE ON CHEMICALS, IMPROVE SOIL HEALTH, AND SET UP TRAINED COMMUNITY INSTITUTIONS TO DEAL WITH SUPPLY-CHAIN, PROCESSING, AND MARKETING.”

—Rajneesh Vishwakarma

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*Cotton
Diaries*

