COTTON PRODUCTION AND CHILDREN SCHOOLING IN BANIKOARA (REPUBLIC OF BENIN)

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ABSTRACT
The objective of this study is to analyze the influence of cotton production on the children education in Banikoara (north Benin), Benin cotton basin. Thus, the study was interested to the various actors involved in the production of cotton and the children education, considered as layers. Qualitative data were collected from these actors. They were then treated through discourse analysis and descriptive statistics using SPSS version 21 software. The results showed that in recent years cotton production has grown exponentially to the detriment of other speculations such as corn, millet, sorghum and rice. Only thirty percent (30%) of children were in school compared to nine (9%) percent among cotton producers. These children, who are obliged to help their parents, are involved in all the farming operations, which prevents them from attending classes properly. It follows massive and successive classes repetitions as well as abandonment. The non-schooling of children being a recurring phenomenon in Banikoara, the mechanization of cotton production or to a lesser extent, a subsidy of labor occasional becomes necessary in order to reverse the tendency.

KEYWORDS: Schooling, Cotton producer; child; Banikoara; Benin

1. INTRODUCTION
Benin is one of poor countries that derive its main food and economic resources from agriculture. Indeed, this sector is mainly characterized by cash crops and food crops. Cotton is also the main cash crop (Adechian et al. 2015) which allows the country to be considered commercially. Cotton exports has increased in recent years. From 61,619 tonnes in 2011, it increased to 172,002 tonnes in 2015. This enabled the country to record a cumulative monetary amount of 423,877 million francs CFA (MAEP, 2017).

Governments therefore give a particular importance through the yields improving. Thus, the success of this sector is based on the subvention of production factors (Thériault and Tschirley, 2014). Producers therefore make increased usage of these factors to fight against pests, diseases and weeds (Gouda et al. 2018). Also, they use family labor, community work and labor, agricultural work based on the agreement (+Thorsen, 2012).

Furthermore, the cash requirement of hired labor leads cotton producers to make much more usage of family labor, which is made up mainly of children and women (Sossou and Fok, 2019). (2008) and de Lange and Zweegers (2006) respectively showed in their study that both boys and girls work in
the cotton field, since the amount of family labor allocated to this production would be a technical factor determining income (Tovignan et al. 2018).

This would not be without consequence for their schooling in the sense that the working conditions of these children range from work after school, during weekends and school holidays to full-time work as hired farm workers (ILO, 2007d; MMYE, 2007; MMYE, 2008a).

The objective of this paper, far from other studies that seek to understand the determinants of child labor on commercial farms, aims to see the influence of cotton production on children's education, specifically in the cotton basin of Benin.

**Theoretical frame**

The rational choice theory (TCR) is in the center of economic and sociological relations (Moessinger, 1992). Indeed, sociology studies irrational behaviors while economics deals with rational choice (Pareto, 1965). Furthermore, today, a part of sociology, composed of the new economic sociology, has recovered a part of the rational choice theory. It is built on pillars such as Gary Becker and James Coleman. This theory is based on the assumption that the agent is endowed with substance rationality. In other words, the individual seeks to maximize his income by taking into account the constraints he encounters. It thus based on a calculation allowing to maximize the satisfaction of the person (Ferrière, 2011). In this study, the rationality of the cotton producer depends on the workforce he uses. The producer opts for the choice of labor that can allow him to have a maximum income.

### 2. MATERIALS AND METHODS

#### 2.1. Study zone

This study was carried out in the department of Alibori, characterized by the country's cotton basin. It has six municipalities, namely Banikoara, Gogounou, Kandi Karimama, Malanville, Ségbana. From all these municipalities, Banikoara has chosen because more than a third of the total cotton production comes from this area (Westerberg, 2017). In addition, cotton is produced on almost 50% in that areas by the populations of this town. Indeed, located between 10 ° 50 and 11 ° 45 North Latitude and 2 ° and 2 ° 55 East longitude. It is limited to the North by o Karimama, to the South by Gogounou and Kérou, to the East by Kandi and to the West by Burkina Faso (Figure 1). It has 246,575 inhabitants including 122,445 men and 124,130 women (50.34%) (RGPH-4).
2.2. Sampling and database
In Banikoara, the districts center and Founougo have been randomly selected. According to this same criterion, the villages of Igrigou and Iboto then of Kori and yinyinpogou have been respectively selected in these districts. Stratified sampling has been used in this study. In fact, three categories of actors composed of the sub-groups of the population in the study area. These are the parents of pupils (cotton producers), teachers and school directors, girls and boys, children under the age of fourteen (14), present in the cotton fields at the time of our single passage (vulnerable victim layer). A total of 85 players make up the size of the sample. Thus, the following tableau provides more information on the sample size.

**Tableau1 : Distribution of actors**

| Actors                              | number |
|-------------------------------------|--------|
| Learners parents cotton producers   | 32     |
| Girls and boys going to school or not | 40     |
| Teachers and directors              | 13     |
| Total                               | 85     |

Source: Field survey, 2018
From these actors, primary data, mainly qualitative and quantitative, have been collected after the exploratory phase using the structured questionnaire and the semi-structured interview guide. They are related to socio-demographic characteristics, types of workforce. Works forced used, types of cultural practices exercised by children, the consequences of children's participation in production work, etc. As for the secondary data, they have been collected through the documentation thanks to the reading grid.

2.3. Data analysis
The information received from the field was analyzed and entered into the Excel spreadsheet, then transported in SPSS version21 software for analysis. Quantitative data have been processed through descriptive statistics and frequency distribution. Furthermore, the speech analysis made it possible to analyze the qualitative data.

RESULTS
3.1. Evolution of cotton production in total production
The following figure 2 shows the evolution of the main characteristic cultures of the commune of Banikoara. From this figure, it appears that five (5) crops are grown by producers in the area. These are cotton, corn, sorghum, millet and millet. However, the graphs in this figure show that in recent years, cotton production has grown exponentially to the detriment of corn production. In other words, cotton producers, also corn producers, are dedicating more cultivable land to cotton production than to corn production. This is understandable because this sector is the best organized in Benin. Thus, these producers receive subsidies on chemical inputs for production and it is on the sale of their product that they make reimbursements.

![Figure 2: Evolution of the main speculations in the town of Banikoara](source: Data analysis results, 2018)

3.2. Socioeconomic characteristics of respondents
School enrollment rate of surveyed children and cotton producers
Analysis results have shown that up to 54% of children in cotton producing households are out of school compared to 46% who are in school. On the other hand, in non-cotton producing households, only 28% of children are not in school, compared to 72% who are in schools. We can therefore conclude that the schooling rate is better in households that do not produce cotton than in households that produce cotton. In addition, the Chi-square test performed gives a probability of significance $p = 0.032$. Which is less than 0.05. There is therefore a significant link at the 5% threshold between the education of children and the production of cotton in Banikoara.

**Figure 3: Schooling of children**

*Source: Data analysis results, 2018*

**Type of labor used**

In Banikoara, cotton producers mobilize several types of labor according to the low mechanization of agriculture. These include family and casual labor. It is important to note that these different labor forces vary from one producer to another and the producer’s perception of schooling. Indeed, the family workforce is mainly composed of the wives and children of the farm manager. In peasant culture, children have an obligation to help their parents. For the latter, it is their duty and it is part of their education. Some producers have even added that in the Baatonu environment (Ethnic bariba), the "child who does not go to the field becomes lazy and will steal later". This perception therefore leads farmers to compel schoolchildren to work in the fields. For example, a farmer parent said "when the children go to the field, the family does not experience famine".

The occasional workforce consists of recruiting workers, often women, men and children, according to the daily tasks. The children surveyed engage in these tasks to buy clothes, shoes and sometimes even means of transportation.
Level of children solicitation

The children participate in the various cultural operations. Figure 4 provides more information. From this figure, the children do all the cultivation operations. However, plowing, sowing, fertilizer spreading and harvesting activities come in strong proportions of 87.50%, 95% and 97.50% and 100% respectively. Then follow the clearing operations (60%) and weeding (45%). Finally, the field processing operation (12.50%).

These activities prevent children from attending classes properly. An investigated school principal made us understand that "the children do not come to follow the reinforcement sessions that we organize because they have to go to the field to help their parents".

![Diagram showing cultivation operations](image)

**Figure 4: Cultivation operations carried out by children**

*Source: Data analysis results, 2018.*

3.3. Consequences of children's participation in cotton production

Although cotton is a potential source of wealth for the people of Banikoara, the fact remains that it is a handicap for the education of children. Indeed, multiple requests from the latter, both for field work and for academic activities create an antagonism of which the main victim is the child. It's a whole coercion mechanism that is put in place to coerce them and make them make themselves more available to their parents. The latter rely heavily on these children to plant large areas of cotton fields. The words of this producer for whom "if the school doesn't go on, give up and come and grow cotton with us because the land doesn't lie" testify to this. Thus, even those who have had the privilege of going to school are regularly disturbed during their academic studies by intense solicitation on the part of parents to support them in field work. One of the children interviewed
stated that "every weekend and Wednesday afternoon, we are in the field, in the evening when we return we cannot learn." The children therefore score poorly at school. Massive and successive repetitions follow. One of the teachers even said that "children often have physical tiredness, many of them doze in class, it is difficult for them to assimilate lessons".

4. DISCUSSION
The cotton sector has undergone major reforms in recent years. The production of this crop is very interesting financially. It’s a real source of income for producers. They are subsidized for agricultural inputs and recover their sales. In Banikoara, production has increased significantly in recent years. In particular, there is a rush for this culture. Several studies have already shown this fact. Indeed, our results go in the same direction as those of (Agbohessi et al. 2011) who concluded in their study in the same area that cotton production is better. Also in the same area (Ayena and Yabi, 2013) have concluded that cotton production is economically profitable for farms. The profitability of this activity is all the more reason why producers are so addicted. In addition, our results showed that the cotton producers surveyed are for the most part not educated. Going down to the children, the same observation is observed. These results show that non-schooling is recurrent in the Banikoara. These results confirm those of (Gnanglè and al. 2012). According to these authors, the enrollment rate is very low in North Benin. (Gouda and al. 2018) had also shown in this same area that almost 75% of producers have never benefited from schooling. This could be the basis of their perception of the help that the children bring them. These producers favor field work rather than school, as this would allow them to reduce the costs linked to occasional labor and to plant large areas. This perception confirms the producer rationality theory which states that the individual seeks to maximize his income taking into account the constraints he encounters. Kindemin and al. (2019) also pointed out that in North Benin, because cotton production is more labor-intensive for the various operations, producers prefer to satisfy the need for labor by multiplying the number of women and Aussians keeping the majority of children on their farm or dropping out of school those who are old enough to work actively in the cotton fields. The schooled minority also find it difficult to cope. They are tired and consequently sleepy in class, which is not without a negative impact on their academic performance, in particular massive and successive repetitions. The time they should devote to learning lessons and practicing is also occupied by field work. In peasant logic, most do not raise their children for school life, but for country life. In other words, family life would revolve around agricultural activities. The arrival of the modern school in the colonial era did not dialogue with these forms of life and placed itself above it (Fidèle, 2017).

CONCLUSION
The results of analyzes have shown that cotton production has changed significantly in recent years. However, the children surveyed and the parents are mainly out of school. These children are involved in the whole cotton production process despite themselves. As a result, they can no longer follow courses properly. This results in massive and successive repetitions and the abandonment of classes. Taking this reality into account in rural areas should lead decision-makers to carry out
awareness-raising and discouragement actions for this form of agriculture in order to emphasize the professionalization of most family farms.

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