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Socio-Economic Impact Of The Rehabilitation Of Cashew Orchards On Producers In The Department Of Bouake In Ivory Coast

Fondjo Ben Bakary
Soro Sibirina
Yao Jean Jaures
N'depo Ossey Robert
Soro Senan
Yatty Kouadio Justin
Agricultural Production Improvement Laboratory; Ufr Agroforestry; Jean Lorougnon Guédé University, Daloa, Côte D'ivoire.

Abstract
The cashew tree (Anacardium occidentale L., Anacardiaceae), originally considering that a forest plant, has become a cash crop. National production is growing significantly with the expansion of cultivated areas. However, yields remain low. This study aims to take stock of cashew producers and orchards in the Gbêkê Regions. The target population is all cashew producers. The field survey was conducted from October 20 to December 20, 2023, in four selected sub-prefectures. To this end, 100 producers were interviewed. Men represent 74 % of the population, while women represent 26 %. The majority of the population involved in cashew cultivation is over 45 years of age. The majority of the producers surveyed had no schooling, i.e., 46.70 %. The average yield of cashew orchards is estimated at 362.22 kg/ha with an annual production of 1,927.01 kg. A large proportion of the producers surveyed (94.10 %) have information on rehabilitation techniques. Producers' opinions on rehabilitation vary according to their level of satisfaction with annual production and annual income. 21,80 % of producers are dissatisfied, 44.60 % are somewhat dissatisfied, and 33.70 % are very satisfied. Training farmers in good agricultural practices would also contribute to significantly improving cashew nut production. Furthermore, the technique of rehabilitating cashew orchards requires financial support and good extension services.

Keywords: *Cashew tree, rehabilitation, producers, survey, production.*

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I. Introduction

The cultivation of cashew trees (Anacardium occidentale L., 1753) is one of the rapidly expanding cash crops that represents a significant export opportunity for Africa. Cashew trees also play an important environmental and socio-economic role. The presence of cashew plantations contributes to reducing atmospheric carbon levels and promotes a healthy environment conducive to human development (Yabi et al., 2013). The importance of cashew cultivation and processing is well established in certain West African countries such as Côte d'Ivoire, Benin, Guinea-Bissau, Burkina Faso, Ghana and Togo. Cashew cultivation offers several advantages for rural populations in West African countries. It can be a means of reducing poverty and unemployment in rural areas (Blien, 2008 and Tandjiekpon, 2009). The cashew tree was introduced to Côte d'Ivoire in 1950 as part of a soil conservation policy and a reforestation programme in the northern savannahs (Lebailly et al., 2012; Sinan & N'dri, 2016). Gradually, from a purely ecological perspective, the establishment of cashew orchards has shifted to a socio-economic perspective thanks to the commercialisation of cashew nuts. The cashew industry has experienced significant growth, with an increase in domestic production of raw nuts in Côte d'Ivoire due to strong demand on the international market. It rose from 19,000 tonnes in 1990 to over 700,000 tonnes in 2018, generating export revenues of around 370 billion CFA francs (FIRCA & CCA, 2015). In 2010, cashew nuts became Côte d'Ivoire's third most exported agricultural product worldwide after cocoa and rubber (Koné, 2010). Since 2015, Côte d'Ivoire has become the world's leading producer and exporter of cashew nuts, with more than 944,673 tonnes (CCA, 2024). The cashew nut industry is now one of the main drivers of economic and social development in the northern, central and eastern regions of Côte d'Ivoire. It is an

interesting source of economic growth with the advantage of contributing to the development of rural areas of the country through its potential to generate rural jobs. However, despite the growing importance of this speculation, cashew orchards face numerous structural constraints. The majority of plantations are ageing, overcrowded and unproductive, due to limited cultivation practices and insufficient maintenance. This ageing of orchards, combined with excessive density (often more than 400 trees per hectare, compared to the recommended 100 to 204), leads to a significant decline in productivity (Seydou N et al., 2021). This ageing of orchards leads to increased vulnerability to disease, as well as a deterioration in the quality of the nuts harvested (Arguita D et al., 2022). The rehabilitation technique of reducing the density of cashew orchards could prove to be a relevant solution for restoring productivity and improving the yield of cashew orchards.

II. Materials And Methods

Study area

As part of this study, a survey was conducted in the Bouaké Department, which has a Sudano-Guinean climate. It is a transition zone between the forest zone and the northern savannah. It is characterised by four seasons: a long dry season (November to February), a long rainy season (March to June), a short dry season (July to August) and a short rainy season (September to October). Rainfall varies between 1,200 and 1,500 mm.

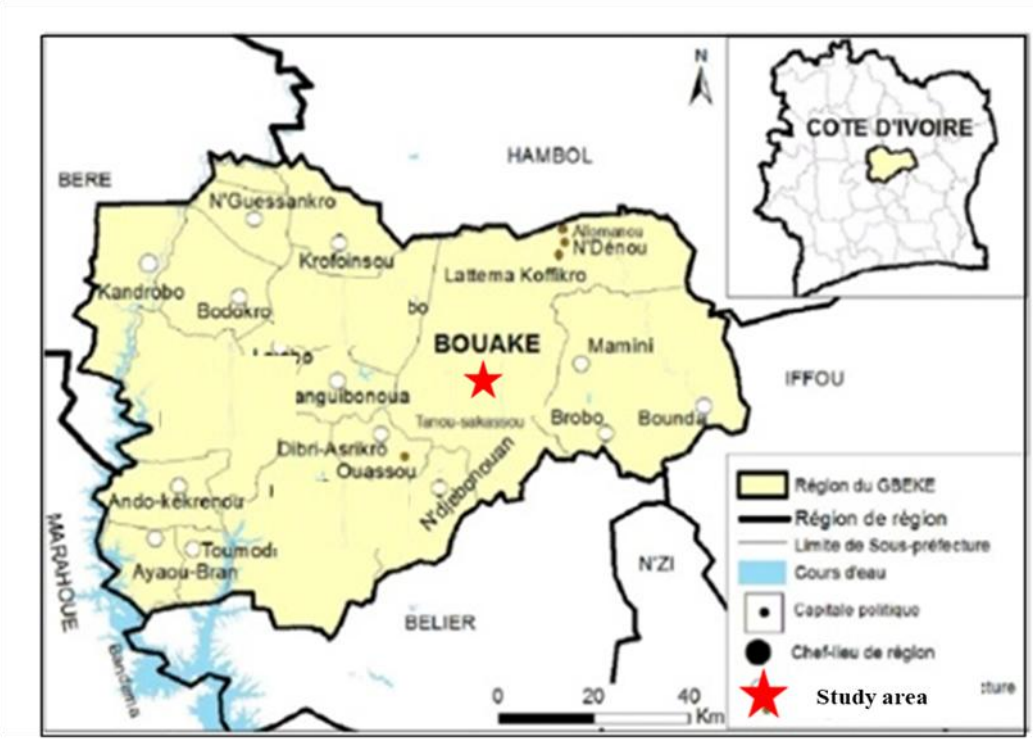

Figure 1: Administrative map of Côte d'Ivoire showing the localities visited (Kouadio, 2017)

Investigation procedure

Two approaches were adopted during this survey. The first approach was an agro-socioeconomic survey. It consisted of randomly selecting producers who were asked to complete a questionnaire. The second approach was an assessment of the health status of the orchards. It consisted of assessing the health status of six cashew orchards (three rehabilitated orchards and three non-rehabilitated orchards).

Agro-socioeconomic survey

The agro-socioeconomic survey was conducted from 20 October to 20 December 2023 in the villages of Agoua-Kongokro and Yapo-Kouakoukro. The survey consisted of collecting data from all producers included in the selected sample.

In order to ensure a high degree of data objectivity, the survey was conducted using a semi-structured questionnaire to collect quantitative and qualitative information (Salhi et al., 2010). A total of 100 producers were interviewed. For this study, direct interviews were chosen as they enable the highest response rate to be achieved for the greatest number of questions (Ghiglione and Matalon, 1978; Combessie, 2001). Due to the lack of knowledge about the exact number of producers in the region, the survey was based on the snowball technique, i.e. the use of individuals as a source for identifying additional units for sample selection. In this type

of sample, also known as a network sample, individuals are selected based on their links to a 'core' group of individuals. For example, the study relies on social networks, friendships and business relationships to recruit new subjects (Fortin, 2008).

Determined quantitative parameters

The quantitative parameters determined concerned:

- the number of women and men with cashew plantations;
- the age of cashew producers;
- the yield (kg/ha) of orchards.

Yield (yd) was calculated by dividing annual production (AP) by cultivated area (CA):

$$yd = AP / CA \quad (1)$$

Determined qualitative parameters

The qualitative parameters collected during this survey focused on:

- the level of education of cashew producers;
- cashew sales strategies;
- the level of knowledge and satisfaction of cashew producers regarding rehabilitation;
- the rehabilitation of cashew orchards on the incidence and severity of major diseases.

Survey on the health status of orchards

This part of the survey involved visits to the various selected cashew orchards. Six plots were visited: three rehabilitated plots and three non-rehabilitated plots. These visits enabled the incidence and severity of major diseases (anthracnose, nut rot, bacteriosis, gummosis, rust) in the various orchards to be assessed.

Assessment of the incidence of major diseases

The incidence of disease was assessed on 10 trees chosen at random from each plantation along the diagonals. The disease incidence rate was estimated from the ratio of the number of diseased trees to the total number of trees inspected for each disease (Cooke, 2006). The incidence of each disease was calculated using the following formula 2 :

$$\text{Disease Incidence (\%)} = (\text{Number of Disease Trees} / \text{Total Number of Trees Inspected}) \times 100 \quad (2)$$

Assessment of the severity index for major diseases

The severity index (Is) of major cashew tree diseases such as anthracnose, bacterial blight and nut rot was assessed on 10 trees using the inverted U method in each plantation. The assessment was carried out on the tree crown. A 1 m² quadrat was placed on two opposite sides of the tree at foliage level. In each quadrat, the number of infected leaf or flower buds and young cashew nuts was determined for each disease. The severity index for each disease was calculated using the following formula (Kranz, 1988):

$$\mathbf{Is} = \frac{\sum (\mathbf{Xi \times ni})}{\mathbf{N.Z}} \quad (3)$$

Where: Is = Disease severity index at the site, Xi = Severity i of the disease on the tree, ni = Number of trees with severity i, N = Total number of trees observed, and Z = Highest severity scale.

The severity of the disease was determined using a visual rating scale ranging from 0 to 9 (Groth et al., 1999; Cardoso et al., 2004), with:

- 0 = No symptoms;
- 1 = 1–5% of the surface infected;
- 3 = 6–10% of the surface infected;
- 5 = 11–25% of the surface infected;
- 7 = 26–50% of the surface infected;
- 9 > 50% of the surface infected.

The severity index (Is) for gummosis was determined using a scale ranging from 0 to 5, where:

- 0 = no symptoms
- 1 = early stages of infection

- 2 = marked symptoms
- 3 = more than half of the trunk affected
- 4 = trunk and branches showing symptoms
- 5 = dead tree

Analyse statistique

The data collected was processed using Sphinx Plus² (V5) software. This enabled the data from the survey to be collected and processed. The processed data was used to determine the numbers corresponding to each parameter considered. These numbers were then imported into an Excel spreadsheet to produce graphs. Statistica 7.1 software was also used to assess the impact of rehabilitation on the health status of cashew orchards. This software was used to perform an analysis of variance (ANOVA) to highlight differences between individuals. When a difference was observed, the least significant difference (LSD) test at a 5% threshold was used to separate the means.

III. Results And Discussion

Results

Distribution of cashew producers by gender and age group

Distribution of cashew producers by gender

Figure 2 shows the distribution of producers by gender. Cashew cultivation is mainly practised by men in the Bouaké Department. Men represent 63% of the population, while women represent a very small proportion, at 37%.

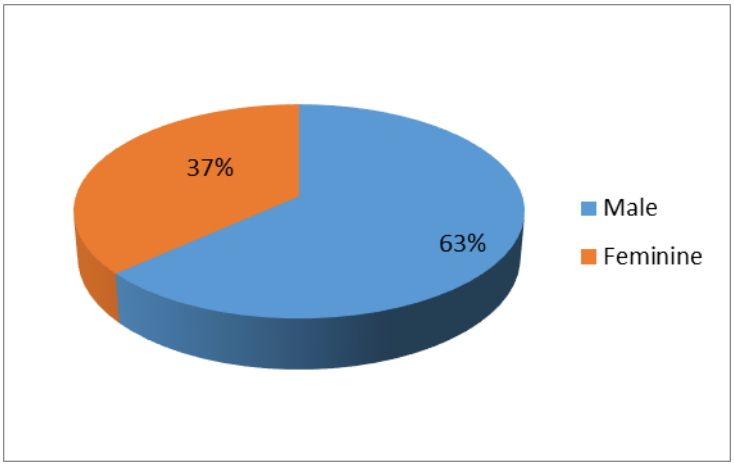

Figure 2: Distribution of cashew producers by gender in the Department of Bouaké

Distribution of cashew producers by age group

Figure 3 shows the distribution of producers according to their age. The population involved in cashew cultivation was producers aged over 45, accounting for 64%. Young people aged between 15 and 35 were very little involved in cashew nut production compared to all other age groups. This age group represents 10 per cent of the producers surveyed.

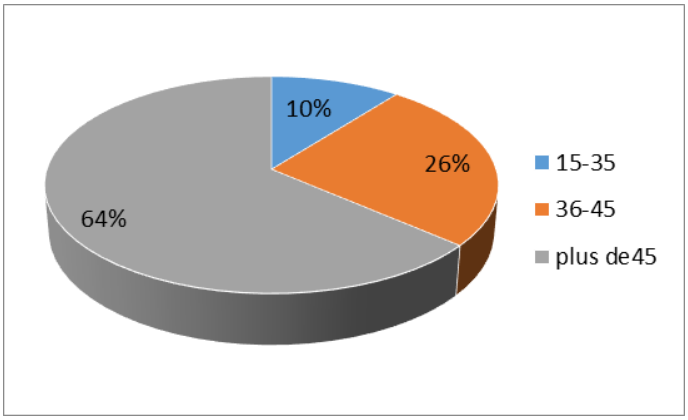

Figure 3: Distribution of cashew producers by age in the Bouaké Department

Distribution of cashew producers according to level of education

The educational level of producers was classified into four categories (Figure 4). The categories were as follows: producers with no schooling (NSc); producers with primary education (Prim); producers with secondary education (Sec); and producers with higher education (Sup). The results revealed that the majority of producers surveyed had no schooling. This category of growers represented approximately 57.40% of the producers surveyed. Producers with an educational background therefore represent 42.60% of the cashew producers surveyed. Among the educated producers, 28.70% have a primary education, 12.90% have a secondary education and 1% have a higher education.

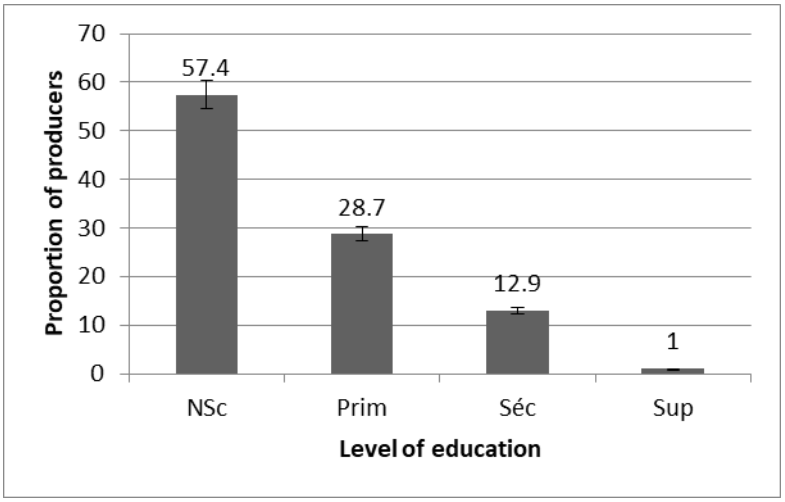

Figure 4: Distribution of cashew nut producers according to level of education in the Department of Bouaké

Level of knowledge and satisfaction of cashew nut producers with regard to the rehabilitation of cashew orchards

Figure 5 shows the level of knowledge and satisfaction of cashew nut producers with regard to the rehabilitation of cashew orchards. The results illustrated in this figure indicate that almost all producers are aware of the rehabilitation technique. Among the producers surveyed, 94.10% said they had been informed about rehabilitation, compared with 5.90% who said they had not. However, opinions differ among producers who are aware of rehabilitation. 33.70% of producers say they are very satisfied, compared to 44.6% who say they are not very satisfied, while 21.8% of producers say they are not satisfied.

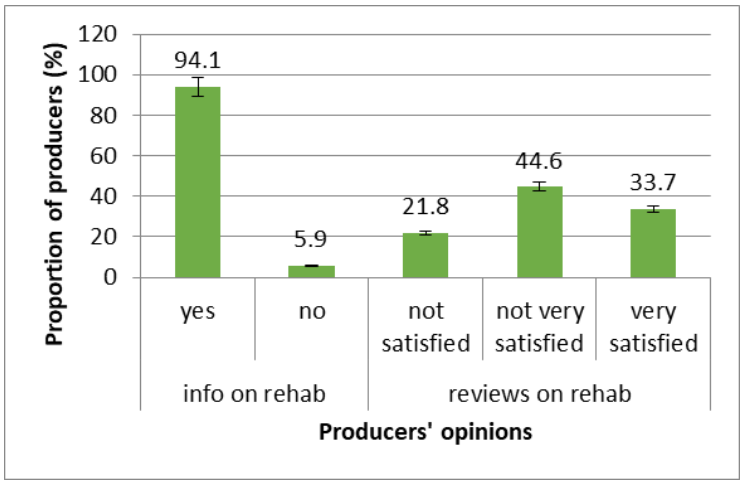

Figure 5: Cashew producer's impressions of the rehabilitation of cashew orchards in the Bouaké Department

Cashew nut marketing chain and payment methods

Cashew nut sales chain in rural areas

Figure 6 shows the proportion of producers according to the method of selling cashew nuts. The results show that there are two marketing channels: on-site or field sales and cooperative sales. On-site sales are the most common method used by producers. Approximately 79.80% opt for on-site sales, compared to 20.20% for cooperative sales.

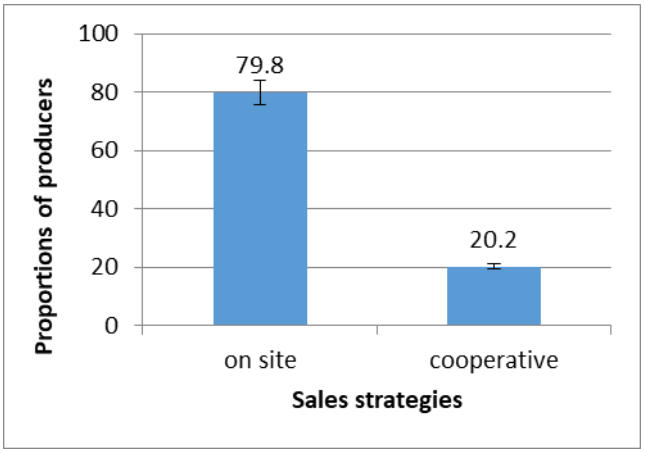

Figure 6: Method of selling cashew nuts in the Bouaké Department

Method of payment for cashew nut producers

The different methods of payment for cashew nuts in the Bouaké Department are illustrated in Figure 7. Observations show that producers use two methods of payment. The different methods of payment used are credit payment and cash payment. Cash payment is the method most requested by producers. This method is used by 88% of producers, while 12% prefer credit payment.

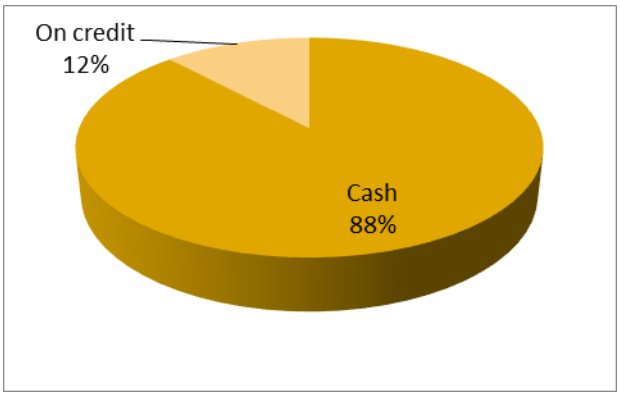

Figure 7: How cashew nuts are purchased in the Bouaké Department

Economic impact of rehabilitation on cashew producers

Effect of rehabilitation on the yield and annual income of cashew producers

The study of the economic impact of rehabilitation on cashew nut producers made it possible to assess producer yields and income. Table I shows the yield and annual income of producers according to the type of orchard. Rehabilitated orchards had the highest yield at 749.66 kg/ha compared to non-rehabilitated orchards, which had a yield of 577.88 kg/ha. Annual income is higher in rehabilitated orchards than in non-rehabilitated orchards. Rehabilitated orchards generated a gain of more than 73,006.6 CFA francs compared to non-rehabilitated orchards.

Table I: Yield and annual income of producers in the Bouaké Department

Annual income	Non-Rehabilitated Orchards	Rehabilitated orchards	F	P
Yield (kg/ha))	577,88 ± 13,64a	749,66 ± 51,48b	31,20958	0,005036
Income (CFA francs)	245601,7 ± 5798,66a	318608,3± 21879,59b	31,20958	0,005036

P: Probability at the 5% threshold; values followed by the same letter on the same line are not significantly different at the 5% threshold according to the Newman-Keul test.

Effect of rehabilitation on the diversity of income sources for cashew nut producers

The different crops associated with cashew trees in the rehabilitated orchards in the Bouaké Department are illustrated in Figure 8. Observations reveal that several crops are associated with cashew trees, such as peanuts, maize, beans, taro, yams and pineapples. Among these crops, the most popular are groundnuts and maize, followed by beans, while the least popular are taro, yams and pineapples. Groundnuts, maize and

beans account for 81%, 79% and 60% respectively of the crops associated with cashew trees. The other crops, taro, yam and pineapple, account for 45%, 30% and 15% of associated crops respectively.

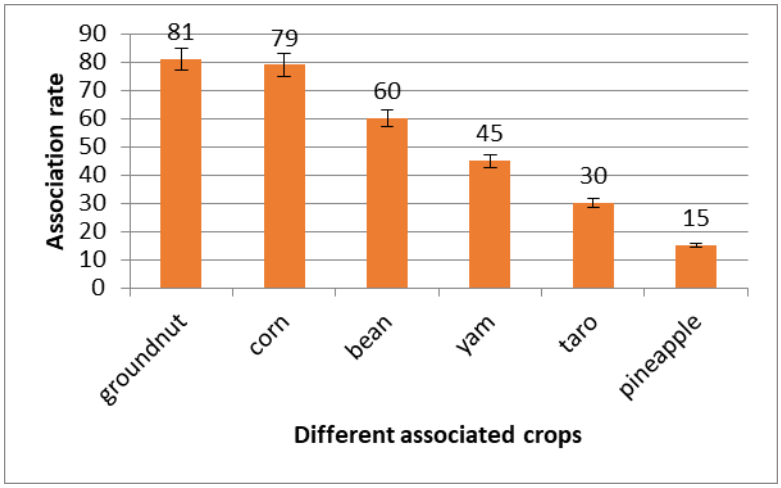

Figure 8: Crops associated with cashew trees in the Bouaké Department

Impact of cashew orchard rehabilitation on the incidence and severity of major diseases

Table II shows the disease attack rate and severity index for cashew trees based on observations in orchards in the Bouaké Department. It shows that the incidence varies depending on the disease and the condition of the orchard. The highest attack rates for major diseases were found in non-rehabilitated orchards. The attack rates were 36.10% for anthracnose, 33.80% for nut rot, 39.10% for bacteriosis, 4.10% for gummosis and 31.90% for rust in non-rehabilitated orchards. In contrast, in rehabilitated orchards, the attack rates were 33% for anthracnose, 23.30% for nut rot, 6.50% for bacteriosis, 1.10% for gummosis and 6.50% for rust. Statistical analysis showed that there is a significant difference in the incidence of nut rot in different orchards. However, there is no significant difference in the incidence of bacterial blight, gummosis and rust.

Disease severity indices also vary from one disease to another and depending on the type of orchard. Rehabilitated orchards had the lowest disease severity indices, with 5.40% for nut rot, 6.30% for bacterial canker, 0.10% for gummosis and 4.30% for rust. In non-rehabilitated orchards, severity indices were higher for anthracnose (6.50%), nut rot (6.30%), bacteriosis (6.50%), gummosis (0.30%) and rust (6.30%). However, the severity index for anthracnose (6.70%) in non-rehabilitated orchards was slightly higher than that observed in rehabilitated orchards (anthracnose, 6.50%). Statistical analysis showed that there is a significant difference in the incidence of nut rot in rehabilitated and non-rehabilitated orchards. However, there is no significant difference in the incidence and severity index of anthracnose, bacterial canker, gummosis and rust.

Table II: Disease attack rates and disease severity index for cashew trees based on orchards observed in the Bouaké Department

Disease	Niveau sanitaire	Vergers non réhabilités	Vergers réhabilitées	F	P
Anthracnose	**Incidence**	36,1 ± 9,6a	33 ± 6,5a	0,611884	0,445502
	severity	6,5 ± 1,3a	6,7 ± 0,6a	0,200000	0,660716
Pourriture des noix	**Incidence**	33,8 ± 8,9a	23,3 ± 5,9b	8,659670	0,009554
	severity	6,3 ± 1a	5,4 ± 0,8a	4,000000	0,062772
Bactériose	**Incidence**	39,1 ± 12,5a	31,6 ± 7,6a	2,364964	0,143627
	severity	6,5 ± 1,3a	6,3 ± 1a	0,160000	0,694446
Gommose	**Incidence**	4,1 ± 6,6a	1,1 ± 2,2a	1,728571	0,207128
	severity	0,3 ± 0,5a	0,1 ± 0,3a	1,230769	0,283654
Rouille	**Incidence**	31,9 ± 18,5a	19,4 ± 15,2a	0,611884	0,138186
	severity	6,3 ± 2a	4,3 ± 2,2a	4,000000	0,062772

P: Probability at the 5% threshold; values followed by the same letter on the same line are not significantly different at the 5% threshold according to the Newman-Keul test.

Discussion

Distribution of cashew producers by gender and age group

Distribution of cashew producers by gender

Cashew cultivation is mainly practised by men. This is because women are more interested in food crops grown on small plots of land and used directly for local consumption. Greater involvement of men in

cashew cultivation has also been reported in the sub-prefecture of Odienné in Côte d'Ivoire by Adaman et al. (2016) and then in Benin by Balogoun et al. (2014). According to these authors, men are more involved in perennial or cash crops such as cashew nut production than women. Women do not participate in land governance. They are more interested in managing the household and, in terms of field work, they generally engage in market gardening and food crops rather than perennial crops (cashew, cotton, mango). This finding is corroborated by Koné (2011), who mentions that women rarely receive or inherit valuable land on a permanent basis with exclusive rights.

Distribution of cashew producers by age group

Cashew cultivation is dominated by a population aged over 45. This could be explained by the fact that younger people do not own plots of land that would allow them to practise the desired cultivation. Furthermore, the high cost of arable land could be an obstacle for young people who do not have the financial means to acquire it. They prefer to turn to other sectors of activity. These results are similar to studies carried out in the Bounkani and Gontougo regions of Côte d'Ivoire by Kambou et al. (2019), which showed that cashew nut producers were aged between 31 and 50. Similar results were also obtained in Benin by Balogoun et al. (2014). According to these authors, the majority of cashew nut producers are aged between 30 and 60. The average age of cashew nut producers found in this study is similar to that recorded by Mole et al. (2000) in Mozambique and by Topper et al. (2003) in Tanzania, who found that the average age of cashew plantation managers was 48 and 51 years old, respectively.

Distribution of cashew producers according to level of education

Very few educated people were found to be involved in cashew cultivation in the two regions surveyed. This situation could be explained by the lack of arable land and the massive displacement of populations to urban areas. It could also be due to a combination of sociological and psychological factors. These results are consistent with those of Kambou et al. (2019), who reported that the population involved in cashew production in the Bounkani and Gontougo regions is very poorly educated.

Level of knowledge and satisfaction among cashew nut producers regarding the rehabilitation of cashew orchards

More producers have information about the rehabilitation technique than those who have no knowledge of it. The popularity of this technique among producers is linked to its effectiveness in improving the yield of cashew orchards. The rehabilitation technique is based on reducing the tree density of cashew orchards that do not comply with the recommended density. This technique, which mainly involves thinning and pruning cashew trees, promotes better light distribution within orchards and discourages intra- and interspecific competition in rehabilitated orchards. Access to light and nutrients promotes better photosynthesis in cashew trees and better absorption of soil nutrients. These results corroborate those of Kodjo & N'djolossè (2013), who showed in their study that rehabilitation promoted an average increase in nut yield of 1.3 kg/tree in 2010 and 6.1 kg/tree in 2011 compared to non-rehabilitated orchards.

Cashew nut sales channel and payment methods for cashew nut producers

Cashew nut producers prefer to sell their products locally rather than through cooperatives. Local purchases allow them to receive their money immediately, whereas cooperatives initially purchase the product on credit. They often wait until the order arrives before paying, several months after the sale. This result is consistent with that of Konan and Ricau (2010). They reported that buyers who work directly in the field with producers sometimes act as creditors to producers. These buyers generally grant emergency loans to the most needy producers. Producers' lack of interest in cooperatives is thought to be due to the long wait before receiving payment after the sale. This finding is similar to a study conducted by Sutter (2010), which reports that group sales are far too fragile compared to the efficiency of the commercial network. Indeed, the time it takes for the producers' representative to find a buyer, then contact their members and finally organise the collection is often too long for producers in need. By then, they will have already sold their nuts individually to local trackers.

Effect of rehabilitation on the yield and annual income of cashew nut producers

The rehabilitated orchards generated a profit of over 73,006.6 CFA francs compared to the non-rehabilitated orchards. Cashew cultivation remains profitable, which is why most farmers place particular importance on it compared to other cash crops. Adegbola and Arouna (2005) showed in their reports that cashew cultivation is financially profitable. For them, in rural areas, earning such an income not only supplements food reserves but also helps to cover occasional expenses. Tuo (2007) reports that one of the main

advantages of cashew cultivation is its economic profitability and that the sale of cashew nuts is an important source of income.

Effect of rehabilitation on the diversity of income sources for cashew nut producers

The rehabilitation of cashew orchards has led to greater diversity in crops grown alongside cashews. These crops, which are mainly food crops or staple foods, provide other important sources of income for producers. Indeed, these products, which are in high demand on local markets, are often sold at very high prices. These results corroborate those of Nogodji et al. (2022), who indicate that during periods of scarcity, certain products such as yams can be sold for around 600 F/kg and peanuts for 13,000 F/kg. These crops associated with cashew trees in rehabilitated plantations therefore guarantee financial stability for producers before the cashew nut production phase. These products, which are not intended solely for sale, also serve as food for producers. They therefore contribute to the food security of cashew nut producers. These observations are similar to those of the AfDB (2015), which states that food crops contribute to poverty reduction and food insecurity.

Impact of cashew orchard rehabilitation on the incidence and severity of major diseases

The study of the impact of cashew orchard rehabilitation on the health status of orchards in the Haut Sassandra Region found that non-rehabilitated orchards had, on average, a high rate of pest infestation with a higher severity index for certain diseases. Rehabilitated orchards, on the other hand, had a low average rate of pest infestation. The symptoms of the various diseases observed in the orchards visited were linked to anthracnose, flower blight, leaf blight, nut rot, bacterial diseases, gummosis and rust.

These results are consistent with those of Soro et al. (2020), who showed that the level of pests increases with planting density. It remains lower for all orchards with a density of 100 trees per hectare. Maintaining a density of 100 trees/ha with good regular maintenance of the orchard improves the level of health. This can be explained by the fact that weeds are sometimes vectors of certain parasitic diseases of the cashew tree.

IV. Conclusion

The results of this study showed that cashew nut producers in the Bouaké region are generally men over the age of 45. These producers are generally poorly educated and sell their products locally. A large number of these producers have knowledge of rehabilitation and the satisfaction rate is high. Rehabilitation has several advantages: it improves production, yield and the health of orchards. The rehabilitation of cashew orchards also contributes to financial stability and guarantees food security for producers. Furthermore, the technique of rehabilitating cashew orchards requires financial support and guidance for producers.

Acknowledgements

This study assessed the socio-economic impact of cashew orchard rehabilitation on producers in the Bouaké Department of Côte d'Ivoire. It is an innovative project in Côte d'Ivoire. It was carried out with financial and material support from the Interprofessional Fund for Agricultural Research and Advice (FIRCA), the Project to Promote Competitiveness in the Cashew Value Chain (PPCA), the Cotton and Cashew Council (CCA) and the National Cashew Research Programme (PNRA).

References

[1]. M. Tandjiékpon, Characterisation Of The Cashew-Based Agroforestry System (Anacardium Occidentale L) In The Savannah Zone Of Benin. Thesis For The Advanced Studies Diploma (Dea), Faculty Of Arts, Humanities And Social Sciences, University Of Abomey-Calavi, Benin, 2005.
[2]. E. Dwomoh, B. J. Ackonor Et J. V. Afun, Étude Des Espèces D'insectes Associées A L'anacardier (Anacardium Occidentale Linn.) Et Leur Répartition Au Ghana. Revue Africaine De Recherche Agricole, Vol. 3, N° 3, Pp. 205-214, 2008.
[3]. Dao, B. A. Bationo, S. Traore, M. Cisse, A.Thiombiano, Biophysical And Socio-Economic Determinants Of Cashew (Anacardium Occidentale L.) And Mango (Mangifera Indica L.) Orchard Management In The Southern Sudanese Zone Of Burkina Faso (West Africa) Sciences Naturelles Et Appliquées Vol. 41, N° 2 (2), 2022.
[4]. Adaman Sinan And N'dri Kouame Abou (2016). Socio-Economic Impacts Of Cashew Cultivation In The Sub-Prefecture Of Odiénné (Côte D'ivoire). European Scientific Journal November 2016 Edition Vol.12, No.32 Issn: 1857 – 7881 (Print) E - Issn 1857- 7431.
[5]. Adegbola Y And Arouna A., 2005. Competitiveness Of The Cashew Nut Sector In Benin: An Analysis Of The Effects On Reference Prices. Papal Inrab Research Results. 12 P.
[6]. Bad, Africa's Performance And Prospects In A Period Of Global Economic Turbulence, Annual Report, African Development Bank Group, (2015) 364 P
[7]. Cca (2023). Cotton And Cashew Council. Communication On The Reform Of The Cashew Sector In Ivory Coast.
[8]. Balogoun I. Et Al., 2014. Characterisation Of Cashew-Based Production Systems In The Main Growing Areas Of Benin. African Agronomy, 26(1), 9–22.
[9]. Topper Et L. J. Kasuga, Transfert De Connaissances Pour Le Développement Durable Des Cultures Arboricoles. Étude De Cas Du Programme Tanzanien De Gestion Intégrée De La Noix De Cajou. Biohybrids Agrisystems Limited, Pp. 229-239, 2003.

[10]. Djaha J. B. A., N'guessan A. K., Ballo C.K. & Aké S. (2010). Germination Of Seeds From Two Elite Varieties Of Cashew Tree (Anacardium Occidentale L.) Intended For Use As Rootstock In Côte D'ivoire. Journal Of Applied Biosciences, 32: 1995-2001.
[11]. Firca & Cca. (2015). Capacity Building For Researchers In The Cashew Sector, The Cotton And Cashew Council And The Agricultural Sector Support Project In Côte D'ivoire. Dr Selection Of Researchers For A National Research Programme On Cashew Trees. Firca & Cca., Technical Data Sheet, 2 P.
[12]. G. M. Ouattara, J-M. Coulibaly, H. Z. Seri, K. Soro, H. Coulibaly, L. F. Toure, S. And Kachelriess-Matthess, Plot Maintenance. Practical Guide To Cashew Nuts. Giz/ Olam, 2012.
[13]. Groth J. V., Ozmon, E. A. & Busch R. H., (1999). Répétabilité Et Relation Entre Les Mesures D'incidence Et De Gravité De La Tavelure Du Blé Causée Par Fusarium Graminearum Dans Des Pépinières Inoculées. Plant Dis. 83 : 1033 - 1038.
I. Balogoun, A. Saïdou, E. L. Ahoton, L. G. Amadji, C. B. Ahohuendo, I. B. Adebo, S. Babatounde, D. Chougourou, H. Adoukonou-Sagbadja And A. Ahanchede, Characterisation Of Cashew-Based Production Systems In The Main Growing Areas Of Benin. African Agronomy, Vol. 1, No. 26, Pp. 9-22, 2014.
[14]. Wonni, D. Sereme, I. Ouedraogo, A. I. Kassankagno, I. Dao, L. Ouedraogo Et S. Nacro, Maladies Des Plants De Noix De Cajou (Anacardium Occidentale L.) Au Burkina Faso. Advances In Plants Agriculture Research, Vol. 3, N° 6, Pp. 1-8, 2017.
[15]. Kambou Et Al. (2019), Structuring Of The Agricultural Population In The Cashew Nut Sector (Anacardium Occidentale (L.) Anacardiaceae) And Characterisation Of Plantations In The Bounkani And Gontougo Regions Of Côte D'ivoire. Article In International Journal Of Innovation And Applied Studies July 2019.
[16]. Kodjo S. & N'djolossè K., 2013. Effect Of Thinning Cashew Orchards And Intercropping On Nut Yields In Benin. Aca Conference, Accra, Ghana, 16–19 September 2013.
[17]. Ricau P., Konan C., 2010. The Cashew Nut Industry In Côte D'ivoire: Stakeholders And Organisation. Mission Report March-July 2010, 43 P.
[18]. Koné M., 2011. Women And Land. Understanding The Issues, Asking The Right Questions And Taking Action On Land In West Africa. 4 P.
[19]. Kouadio Narcisse Y. (2017). Contribution To The Analysis Of Ceramic Production In The Gbèkè Region In Central Côte D'ivoire. Nyame Akuma, No. 88. December 2017.
[20]. Kranz, J., 1988 : Mesurer Les Maladies Des Plantes : 35-50. Dans : Kranz, J., Rotem, J. (Ed.), Techniques Expérimentales En Epidémiologie Des Maladies Des Plantes. Springer, Berlin.
[21]. Lebailly P., Lynn S. & Seri H. (2012). Study For The Preparation Of A Strategy For The Development Of The Cashew Nut Sector In Côte D'ivoire, Diagnostic Report. 8 P.
[22]. Ligban R., Gone L.D., Saly M.B & Biemi J., (2009). Hydrogeochemical Processes And Origin Of Natural Springs In The Daloa Square Degree.
[23]. M. Dagg Et R. G. Tapley, Production De Noix De Cajou Dans Le Sud De La Tanzanie. V. Bilan Hydrique Des Cajouiers En Fonction De L'espacement, East African Agricultural And Forestry Journal, Vol. 1, N° 33, 88-94, 1967.
[24]. N. Silué, S. Soro, T. Koné, K. Abo, M. Koné And D. Koné, Parasitical Fungi In Cashew (Anacardium Occidentale L.) Orchard Of Côte D'ivoire. Plant Pathology Journal, Vol. 2, No. 16, Pp. 82–88, 2017.
[25]. P. N. Mole, Opportunités De Développement Pour Les Petits Exploitants De Cajou Et Liens Avec La Sécurité Alimentaire Dans La Province De Nampula, Mozambique : Résumé Des Conclusions Et Implications Pour Les Politiques, La Recherche Et Les Efforts De Vulgarisation. Rapport De Recherche N° 42e, Ministère De L'agriculture Et Du Développement Rural, République Du Mozambique, 2000.
[26]. Nogodji Jean Yeo And Manlé Soumahoro (2022), Women's Food Production And Revitalisation Of The Agricultural Economy In The Sub-Prefecture Of Bocanda In Central-Eastern Côte D'ivoire. Afrique Science 21(1) (2022) 16–28.
[27]. Salhi S., Fadli M., Zidane L. & Douira A. (2010). Floristic And Ethnobotanical Studies Of Medicinal Plants In The City Of Kenitra (Morocco). Lazaroa 31: 133–146. 2010 Doi:10.5209/Rev_Laza. 2010. V31.9.
[28]. Seydou Ndiaye, Mohamed M. Charahabil And Malaïny Diatta (2021). Characteristics Of Cashew Nut Plantations (Anacardium Occidentale L.) And Economic Determinants Of Farms In Casamance. Article In Vertigo • February 2021 Doi: 10.4000/Vertigo.28723.
[29]. Sinan A. And N'dri K. A. (2016). Socio-Economic Impacts Of Cashew Cultivation In The Sub-Prefecture Of Odienné (Côte D'ivoire). European Scientific Journal, 12: 369–383.
[30]. Soro S., Sanogo S., Ouattara G. M., Silue N., Kone D. & Kouadio Y. J. (2020). Descriptive Analysis And Leading Agronomic Factors Of The Health Status Of Cashew Orchards (Anacardium Occidentale L.) In Côte D'ivoire. European Scientific Journal, 16, (30), 72 P.
[31]. Sutter P, (2010). Analysis Of The Cashew Nut Industry In Burkina Faso: Identification Of Levers For Action To Improve The Value Of Farmers' Resources, Final Year Project Submitted In Order To Obtain An Engineering Degree From The Institut Supérieur D'agriculture De Lille (Lille Higher Institute Of Agriculture) Conferring The Degree Of Master, July, 40p. Accessed On 22/07/25.
[32]. Tuo G., 2007. Analysis Of The Cashew Nut Industry In Côte D'ivoire: Strategies For Development And Poverty Reduction. Master's Thesis In Economics, University Of Bouaké, 66 P.
[33]. Yabi I., Yabi B. F. & Dadegnon S. (2013). Plant Species Diversity In Cashew-Based Agroforests In The Municipality Of Savalou, Benin. Int. J. Biol. Chem. Sci. 7(2): 696–706.