

HOUSEHOLDS ACCESS TO ELECTRICITY IN VILLAGES WHERE ELECTRICITY WAS BROUGHT: CASES OF THE VILLAGES IN THE SUB-PREFECTURE OF KOUASSI-NIANGUINI (NORTH EAST OF CÔTE D'IVOIRE)

ACCES DES MENAGES Á L'ÉLECTRICITÉ DANS LES LOCALITÉS ÉLECTRIFIÉES: CAS DES VILLAGES DE LA SOUS-PRÉFECTURE KOUASSI-NIANGUINI (NORD-EST DE LA COTE D'IVOIRE)

TANO Kouamé

Lecturer- researcher, University Jean Lorougnon Guédé-Daloa

**Corresponding Author : -*

E-mail : tan.kwam@yahoo.fr

Summary

Agricultural income in Côte d'Ivoire have contributed to the urbanization of the rural world. The housing development activities, the acquisition of water pumps and electric facilities underlie the well-being of rural populations. Apart from other indicators of human development, the units of electric energy production and the access equipment are necessary to the electricity consumption in the rural area. Paradoxically, the access rates to electricity are 84.61% and 95.92% in the sub-prefecture of Kouassi-Niangouini, while the rate of subscription to the electricity company is 14.4% (CIE-Tanda, 2021). The survey aims at pointing out the factors of access to electricity in rural households. So to carry out the survey, we resorted to research done in some government structures (Town hall of Tanda, National Institute of Statistics, Ivorian Electricity Company) and we lead investigations among household chiefs with questionnaires. The search for information and data was concluded by interviews with local councillors and electricity agents. The results of the survey show that bringing electricity to this constituency took place in three stages. The connecting and Subscription fees as well as the lack of promotion of the Electricity for All Program are major obstacles to access electricity in the households of the aforesaid villages.

Keywords: *Côte d'Ivoire- Kouassi-Niangouini- access to electricity- connection – Subscription*

Résumé :

En Côte d'Ivoire, les rentes agricoles ont actuellement facilité la rurbanisation du monde rural. Les activités de lotissement, d'acquisition de pompes villageoises et des installations électriques, sous-tendent ainsi le bien-être des populations rurales. Excepté des autres indicateurs du développement humain, les unités de production d'énergie électrique et les équipements d'accès sont indéniables à la consommation d'électricité dans l'espace rural. Le paradoxalement, avec des taux de couverture électrique et d'accès à l'électricité respectivement 84,61% et 95,92% dans la sous-préfecture de Kouassi-Niangouini, le taux d'abonnement à l'électricité de ses villages est estimé à 14,4% (CIE-Tanda, 2021). L'étude vise alors à montrer les déterminants de l'accès à l'électricité dans les ménages en milieu rural. Dès lors, pour réaliser cette étude, nous avons fait recourt à la documentation au sein de certaines structures étatiques (Institut National de la Statistique, Compagnie Ivoirienne de l'Électricité de Tanda) puis, à des enquêtes par questionnaire auprès des chefs de ménages. Un procédé d'entretiens avec les élus locaux et des agents d'électricité, a clos la quête d'informations et de données statistiques. Les résultats de l'étude montrent ainsi que l'électrification de cette circonscription administrative s'est effectuée en trois étapes. Quant aux frais de branchement-abonnement et l'absence de promotion du Programme Électricité Pour Tous, ils demeurent les obstacles majeurs à l'accès à l'électricité dans les ménages des 11 villages électrifiés de ladite entité sous-préfecturale.

Mots clés : *Côte d'Ivoire - Kouassi-Niangouini - accès à l'électricité - Branchement-abonnement*

Introduction

In Côte d'Ivoire, the foundations of power stations, thermal stations and electricity equipment permit to meet the needs in electricity in urban and rural areas. In the past, high-tension cables were mainly intended for urban areas, which lead to the city-dwellers human development. In addition, the current wiring in villages have a part in the appearance of modern comfort in the living environment of famers, and it also gives rise to the creation of profitable businesses. In fact, the villages access to the electricity is the result the double projects of bringing electricity to rural areas and connecting households to the low tension network. Certainly, electricity in rural households is made possible with the help of the Ivorian government, however a financial contribution is required from people in the houses. Besides, bringing electricity to rural areas has been a state control and political activity since 1970. In fact, numerous programmes to bring electricity initiated since then, have presently reached 2,504 areas to 14 remaining areas in 1960 (K. Tano, 2014, p.105). In fact, industrial facilities, administrative services and public lighting underlie the direction of the project toward urban spaces, which have high demands in electric energy due to the town development policy of the country. The electric covering rates have successively moved from 1.25% in 1970, 5.57% in 1980, 12.03% in 1990, and 22.12% in 2000, up to 33.20% in 20021 (EECI¹, 1990 and SOPIE², 2010). These figures present a table of 6,775 areas that received electricity all over the country, that's a covering rate of 79.6% (CI-Energie, www.mpeder.ci). In fact, the connection rate in households moved from 15% in 2005 to 27.5% in 2011 (N. N'Gbra, 2012, p.4). So faced with the need for energy, essential to the development of economic activities, the Ivorian state adopted since 2014 a policy to bring electricity which was called Electricity For All (PEPT). The programme (PEPT) aims at providing easy access to electricity to rural households which face the following problems: housing development, use of modern building materials, old household appliances. The core of the aforesaid programme consists in planning a long term payment of the cost of the electric energy purchase for famers (MPEER, 2006, p.10). However, the expected electric power supply in each household depends on the electrical equipment to be installed in the areas. When these conditions are met, the household has to pay CFA 1, 000 francs for subscription. The remaining is charged over a period of ten years.

Located in North-East of Côte d'Ivoire, in the Gontougo region, precisely in the department of Transua, the sub prefecture of Kouassi-Nianguini was created by the decree n°2010-233 of 25/08/2010. The decree n°2016-1158 of the same year opened the services in the sub-prefecture but the administrative works started on December 20th, 2016. That administrative mission extends over 13 villages, 11 of which are equipped with electrical installations that represents a covering rate of 84.61% to 15.40% which is, the subscription rate in households (CIE Tanda, 2021).

The current survey wonders about the gap between the rate of electrical covering and the rate of household subscription in the aforesaid sub prefecture. The aim of the survey is to list the factors that determine access to electricity in rural areas. So it's about doing the following:

- To show the distribution of electricity in households;
- To analyze the factors that determine access to electricity rural households;
- To explain the reasons for the low rate of access to electricity in rural households.

1. Equipment and methods

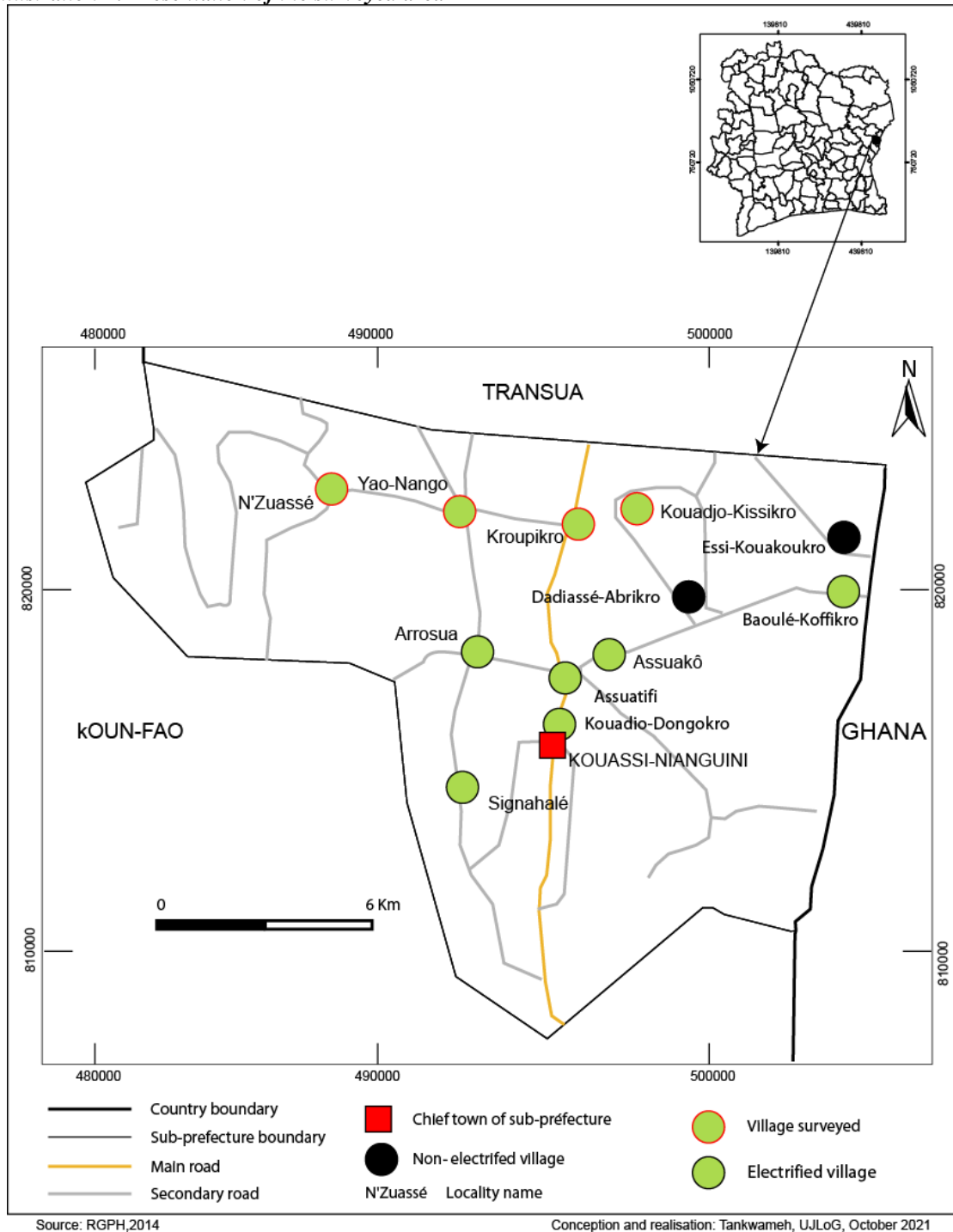
1.1. Presentation of the surveyed area

The Kouassi-Nianguini sub prefecture in the North-East of Côte d'Ivoire is one of the three (03) constituencies of the department of Transua. It was created in 2010 by the decree n°2010-233 of August 25th, 2010 and was opened in 2016 by the decree n°2016-1158 of December 28th, 2016. Kouassi-Nianguini has a surface area of 266 Km² (INS Gontougo, 2017) with a population of 16,872 inhabitants (INS, 2014). It's bordered in the North by the sub-prefecture of Transua, with the department of Koun-Fao in the western and South and Ghana in the East. It's made up of 13 villages, 11 of which have access to electricity (see illustration 1).

¹ Electric Power of Côte d'Ivoire

² Ivorian Electricity Operation Company

Illustration 1: Presentation of the surveyed area



1.2. Techniques of data gathering

The data gathering was conducted in two steps: the search for documentation and inquiry on the ground. The latter was conducted from September 05th to November 30th, 2021. In fact, the search for documentation is based on the summary of the story of the supply of electricity. The research is directed toward university works, the survey reports and through Google, the search engine. These research allowed us to collect data on access to electricity by households. So these sources made it possible to determine the rate of households' access to electricity. As for the inquiry on the ground, we first proceeded with the observation of the installations of access to power (houses, types of wall, power niche, boards and meters) in surveyed villages. Then, we consulted the manager of the Ivorian Electricity Company (CIE) in Tanda in order to know the number of areas supplied with electricity and the number of households that have subscribed to the aforesaid company. Finally, the household chiefs are questioned about the factors that influence their access to electricity. To conduct this last step, we resorted to the data base of the general census of Population and Housing in 2014. The sample is 25% of the household chiefs. The total number being 250 household chiefs, who were questioned base on socioeconomic features (the gender, age, occupation, academic standard, knowledge of the electricity issue). They represent 0.89% of the households in the sub-prefecture. We deem that the results of the survey could be extended to the whole population. The choice of the surveyed villages was based on the date electricity was supplied and the area accessibility (see table 1)

Table 1: Layout of surveyed household chiefs in villages

Villages	Date of voltage application	Number of households	Number of surveyed households
Kouadjo-Kissikro	Dec 18 th , 2015	132	33
Kroupikro	Dec 18 th , 2015	105	26
N'zuassé	June 07 th , 2019	468	117
Yao-Nango	June 07 th , 2019	296	74
TOTAL		1001	250

Source: CIE Tanda, November 2021/ RGPH, 2014

1.3. Data process and analysis

In the final stage of our investigations, the data processing was done using a computer equipped with the following software: SPSS, word, Excel and adobe illustrator CS 11. In fact, SPSS was used for statistical process of data. Word and Excel were respectively used to keyboard tests and create tables and charts. Adobe illustrator helped to make maps.

2. The results

2.1. Factors to access electricity in rural households

The factors to access electricity in rural households depend on indoor installations, the connection of electricity and the type of subscription of the household chief. These operations happen before building walls made of long-lasting construction materials.

2.1.1. The process of bringing electricity to the sub prefecture of Kouassi-Nianguini

Just like many areas around the country, the sub prefecture of Kouassi-Nianguini has experienced a fast growth in terms of bringing electricity to rural areas since 1996. That process in the aforesaid area was achieved in three stages: the isolated stage, the under-voltage stage and the stage of Urgency Presidential Programme (PPU).

The isolated stage started on August 09th, 1996 by bringing electricity to the villages of Kouassi-Nianguini and Kouadio-Dongokro. Before that, power in the villages was provided by a generator installed in Kouassi-Nianguini. This administrative centre of sub-prefecture was joined to its administrative centre department as part of the implementation of the National Program of electricity in Rural areas (PRNER³) in 2015, through a medium tension electric network. That connection also allowed to bring electricity to other villages such as Assuatifi, Kouadjo-Kissikro and Kroupikro on December 18th, 2015, which is part of the “under-voltage” stage. The last stage is about the villages where electricity was brought to in 2017. As a result, 11 villages up to now, have access to electricity, for a total of 13 rural areas (see table 2 below) in that constituency. That represents a covering rate of 84.61% and access estimated to 95.92% (CIE Tanda, 2021).

³ This program aims to provide equitable access to electricity for populations; the balance of electrification in favor of areas with a low rate of access; the electrification of all localities with at least 500 inhabitants at the end of 2019. Its implementation of PRONER made it possible to electrify 1,373 new localities at the end of 2017, including the villages of the Kouassi-Nianguini sub-prefecture (ADB, 2018, p1)

Table 2: Electricity supply in areas in the sub-prefecture of Kouassi-Nianguini

Villages (inhabitants)	Population	Date of supply with electricity
Arrosua	1,983	2019
Assuakô	1,523	Oct 15 th , 2018
Assuatifi	650	Dec 18 th , 2015
Baoulé-Koffikro	1,468	Oct 11 th , 2018
Dadiassé-Abrikro	464	No electricity
Essi-Kouakoukro	224	No electricity
Kouadio-Dongokro	769	August 09 th , 1996
Kouadjo-Kissikro	793	Dec 18 th , 2015
Kouassi-Nianguini	1,738	August 09 th , 1996
Kroupikro	627	Dec 18 th , 2015
N'zuassé	2,81	June 07 th , 2019
Signalalé	2047	March 26 th , 2017
Yao-Nango	1,776	June 07 th , 2019
TOTAL	16,872	

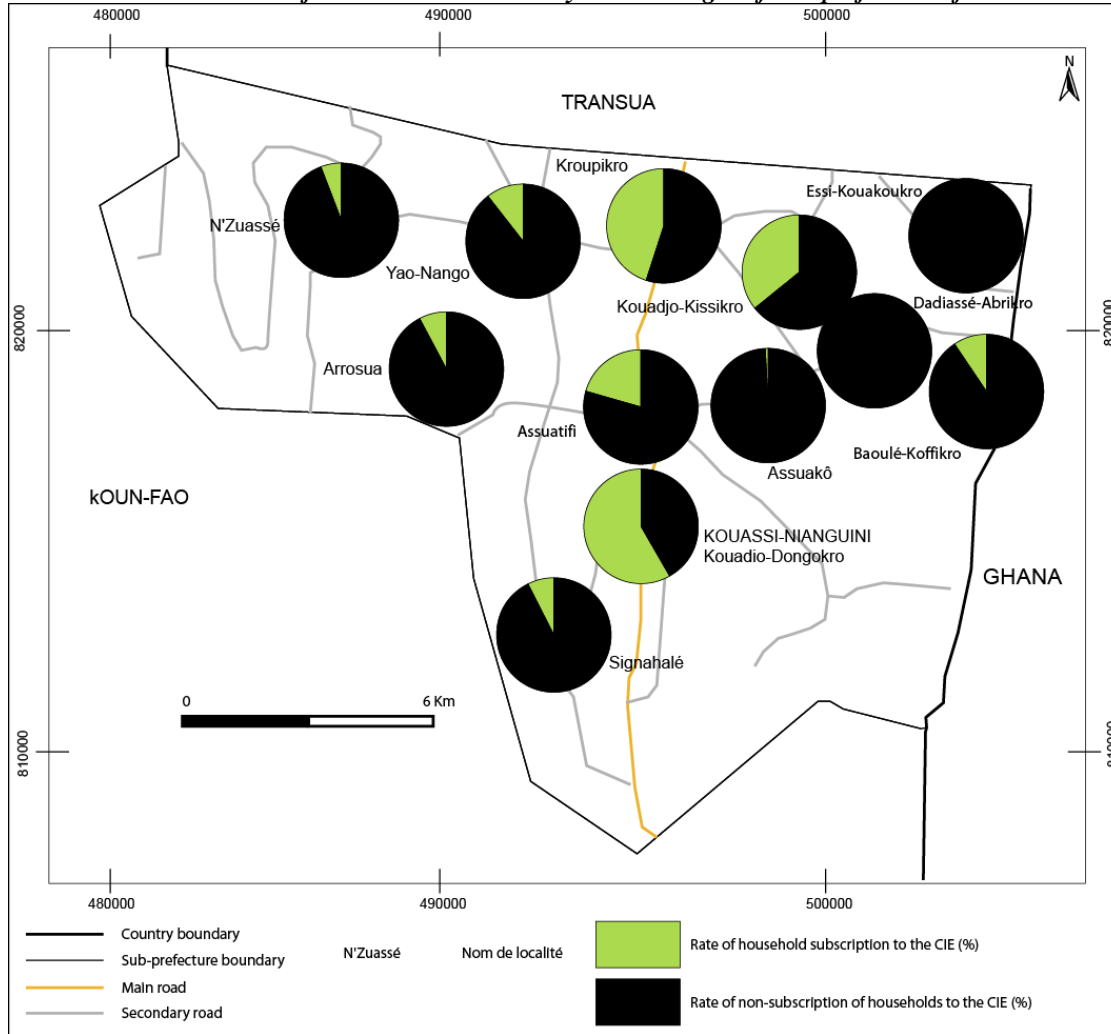
Sources: RGFH, 2014/ CIE Tanda, Novembre 2021

The table 2 above shows that the villages with more than 500 inhabitants are connected to the national electric network. This process of electricity supply grew fast 19 years after the villages of Kouadio-Dongokro and Kouassi-Nianguini were connected to the electric network. This dynamic of bringing electricity was made possible after the administrative center of the sub prefecture and that of the department of Transua were joined. So the villages along the electricity line (Assuatifi, Kroupikro and Kouadjo-Kissikro) were supplied with electricity. The other villages benefited from the PPU project introduced by the Ivoirian state in 2011. In fact, villages with 500 inhabitants were entitled to electricity by the aforesaid project. The villages Dadiassé-Abrikro and Essi-Kouakoukro with respectively 464 and 224 inhabitants aren't yet entitled to receive electricity.

2.1.2. Distribution of electricity and access rate in households

Despite the high rate of electricity covering (84.61%) in the sub prefecture of Kouassi-Nianguini, access to the service is very low. The rate of subscription by households is 15.40% but that rate is different from village to village and depends on the date of electricity supply (see illustration 2).

Illustration 2: Distribution of access rate to electricity in the villages of sub-prefecture of Kouassi-Nianguini



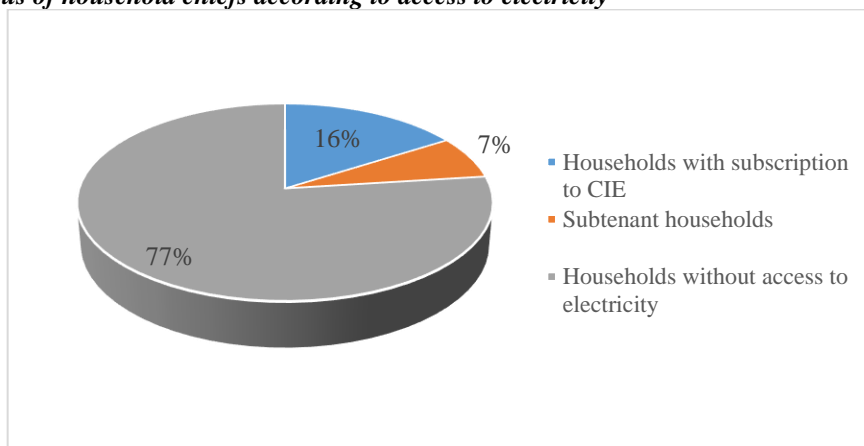
Source: RGPH, 2014 / CIE Tanda, November 2021

Conception and realisation: Tankwameh, UJLoG, October 2021

The illustration 2 above shows that the subscription rate in the villages grows with the passing of time. In fact, Kouassi-Nianguini and Kouadio-Dongokro, which were supplied with electricity have the highest rate of subscription (58.18%). They are followed by Kroupikro (44.76%), Kouadjo Kissikro (35.61%) and Assuatifi (20.37%). These three areas have been connected to the national electricity network since 2015. The areas that were supplied with electricity after 2015 (Yao-Nango, Baoulé-koffikro, Arrossua, Signahalé, N'Zuassé and Assuakô) have the lowest rate of subscription in the sub prefecture, that's 14.40%. The subscription rate of the aforesaid villages is respectively 10.47%, 9.39%, 7.55%, 7.33%, 5.56% and 0.79% (INS, 2014 and CIE Tanda, 2021)

Moreover, in some villages where electricity was brought long before, they practise a grouped subscription in which the first to subscribe became the "local provider". So there exists three types of households in the sub prefecture of Kouassi-Nianguini: households with a subscription to CIE, subtenant households and households without subscription (see illustration 3 below).

Illustration 3: Status of household chiefs according to access to electricity



Sources : RGPH, 2014/ CIE Tanda, November 2021

The illustration 3 above shows that 77% of household chiefs don't have access to electricity compared to 23% with access to energy. Among the number of households with access to electricity only 16% of them have subscribed to the Ivorian Company of Electricity (CIE). This is because some subscribers have become local "dealers" of electricity (which accounts for 7% of subtenant households). This situation exists in households from the same family; it's an informal agreement between the dealer and the subtenant. As for the payment of the bill, it's either shared among the users according to the number of appliances and bulbs or the dealer pays the bill alone to the company.

2.2. The reasons for the low access rate to electricity in households

The low access rate to electricity in the households of Kouassi-Niangui is generally due to some technical, administrative and economic constraints.

2.2.1. The administrative constraints

The connection consists in linking a building to the electric network. This kind of operation concerns houses that were not supplied with electricity before. So, the landlord makes a request to the electricity company (CIE). That request consists of different documents, of which the most important are:

- A topographical map of the plot of land or the construction licence or the land certificate or the allocation letter or any document permitting to locate the property;
- A location sheet (to be filled in at the electricity company);
- The identity cards of the landlord and the tenant.

After the request, the electricity company (CIE) draws up an estimate to find out the cost of the connection. That estimate is based on the inspection of the house to be supplied with electricity and on the distance between the house and the existing electric post. In fact, the connecting of a house takes into account its wall, which must be a hard wall. Once the inspection is completed, an appointment is made with the client to withdraw his/her estimate. Once the amount of the estimate is totally or partly paid, the electricity company agents perform the connection. This establishes a formal contract between the electricity company (CIE) and the household chief. Then the electricity meter is installed. The duration of this operation varies between two and three months depending on the household chiefs. This chancy installation of the electricity meter is bad policy of the "Electricity for All Programme", which accounts for the low subscription rate of households. Some household chiefs, despite having subscribed to the programme, still don't have their electricity meter installed.

2.2.2. Technical constraints

Technical constraints stem from the wiring in the house or building. It's about the installation of switches, sockets, the fuse box and the lamp sockets. The owner of the house is in charge of the costs of the works, which are performed by private electricians. These electricians are either well-known entrepreneurs or some simple jobbers. When the works are completed, SECUREL⁴ comes to inspect the quality of the job. In fact, SECUREL is a government organization which has the mission to verify the condition and quality of the wiring. After the inspection, a certificate of conformity is issued to the owner before electricity is supplied.

The competence of SECUREL is required for the interior installations of all premises for residential use, under the aegis of the interdepartmental commission. That is a fundamental recommendation for the connection of households. In the surveyed villages, most houses were built using traditional materials such as beaten earth locally called "banco" (see table 3 below).

Table 3: Types of houses according to places

Villages	Modern	Semi-modern	Beaten earth (banco)
Kouadjo Kissikro	2.80	3.20	7.20
Kroupikro	1.60	2.80	6.00
N'Zuassé	6.80	15.20	24.80
Yao-Nango	3.60	10.00	16.00
Total	14.80	31.20	54.00

Source: Research, April-June 2021

As it's shown in the table above, 54% of village dwellers sleep in houses made of beaten earth (banco). These accommodations are located in the central part of the village, but tenants are asked to rebuild the houses before starting the process to bring electricity. The other constructions are located on new building sites which have been divided into plots or meet the required standards for electrical installations. In the four villages above, 31.12% of constructions are semi-modern and 14.8% are modern houses. These houses are ready to receive an electric meter from CIE.

In fact, the city development plan such as parcelling out and construction of houses made of modern materials remains the condition to access electricity. Nonetheless it's necessary to build an electricity niche in order to have energy in village households (see picture 1).

⁴SECUREL: Security of Interior wiring, a department of public works

Picture 1: An electricity niche at N’Zuassé



Picture 1 shows a niche built with durable materials. It’s built with three walls and a slab. Beside the niche is an old semi-hard house and electricity pylon. This niche is waiting for a board and a meter to be installed.

Source: Research, June 2021

2.2.3. The economic constraints

All the household chiefs who were interviewed agree that in the quest for electricity, the different operations cost a lot of money. These fees (SECUREL, connection and subscription fees) go up to CFA 130,000 francs. While the fees for the interior installations vary between CFA 40,000 francs and 150,000 francs (see table 4).

Table 4: Cost of interior electricity installation in CFA francs

Number of rooms Typology of houses	[1-2]	[3-4]	[5 + ∞]
Villa	75 000	100 000	150 000
Simple house	65 000	75 000	100 000
Grouped houses	50 000	70 000	80 000
Concession	40 000	55 000	70 000

Source: Research, June-July 2021

Nonetheless, the households in these places could get access to electricity through a niche they have to build (see picture 1 above). The average cost of an individual niche is CFA 50,000 francs. According to the household chiefs, a collective electricity niche costs between CFA 15,000 and 80,000 francs. So some household chiefs put money together (2 or up to 6 people) in order to build the collective niche (see picture 2 below). There are some collective niches which can hold from 4 to 6 electricity meters.

Picture 2: A collective electricity niche in Yao-Nango



Picture 2 shows a collective niche holding 3 electricity meters that belong to 3 household chiefs. The niche is situated in the center of the village. Beside the niche we can see an electricity pylon which is connected to the niche by two cables. Just behind the niche there are old houses built with semi-hard materials and clay bricks. These meters supply the houses with electricity.

Source: Research, June 2021

As a result, a household with a modest house (from 2 to 4 rooms) needs to present a budget for access to electricity. They pay CFA 235,000 francs for concessions, 250,000 francs for grouped houses, 255,000 francs for simple houses and 280,000 francs for villas.

Nonetheless, the interviewed people think that the costs to get electricity are too high for them since these village dwellers receive seasonal revenues. In the assessment of the annual income of the interviewed people, 8.40% of household chiefs (that is 21 people) did not want to answer questions. Some revealed annual income between CFA 30,000 francs and more than one million francs. In fact, 91 household chiefs receive CFA 30,000 francs and 100,000 francs. 58 of them receive between 100,000 francs and 300,000 francs. Those receiving between CFA 300,000 francs and 500,000 francs represent 42 people. Those with annual income between CFA 500,000 francs and one million francs are 31 people and the last group of those earning one million francs and more concerns 7 people (see table 5).

Table 5: Survey on the annual income of interviewed people (in CFA francs)

Annual income	Number	Percentage (%)
No response	21	8.40
[30 000 - 100 000]	91	36.40
[100 000 - 300 000]	58	23.20
[300 000 - 500 000]	42	16.80
[500 000 - 1000 000]	31	12.40
[1000 000 + ∞ [7	2.80
TOTAL	250	100.00

Source: Research, April-November 2021

Table 5 shows that 08.40% of household chiefs in this constituency cannot start a procedure with CIE for an electricity connection and subscription. 36.40% of them can afford a simple subscription and only 16.80% can afford a standard connection and subscription. But 38 individuals can afford to make a connection and subscription and also pay regular bills.

To make electricity accessible to all households, the household chiefs would like the Electricity For All Programme (PEPT) to be extended to all the villages in the constituency. That would allow a great number of families to access electricity, that's 138 household chiefs. This desire concerns 55.20% of the households interviewed (see table 5), not including those who did not declare their income. This programme consists in paying a small sum of CFA 1,000 francs out of the total cost which is CFA 130,000 francs. The rest is to be paid over a period of 10 years (official newspaper n°100, on Monday, December 13th, 2018, p.1267).

As it's put in a political statement on October 25th, 2014: *"with CFA 1,000 francs (€1.53), Ivorian families will now enjoy a connection to the national electricity network. The government offers a package consisting of the connection, the network check, the circuit breakers, the cases and economical light bulbs"*.

3. Discussion

3.1. Economic constraints explaining the low access rate to electricity

The sub-prefecture of Kouassi-Nianguini has experienced a high rate of electricity covering (84.61%). The access rate is 95.92%. This rate is way above the national average which is 79.60%. Yet the rate of electricity subscription is low (15.40%). This result is similar to that of our previous survey in the region of Agnéby and in the department of Zoukougbeu. These two areas have experienced low subscription rates compared with the access rate to electricity. The research conducted in these constituencies reveal that the access rate to electricity in the Agnéby region is 92.47%. (K. Tano, 2014, p.128) and it's 50.34% in the department of Zoukougbeu (K.Tano, F.A. Konan, 2021, p.208), compared with the rate subscription rate which is respectively 42.29% and 2.65%.

These low subscription rates are linked to the cost of connection and subscription. The charges are too high for the annual income of the rural populations. This result is proved by K.A. Kouadio (2021), C. Ntagungira (2015), S. Botton (2009), P. Blimp and Cosgrove-Davies (2017). For these authors, the low subscription rate is mainly due to the cost of the connection and subscription. K. A. Kouadio (2021, p.135) says that in Côte d'Ivoire, the costs of the subscription including the connection to the electricity network go up to CFA 150,000 francs while in Togo, the costs amount to CFA 120,000 francs (Ntagungira, 2015, p.19). These charges are applied in rural as well as in urban areas, but poor people in rural areas can't afford them, as said C. Ntagungira. According to P. Blimp and M. Cosgrove-Davies (2017, p.71) these charges are high in comparison to the average income in most African countries. The charges are USD 108 (CFA 60,000 francs) and USD 180 (CFA 100,000 francs) in Niger, USD 78 (CFA 43,335 francs) in Rwanda; USD 148 (CFA 82,225 francs) in Ethiopia; USD 824 (CFA 457,775 francs) in Zimbabwe and USD 1,303 (CFA 723,890 francs) in Gabon for a typical household living 30 meters away from the closest electricity pylon. These expenses represent 4-5 years of the family budget they spend to meet the need for energy in poor families with traditional means (candles, fuel, batteries, generators, etc.) (S. Botton, 2009, p.40). On top of this, you have to add the interior installation charges which amount to 5,000 Rupees in Sri Lanka (CFA 32,680 francs). For a three-room house, the charges are about CFA 150,000 francs, according to V. Kouamé (2002). The reality is different in Côte d'Ivoire, where the charges vary between CFA 75,000 francs and 380,000 francs (Dano, 1993).

3.2. Technical constraints relating to the installation of equipment

The survey also reveals that the low subscription rates in villages are due to the security conditions of the premises to be supplied with electricity. Subscribers are asked to build houses using durable materials. This requirement helps companies in charge of supplying houses with electricity to avoid making multiple unsuccessful connections, white 54.84% of households in our survey area live in houses made of clay bricks. These households are excluded from the commercial policy of energy supply in Côte d'Ivoire. V. Kouamé (2002) shares that view when he says: *"very few places in Côte d'Ivoire have enough modern houses"*. His assertion is based on the information provided by the general population and housing census conducted in 1998. The final results of that census have actually revealed that 40.50% of houses are built with beaten earth, 34.3% are made of hard walls, and 18 % are clay bricks (géobéton) and 4.8% are semi-hard walls (RGPH, 1998).

Conclusion

In the region of Gontougo, the electricity supply in the villages of the sub-prefecture on Kouassi-Nianguini is very notable. The number of villages where electricity was brought grew from 02 in 1996 to 05 in 2015 and reached 11 rural areas in 2019; that's an energy supply rate of 84.61% which allows 95.92% of inhabitants to access electricity. This rate is higher than the average electricity supply rate in Côte d'Ivoire which is 79.60%. Yet, the access rate to electricity in households is very low on account of the administrative delays and especially the excessive cost of the connection and subscription. So we notice that people opt for grouped subscriptions with all the risks these forms of subscriptions entail for people and their property. The population wants the Electricity for All Programme (PEPT) to be promoted in order to allow households to have easy access to electricity.

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