

## **Institutional Trust and Farmers' Perceptions of Cotton Policy in Hauts-Bassins, Burkina Faso**

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**Abstract:** This paper investigates the determinants of cotton producers' perceptions of cotton policy in the Hauts-Bassins region, the main cotton-producing area of Burkina Faso. In light of a persistent decline in production since 2014, the study seeks to understand how farmers evaluate the policies implemented by cotton companies and how these perceptions influence their level of engagement. The analysis is based on data collected from 369 producers in the municipality of Léna, located within the SOFITEX zone. Farmers' perceptions are measured as an ordinal variable (poor, good, very good) and analyzed using an ordered logistic regression model. Results indicate that four variables significantly shape producers' perceptions: age, cotton farming experience, total farm size, and trust in cotton sector authorities. While age, land size, and trust are positively associated with more favorable perceptions, farming experience exerts a negative effect. The findings highlight a deep mistrust among producers toward cotton sector authorities, who are perceived as disconnected from their concerns. The study recommends more participatory governance, improved institutional communication, and greater involvement of smallholders in decision-making processes to strengthen support for cotton policies

**Keywords:** Cotton Policy, Farmers' Perceptions, Institutional Trust, Agricultural Governance, Burkina Faso

### **1. Introduction**

Cotton production in Burkina Faso has experienced a worrying downward trend since 2014, as evidenced by FAOSTAT statistics (2021). This decline stands in stark contrast to a rising domestic demand, estimated between 600,000 and 800,000 tons, while the supply provided by the country's three national cotton companies – SOFITEX in the West, FASOCOTON in the Center, and SOCOMA in the East – has stagnated at around 150,000 tons (CCI-BF, 2021). Despite awareness campaigns and communication efforts

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undertaken by public authorities and cotton companies to revive production, the expected results have failed to materialize (Konsimbo, 2019). Consequently, an increasing number of industrial and artisanal oilseed processing units have resorted to sourcing cottonseed from neighboring countries such as Benin, Côte d'Ivoire, and Ghana.

Yet, the stakes surrounding cotton production extend far beyond the agricultural sector alone. Cotton is a strategic lever for the national economy: it sustains thousands of jobs across the value chain – from production to processing – and contributes to the development of Localized Agrifood Systems (SYAL). Cotton by-products, such as seeds and cottonseed cake, are also essential for animal feed, thereby supporting food security in the livestock sector. These positive externalities can enhance livestock productivity and sectoral incomes, while also helping to ease recurrent conflicts between farmers and herders in a context of dwindling pastoral resources, especially under the pressures of climate change.

The economic literature has widely examined the determinants of cotton productivity, emphasizing price-related factors such as tariff incentives (Douya, 2009; Koffi-Tessio, 2000; Ndieng, 2003; Ogbu & Gbetibouo, 1990; Savadogo et al., 1995). Other studies have highlighted non-monetary determinants, including input investments, farm size, labor availability, and farmers' human capital. However, one aspect remains relatively underexplored: how producers perceive cotton policy itself, even though this perception may play a critical role in shaping their support for, or disengagement from, the institutional mechanisms and strategic directions being promoted.

As Narayana and Parikh (1981) noted, agricultural decisions are not solely guided by technical constraints or economic rationality; they are also embedded in a subjective framework shaped by farmers' perceptions of their environment, opportunities, and associated risks. The farmer, as a rational actor, makes decisions based on their interpretation of their own circumstances, which makes understanding the individual and collective perception of public policies essential (Brossier et al., 1984).

This study builds on that perspective by exploring the determinants of cotton producers' perceptions of cotton policy in Burkina Faso, with a particular focus on the western cotton-producing region, notably the Hauts-Bassins. Specifically, it aims to understand how producers perceive the current policy framework and to identify the key factors influencing that perception. By doing so, the study seeks to shed light on the root causes of producers' gradual disengagement and to contribute to the design of policies that are better aligned with the social and economic realities on the ground.

## **2. Review of the literature**

Perception, understood as the process by which individuals interpret information from their environment to guide decision-making, plays a central role in the analysis of economic behavior. According to Ban and Hawkins (2000), it is a conscious psychological act based on the reception and interpretation of external stimuli. When applied to agriculture – particularly to the cotton sector – this concept helps explain how producers respond to policies, technological changes, and market incentives.

Cotton cultivation in Sub-Saharan Africa faces multiple challenges: price volatility, limited access to inputs, insufficient technical support, and the growing impact of climate-related shocks (Amanet et al., 2019). These objective constraints interact with subjective dimensions, such as how producers perceive public policies, agricultural institutions, and the broader economic environment. Several studies have explored the determinants of these perceptions, whether they be socioeconomic, institutional, or technical.

Padhy et al. (2021) examined stress factors in cotton farming and how they are perceived by producers. Their findings indicate that variables such as farm size and the frequency of contact with extension services directly influence perceived stress levels, revealing a close relationship between technical support and farmers' psychological well-being.

In a recent study, Bhandarwar (2023) analyzed farmers' perceptions of an emergency cotton policy for the winter season. The results show that variables such as farm income, land ownership, membership in farmers' organizations, and regular interaction with technical services are positively and significantly associated with favorable perceptions of the policy. Meanwhile, characteristics such as farming experience, education level, and household size are positively and significantly associated with better understanding of the program, suggesting the importance of human capital in policy uptake.

Socioeconomic factors also play a fundamental role in the improvement or stagnation of cotton production. Bindu and Maurya (2022), in their analysis of the constraints facing cotton producers, highlight that age, experience, and education positively influence producers' adaptive capacity in the sector.

Other studies have focused on the perception of technological innovations. For example, Elum and Sekar (2015) found that landowners are paradoxically less likely to adopt genetically modified cotton (Bt cotton), highlighting a distrust of innovation despite greater land security.

In a different context, Kabwe et al. (2018) examined cotton sector governance in Zambia and Zimbabwe through the lenses of contract farming and informality. Their findings

reveal a crisis of trust between producers and cotton institutions, driven by perceptions of opacity and unfair practices, which undermine the sector's economic viability.

With regard to sectoral reforms, Boafo et al. (2018) compared stakeholder perceptions in Ghana and Burkina Faso. While Ghanaian producers predominantly expressed negative views of the reforms, especially due to a lack of transparency in price setting, producers in Burkina Faso reported more nuanced perceptions, citing both positive aspects (such as improved sectoral organization) and negative ones (such as issues with compensation and input distribution).

Input use has also been a key topic of investigation. For example, Padaliya et al. (2023) examined farmers' perceptions of pesticide use and found that education level, farming experience, income, scientific orientation, and mass media exposure are positively correlated with better perceptions of pesticide use. In contrast, age is negatively associated, indicating greater reluctance among older producers to use chemical inputs.

Another study, conducted in Myanmar by Khin Khin Mu et al. (2018), focused on the perception of fertilizer management practices. The authors found that low yields and declining profitability were closely associated with inadequate fertilizer application, highlighting the importance of technical understanding in improving agricultural performance.

Finally, the organizational dimension of the sector was examined by Aydođdu et al. (2021), who studied the factors influencing farmers' willingness to form agricultural unions. Their results show that younger farmers – who tend to have higher levels of education but lower incomes – are more likely to engage in collective organization, particularly to strengthen their bargaining power and access to services.

Taken together, this body of literature reveals the multitude of factors that influence cotton producers' perceptions, including individual characteristics, institutional environments, and technical and organizational dynamics. However, few studies have specifically addressed the perception of national cotton policies in the Francophone Sahelian context, especially in Burkina Faso. This research seeks to address that gap by investigating the determinants of producers' perceptions of cotton policy in the Hauts-Bassins region, and by analyzing how these perceptions shape their involvement in efforts to revitalize the cotton sector.

### **3. Material and method**

#### **3.1. Study Area**

Located in the western part of Burkina Faso, the Hauts-Bassins region is one of the country's main economic and agricultural hubs. It is composed of three provinces – Houet,

Kéné Dougou, and Tuy – with Bobo-Dioulasso, Orodara, and Houndé as their respective provincial capitals. Administratively, the region comprises 3 urban municipalities, 30 rural municipalities, 33 departments, 483 villages, and 45 sectors. It covers a total area of 25,479 km<sup>2</sup>, representing approximately 9.4% of the national territory, with an estimated population of 2,239,840 inhabitants according to the latest figures from INSD (2023).

In addition to its demographic weight, the region stands out for its relatively dynamic economy, driven by industrial, artisanal, and commercial activities. It hosts several production units of marketable goods and services, including the Société Burkinabè des Fibres Textiles (SOFITEX) and the Filière Sahélienne du Coton (FILSAH), both of which play a structuring role in the regional economy (INSD, 2023).

From a physical geography perspective, the region features varied terrain consisting of penepains, plateaus, hills, and small mountains, with altitudes ranging from 250 to 700 meters. The soils are diverse, but two main categories dominate:

- Soils rich in sesquioxides and organic matter, derived from the decomposition of tropical ferruginous soils (whether leached or not);
- Hydromorphic soils, particularly prevalent in the Houet province, which are generally favorable for rice cultivation and vegetable farming.

In Kéné Dougou province, most soils are deep (more than 100 cm), moderately drained, mineral-rich but low in organic matter – conditions well-suited to cash crops such as cotton, sesame, and groundnuts. In Tuy province, arable land covers around 50% of the provincial area, representing significant agricultural potential (INSD, 2023).

The climate of Hauts-Bassins is classified as tropical north-Sudanian, with annual rainfall ranging between 800 mm and 1,100 mm. Two distinct seasons alternate: a dry season and a rainy season. However, the effects of climate change are increasingly evident, leading to more irregular rainfall patterns in both amount and distribution from one agricultural season to the next (INSD, 2023).

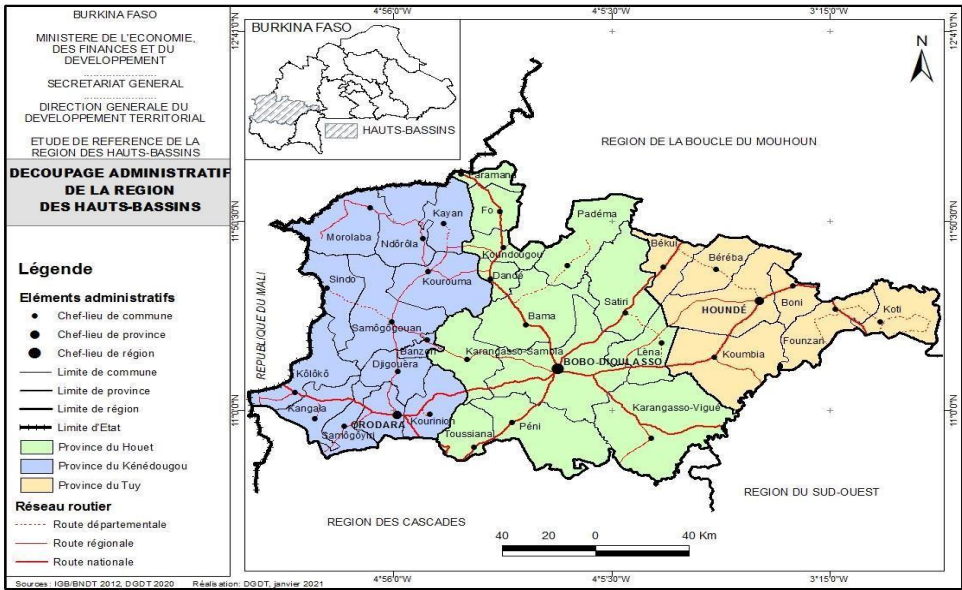
The Hauts-Bassins region is also a major cotton-producing area. Cotton, as a cash crop, is widely accepted by farmers (Schwartz, 1993) and serves as a crucial source of monetary income for rural households (Gafsi & M'Betid-Bessane, 2003). The cotton sector plays a vital socio-economic role: it directly supports about four million people and many others indirectly through upstream (input supply, agricultural credit) and downstream (industrial processing, marketing) activities. Its contribution to GDP is estimated at over 4%, and nearly 14% of the country's export revenues (AICB, 2023).

During the 2023–2024 growing season, 283,845 cotton producers were registered nationwide. However, recent trends in the sector reveal a concerning decline in both

cottonseed production and cultivated area. The production peak was reached during the 2014–2015 season, whereas the lowest level was recorded in 2023–2024. Similarly, the 2017–2018 season saw the largest cultivated area, while 2023–2024 shows a marked decrease (AICB, 2023).

This situation calls for a deeper understanding of the factors driving producers’ gradual disengagement. Beyond technical and economic aspects, this study seeks to analyze how cotton producers in the Hauts-Bassins region perceive national cotton policy. A clearer understanding of this perception will allow cotton companies to better gauge the level of trust they enjoy among producers and to adapt their intervention and communication strategies accordingly.

Map 1: The Hauts-Bassins Region (Burkina Faso)



Source: INSD (2023).

3.2. Data Collection

In Burkina Faso, cotton marketing and ginning are managed by three cotton companies, each operating within a specific geographic zone. The Société Burkinabè des Fibres Textiles (SOFITEX) covers 20 provinces, FASOCOTON operates in 12 provinces, and SOCOMA is active in 6 provinces (AICB, 2008). These companies implement a harmonized national cotton policy coordinated by the Interprofessional Cotton Association of Burkina Faso (AICB).

This study focused on the SOFITEX zone – the largest and most productive of the three cotton-producing areas – located in the western part of the country. Due to security constraints at the time of the survey, data collection was limited to Houet province, specifically in six villages within the municipality of Léna. This municipality was selected based on two main criteria: (i) its significance in regional cotton production, and (ii) relatively stable security conditions that allowed for safe fieldwork.

**Table 1: Summary of variables and their definitions**

<b>Variables</b>	<b>Description</b>
Perception	Producer’s perception of SOFITEX cotton policy, measured as an ordinal variable: “0 = Poor”, “1 = Good”, “2 = Very Good”.
Gender	Dummy variable indicating the gender of the household head: 1 = male, 0 = female.
Education	Education level of the household head: 0 = illiterate, 1 = literate or primary education, 2 = secondary education, 3 = tertiary or university education.
Age	Age of the household head.
Experience	Number of years the household head has been involved in cotton production.
Credit	Dummy variable indicating access to credit: 1 = has access to other forms of credit, 0 = no access.
Household labor force	Number of household members aged between 15 and 65 years.
Income	Total household income from all sources.
Farm size	Total agricultural land area (in hectares).
Trust in SOFITEX authorities	Social trust in SOFITEX officials: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.
Other cash crop	Dummy variable indicating whether the household grows another cash crop: 1 = yes, 0 = no.
Land ownership	Dummy variable for land ownership rights: 1 = owns land, 0 = does not own land.
Cotton promotion exposure	Dummy variable indicating whether the farmer has ever watched a television program promoting the cotton sector: 1 = yes, 0 = no.
Input distribution fairness	Farmer’s satisfaction with the fairness of input and equipment distribution by SOFITEX: 1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied.

Houet province was chosen based on the assumption that it is representative of the broader Hauts-Bassins region. This representativeness is supported by two key elements: first, agro-climatic homogeneity across the cotton-producing areas of western Burkina Faso;

and second, the uniformity of cotton policy rules and mechanisms, which are implemented identically across the country regardless of the cotton company responsible for farmer support.

The selection of villages within the municipality of Léna was conducted using simple random sampling, following a purposive selection of the municipality itself. In total, a sample of 369 cotton producers was surveyed. The unit of observation was the cotton-producing household, deemed the most appropriate structure for collecting information related to perceptions of agricultural policies, given the central role of the household head in agricultural decision-making.

The survey procedure unfolded in several stages: after randomly identifying a cotton-producing household within a village, interviewers approached the household head, explained the objectives of the study, and requested informed consent to conduct a semi-structured interview. This approach ensured compliance with ethical research standards, particularly regarding confidentiality and voluntary participation.

The sample size was determined using the following formula:

$$n = \frac{t^2 p(1-p)}{e^2}$$

Where:  $n$  = sample size,  $e$  = margin of error (acceptable precision level), set at 5%,  $p$  = proportion of the population, set at 0.6775. According to IFDC (2013), the SOFITEX zone accounts.  $t$  = Student's t-value for a 95% confidence level, which is 1.96

### **3.3. Model Specification**

In this study, the producer's perception is conceptualized as the outcome of a cognitive process of subjective evaluation, shaped by their experience, expectations, personal goals, and socio-professional environment. In other words, a farmer's interest in cotton cultivation and their degree of commitment to this activity are partly determined by how they perceive the prevailing cotton policy.

This approach draws from Appraisal Theory, a psychological framework which posits that emotional and behavioral responses stem from an individual's mental evaluations of a given situation. According to Gardin (2009), such cognitive appraisals are influenced by beliefs, past experiences, personal objectives, and expectations. This theory provides a valuable lens through which to analyze how cotton producers in the SOFITEX zone interpret national cotton policy in relation to their own circumstances.

From this perspective, the farmer is regarded as a rational agent whose decisions align with their perception of both their environment and their individual goals (Brossier et al., 1984). Scherer (2001) formalizes this evaluation process through a perception function:

$$E = f(p, i, c).$$

where:  $p$  represents the relevance or importance of the phenomenon to the individual;  $i$  denotes the coping potential, or the resources and capacities the individual believes they possess to respond to the situation and  $c$  denotes the coping potential, or the resources and capacities the individual believes they possess to respond to the situation.

In this study, we apply this theoretical framework to model how cotton producers perceive the current cotton policy. Perception is measured through a key survey question: *Do producers consider the current cotton policy to be conducive to revitalizing the cotton sector in Burkina Faso?* Respondents were asked to choose among three ordered response categories reflecting different levels of perception: “*poor*,” “*good*,” and “*very good*.”

The ordinal nature of the dependent variable justifies the use of an ordered logit model (also known as an ordered multinomial logit model) for the econometric analysis. This method is well suited for ordered categorical data, as it estimates the cumulative probability that an individual rates a phenomenon at or below a given level, based on individual and contextual characteristics. Unlike standard binary logit or probit models, the ordered logit accounts for the hierarchical structure of the response categories (Harrell, 2015).

Recent studies in agricultural economics have highlighted the relevance of this approach for analyzing the determinants of subjective perceptions or farmers’ attitudes toward public policies or technological innovations (Yarou et al., 2023). In our context, the ordered logit model allows us to relate producers’ perceptions (“*poor*,” “*good*,” “*very good*”) to a set of explanatory variables, including sociodemographic characteristics, farming experience, access to extension services, and participation in farmer organizations.

When the dependent variable is ordinal in nature – that is, qualitative with a natural ordering of categories – a specific econometric approach is required. Among the most suitable methods is the ordered logit model, also known as the Proportional Odds Model (POM) (Grilli & Rampichini, 2014).

Indeed, when a qualitative variable has more than two ordered categories, it is appropriate to use an ordinal polychotomous regression model, which captures the effect of a set of explanatory variables on an ordered response variable (Gillet et al., 2011; Winship & Mare, 1984). This model accounts for both the discrete nature of the variable and the inherent order of its categories.

In the present study, the dependent variable – cotton producers’ perception of cotton policy – is ordinal with three levels: “*poor*,” “*good*,” and “*very good*.” The Proportional

Odds Model is particularly well suited for this context, as it relies on the assumption that the effect of explanatory variables is constant across the different thresholds of the ordinal variable. This assumption, known as the proportional odds or parallel lines assumption, posits that the odds ratios remain the same regardless of the category threshold (Liu & Koirala, 2012).

The basic logistic function of the model is expressed as:

$$f(x) = \frac{e^{(\alpha+\beta x)}}{1+e^{(\alpha+\beta x)}}$$

The cumulative logit function, which expresses the probability of an observation falling in category  $i$  or below, is given by:

$$\text{logit } P(Y \leq i) = \ln\left(\frac{P(Y \leq i)}{1-P(Y \leq i)}\right); i = 1, \dots, k$$

The cumulative logistic model can then be written as:

$$\text{logit } P(Y \leq i) = \alpha_i + \beta_{i1}X_1 + \dots + \beta_{im}X_m; i = 1, \dots, k$$

where:  $Y$  is the ordinal dependent variable,  $X_1, X_2, \dots, X_m$  are the explanatory variables,  $\alpha_i$  is the intercept specific to threshold  $i$  and  $\beta_j$  are the common slope coefficients across thresholds. If the coefficients  $\beta_j$  remain constant across thresholds  $i$ , then the cumulative odds ratios are proportional – this is the key assumption of the model:

$$\text{odds } (Y \leq i) = \exp(\alpha_i) + \exp(\beta_1X_1 + \dots + \beta_mX_m); i = 1, \dots, k$$

This model thus allows for the estimation of how producers' characteristics affect the likelihood of holding a more or less favorable perception of cotton policy.

The Proportional Odds Model has been widely applied in empirical research across various fields, underscoring its relevance for analyzing ordinal qualitative outcomes. For instance, in Canada, Schaafsma and Osoba (1994) used it to assess quality of life among cancer patients by modeling the factors influencing perceived well-being levels. Adejumo and Adetunji (2013) applied the model in Nigeria to examine academic performance among students based on sociodemographic and instructional characteristics. In a different domain, Das and Rahman (2011) used it in Bangladesh to identify key risk factors associated with child malnutrition. These studies demonstrate the flexibility and robustness of the model in analyzing phenomena where responses are ranked according to preference or severity.

### **3.3.1. Model Estimation Using the Maximum Likelihood Method**

The estimation of regression models for ordinal dependent variables is typically based on the maximum likelihood method, a standard statistical approach for evaluating nonlinear

models. This method identifies the parameter values that maximize the likelihood of observing the given sample data (Anderson, 1984).

In the case of the ordered logit model, the cumulative logits are expressed as a function of explanatory variables  $X_i$ , as follows:

$$g_i = \alpha_i + \beta_{i1}X_{i1} + \dots + \beta_{im}X_{im},$$

There are two types of parameters to estimate:

- The threshold parameters  $\alpha_1, \dots, \alpha_{j-1}$ , which define the cut-off points between the different categories of the ordinal dependent variable;
- The slope coefficients  $\beta$ , which measure the effect of a one-unit change in an explanatory variable on the probability of falling into a particular category of the dependent variable.

Under the assumption that there exists an unobserved latent variable  $Y^*$ , representing the producer's true perception, it is assumed that this latent variable has a conditional expectation  $E(Y^*/X) = \beta X$  and a variance normalized to 1. The model then allows for the estimation of the probability that an individual  $i$  falls into category  $j$  of the ordinal variable  $Y$ , using the following equation:

$$P\left(Y_i^* = \frac{j}{X_i}\right) = F(\alpha_j - \beta X_i) - F(\alpha_{j-1} - \beta X_i)$$

where,  $F(\cdot)$  denotes the cumulative logistic distribution function, and the bounds are normalized such that  $\alpha_0 = -\infty$  et  $\alpha_j = +\infty$ , ensuring that  $F(\alpha_0 - \beta X_i) = 0$  et  $F(\alpha_j - \beta X_i) = 1$ .

The likelihood function for the full sample is obtained by multiplying, for each individual, the probability of their observed outcome. It is given by:

$$L = \prod \prod p(Y_i^* = j/X_i)^{d_{ij}}$$

where  $d_{ij} = 1$  if individual  $i$  belongs to category  $j$ , and 0 otherwise. The objective of the estimation is to determine the values of parameters  $\beta$  and  $\alpha_j$  that maximize this likelihood function, while respecting the ordering constraints on the thresholds.

This procedure enables statistical inference on the effects of explanatory variables on the ordinal perception variable, while preserving the hierarchical structure of response categories.

#### **4. Results and Discussion**

The descriptive analysis of our sample (Table 2) highlights several sociodemographic and economic characteristics of cotton producers in the study area. First, producers' ages range

from 20 to 83 years, with an average age of 43. This distribution reflects the intergenerational nature of cotton production, practiced by both younger farmers and older, more experienced producers. It underscores the enduring role of cotton in the rural livelihoods of the region. Regarding experience in cotton farming, surveyed producers reported an average of 13 years of involvement in the activity. Some declared up to 50 years of experience, pointing to a significant accumulation of technical knowledge and social capital surrounding cotton cultivation in the region.

In terms of education, the data reveal a low level of formal schooling among the agricultural population. Over 61% of producers have never attended school, while about 27% are literate, can speak French, or have attained a primary education level. Only 11% have reached secondary education. However, this educational disparity does not appear to significantly influence producers' perceptions of the cotton policy implemented by the cotton company, suggesting that other factors – such as experience or institutional proximity – may be more decisive.

With regard to land, the average area dedicated to cotton cultivation is about 2 hectares per farm, with extremes reaching up to 12 hectares. Total agricultural land per producer averages 4 hectares. This reflects a relative specialization in cotton, which occupies a substantial share of the available farmland.

**Table 2: descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
Age (years)	369	45.72	11.85	20	83
Cotton farming experience	369	13.50	8.85	2	50
Education level (0–3)	369	1.31	1.57	0	3
Household labor force ( $\geq 15$ y)	369	4.67	3.27	0	22
Total farm size (ha)	369	8.79	3.82	3	25
Cotton plot size (ha)	369	2.46	1.74	1	12
Access to other credit (0/1)	369	0.13	0.34	0	1
Trust in SOFITEX (1–5)	369	2.21	1.30	1	5
Other cash crop (0/1)	369	0.75	0.44	0	1
Household income (CFA)	369	1,427,473	386,524	775	2,937,500

**Note:** Education is coded as 0 = no schooling, 1 = literate or primary, 2 = secondary, 3 = tertiary education. Trust is rated on a scale from 1 (no trust) to 5 (full trust). **Source:** Authors survey.

The average number of agricultural laborers per farm is four, indicating a typical family-based labor structure found in rural farming systems. In addition, nearly three out of four producers also grow another cash crop alongside cotton, pointing to a strategic diversification of activities aimed at income security and reducing risks associated with monoculture.

The results also show that over 96% of cotton producers surveyed are native to the region. This strong local anchoring of cotton production partly explains the concentration of large cultivated areas in the hands of resident producers, who generally benefit from better land tenure rights and stronger local support networks. Finally, access to credit remains a critical issue. Aside from the facilities provided by the cotton company, access to agricultural financing is extremely limited: 87% of producers reported having no access to external credit. This limited access can be explained by the collateral requirements of financial institutions, which are often tied to land size. As a result, small-scale farmers with limited landholdings are typically excluded from conventional financing mechanisms.

Table 3 highlights a strong level of disapproval expressed by cotton producers in the study area toward the cotton sector authorities. Nearly three-quarters of respondents report dissatisfaction with the current management of the sector. This widespread discontent reflects a general sense of injustice and economic frustration among local producers.

For the vast majority, cotton cultivation is no longer perceived as a viable pathway out of poverty. On the contrary, many believe that their efforts disproportionately benefit cotton company agents rather than the producers themselves. This economic grievance is expressed in explicit terms: while producers undertake the most labor-intensive stages of the production cycle, the profits are seen as being captured by other actors – often viewed as external or disconnected from local realities. This perception has fueled a crisis of trust toward cotton institutions and calls for a critical reassessment of how value added is distributed across the cotton value chain.

**Table 3: Level of trust in cotton sector authorities (SOFITEX)**

<b>Response category</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative (%)</b>
Strongly disagree	135	36.6	36.6
Disagree	138	37.4	74.0
Neutral	5	1.4	75.3
Agree	64	17.3	92.7
Strongly agree	27	7.3	100.0
Total	369	100.0	100.0

Source: Field survey data.

The results presented in Table 4 show that more than half of the producers (52%) hold an unfavorable perception of the cotton policy implemented by the cotton company in the study area. This critical assessment reflects widespread dissatisfaction with the strategic direction and institutional actions taken to support the development of the cotton sector.

According to respondents, the cotton company does not genuinely act in favor of their socioeconomic advancement or personal fulfillment within the sector. Many producers

stated that they do not identify with the company’s vision, which they perceive as detached from their daily concerns and insufficiently inclusive of their voices in decision-making processes. As a result, they consider that the current policy has been designed without a genuine consideration of their needs and priorities as frontline stakeholders.

However, it is worth noting that, when compared to the strong distrust expressed toward the individuals representing cotton authorities, criticism of the cotton policy itself appears somewhat less severe. This distinction may stem from the more abstract and impersonal nature of the policy, which is viewed as a set of overarching rules and intentions rather than as the direct actions of specific individuals. This suggests a partial dissociation between dissatisfaction with the human management of the sector and the broader strategic framework in which it operates.

**Table 4: Perception level of the cotton policy implemented by SOFITEX**

<b>Response category</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative (%)</b>
Poor	192	52.0	52.0
Good	122	33.1	85.1
Very good	55	14.9	100.0
Total	369	100.0	100.0

Source: Field survey data.

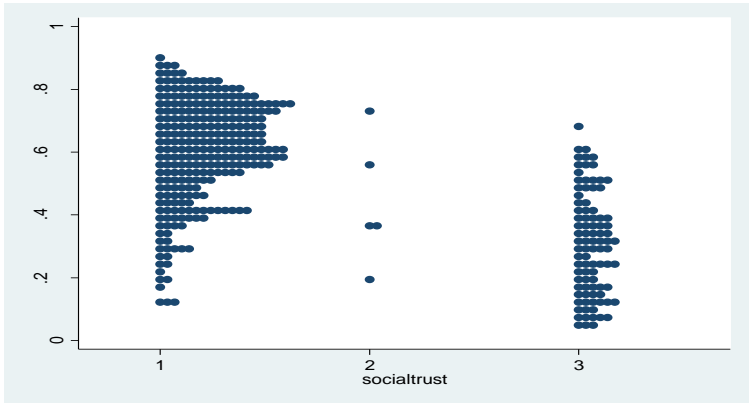
Figure 1 illustrates a clear correlation between producers’ negative perception of cotton sector authorities and their criticism of the cotton policy itself. Most producers who express distrust toward the managers of the cotton company also view the strategic directions implemented in the sector as unsatisfactory. In their eyes, the current cotton policy is seen as a direct extension of decisions made by these authorities – decisions that, according to the producers, are formulated without genuine consultation with those working the land. This critique goes beyond mere institutional mistrust. Some producers report not identifying with their designated representatives within producer unions, arguing that these representatives fail to effectively defend the interests of smallholder farmers – who are often marginalized in consultation and decision-making processes. This sense of exclusion and detachment further reinforces mistrust in the overall functioning of the cotton sector and weakens the trust-based relationship required for any participatory agricultural development policy.

The variance analysis (Table 5) confirms the presence of a statistically significant difference at the 1% level between levels of trust in cotton sector authorities and the producers’ negative perception of the cotton policy. This result suggests that the degree of trust producers place in the authorities significantly influences how they evaluate the current policy framework.

Table 5: Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	6.187	2	3.093	116.85	0.0000
Within groups	9.689	366	0.026		
Total	15.875	368	0.043		

Figure 1: Distribution of “poor” perception of cotton policy by level of trust in cotton sector authorities



The results from the binary logistic regression model (Table 6), applied to producers’ perceptions of cotton policy – recoded as a binary variable (“good” vs. “not good”) – indicate that three explanatory variables have a statistically significant effect on perception: age, experience in cotton farming, and the level of trust in cotton sector authorities.

On one hand, age has a positive and significant effect on the probability of holding a favorable perception. This suggests that older producers are more likely to adopt a conciliatory view of the current cotton policy. A possible interpretation is that older individuals, with a longer historical perspective on the sector, may have developed a form of resilience or tolerance toward its perceived shortcomings.

On the other hand, experience in cotton farming negatively and significantly influences perception. In other words, the more years a producer has spent in the sector, the less likely they are to have a positive view of the current policy. This may reflect a gradual disillusionment in the face of unmet expectations or persistent structural challenges that long-standing producers have encountered over time.

Finally, trust in cotton authorities emerges as a central determinant of perception. The estimated effect is positive and highly significant, indicating that producers who express

trust in sectoral leadership are significantly more likely to evaluate the policy positively. This finding highlights the importance of institutional relationships and the credibility of governance actors in fostering a policy environment conducive to producer engagement.

**Table 6: Binary logistic regression results**

Variable	Coef.	Std. Err.	z	p > z
Age	0.0917 ***	0.0137	6.71	0.000
Education level	-0.0174	0.0777	-0.22	0.823
Cotton experience	-0.0729 ***	0.0168	-4.33	0.000
Household labor	-0.0426	0.0414	-1.03	0.303
Total farm size	0.0656 *	0.0354	1.86	0.064
Credit access	0.0760	0.3694	0.21	0.837
Household income	2.19e-07	3.64e-07	0.60	0.548
Other cash crop	0.4620	0.2863	1.61	0.107
Trust in authorities	0.4666 ***	0.1077	4.33	0.000
constant	-5.3003	0.8825	-6.01	0.000

**Note:**  $p < 0.10$  (\*),  $p < 0.05$  (\*\*),  $p < 0.01$  (\*). Dependent variable: 1 = favorable perception (“good”), 0 = unfavorable (“poor”). **Source:** Author’s computation based on field survey data.

The results from the ordered logistic regression (Table 7) reveal that four explanatory variables significantly influence cotton producers’ perceptions of the cotton policy implemented by the cotton company. These variables are: trust in cotton authorities, the producer’s age, experience in cotton production, and total cultivated land area. Among these, three variables – trust, age, and land area – are positively associated with favorable perceptions, while experience has a negative effect.

Age emerges as a significant determinant of perception. Older producers are more likely to hold a favorable view of the cotton policy. Specifically, each additional year of age increases the proportional odds of falling into a higher perception category (“good” or “very good” versus “poor”) by 7.5%, holding other factors constant. This suggests that older producers may adopt a more conciliatory stance, possibly shaped by resilience developed over time. This finding is consistent with Habtemariam et al. (2016), who reported a positive relationship between age and perception of climate change in the Ethiopian context. It also aligns with Hergon et al. (2004), who found that age significantly influences perception and risk acceptability. In our sample, the average age is approximately 46 years, raising important questions about the increasing role of youth in agriculture. Younger individuals are becoming more involved in family farming – sometimes as household heads – and may gradually influence decisions traditionally dominated by older producers.

In contrast, experience in cotton farming negatively and significantly affects perception. The more years a producer has worked in cotton, the less likely they are to view the policy

favorably. One additional year of experience reduces the likelihood of falling into a higher perception category by 5.4%, all else being equal. This may reflect a growing sense of disillusionment due to accumulated frustrations or prolonged exposure to sectoral inefficiencies. This finding diverges from that of Uddin et al. (2017) in Bangladesh, where experience positively influenced farmers’ perceptions of climate change, and from Yegbeme et al. (2014), who observed a similar positive effect in northern Benin.

Moreover, total cultivated land area has a significant and positive effect on perception. An increase of one hectare raises the probability of being in a higher perception category by 6.4%, *ceteris paribus*. This may be because producers with larger landholdings tend to benefit more economically from cotton cultivation and thus view the policy more favorably. However, this result differs from Uddin et al. (2017), who found a negative relationship between cultivated area and perception of climate change impacts in a coastal context in Bangladesh.

**Table 7: Ordered logistic regression results**

Variable	Odds Ratio	Std. Err.	z	p > z
Trust in authorities	1.517 ***	0.139	4.55	0.000
Age (years)	1.075 ***	0.011	6.83	0.000
Cotton experience (years)	0.946 ***	0.013	-3.93	0.000
Total farm size (ha)	1.064 **	0.033	1.97	0.048
Other cash crop (0/1)	1.443	0.370	1.43	0.153
Education level (0–3)	0.976	0.069	-0.34	0.736
Household labor (≥15 y)	0.979	0.036	-0.58	0.560
Household income (CFA)	1.000	3.18e-07	0.15	0.883
/cut1	4.333	0.745		
/cut2	6.356	0.789		

**Note:**  $p < 0.10$  (\*),  $p < 0.05$  (\*\*),  $p < 0.01$  (\*). Dependent variable: perception of cotton policy (1 = poor, 2 = good, 3 = very good). **Source:** Author’s estimation based on field survey data.

Finally, trust in cotton authorities stands out as the most influential variable. A one-unit increase in the trust index raises the probability of holding a favorable perception by 51.7%, all else being equal. This underscores the pivotal role of institutional trust in shaping producer support for sectoral policies. This finding supports the analysis of Loada (2012), who argued that repeated failure by authorities to fulfill commitments had eroded producers’ trust, contributing to mounting tensions. It is also in line with Konsimbo (2019), who noted that current governance mechanisms undermine trust among actors, thereby reducing the effectiveness of mobilization strategies. These observations are consistent with Flynn et al. (1992), who identified institutional trust as a key determinant of risk perception, especially in complex techno-institutional contexts.

Overall, these findings confirm that cotton producers' perceptions of cotton policy are deeply shaped by a combination of personal (age, experience), structural (cultivated area), and institutional (trust) factors. They call for a renewed reflection on how agricultural policies are designed and implemented, with an emphasis on more inclusive, transparent, and responsive governance that accounts for the diverse expectations of grassroots stakeholders.

## **5. Conclusion and Policy Implications**

This study set out to examine the determinants of cotton producers' perceptions of cotton policy in the Hauts-Bassins region, the principal cotton-producing area in Burkina Faso. Against a backdrop of continued production decline and rising tensions between producers and cotton sector authorities, the analysis provides valuable insight into the underlying causes of producers' progressive disengagement. Using an ordered logit model applied to survey data from 369 producers in the municipality of Léna, the results identified four factors that significantly influence perception: trust in cotton authorities, producer age, experience in cotton farming, and total cultivated land area.

Among these, institutional trust emerged as the most influential factor: the greater the producers' trust in cotton sector leadership, the more favorable their perception of the current policy. Age and farm size were also positively associated with favorable perceptions, while experience in cotton farming had a negative effect – reflecting a sense of disillusionment among more experienced producers. These findings suggest that farmers' perceptions of agricultural policy depend not only on its technical content but, perhaps more importantly, on how it is perceived in terms of credibility, inclusiveness, and fairness in the distribution of benefits. In light of these findings, several policy recommendations emerge to help rebuild trust and foster stronger support for cotton policy. First, greater transparency in the management of the sector is essential. Second, governance should become more participatory by genuinely integrating producers – particularly the most vulnerable – into decision-making bodies. Third, institutional communication must be better tailored to the diverse profiles of stakeholders.

Additionally, improving access to credit and agricultural inputs is critical, especially by addressing the structural barriers that disproportionately affect smallholders. Greater recognition of young people's roles within cotton organizations is also needed, as they are increasingly involved in farm management and may influence the sector's future direction. Ultimately, restoring sustainable momentum in Burkina Faso's cotton sector requires a strengthened dialogue between institutions and producers – one that can support inclusive economic and social progress across rural areas.

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