



Research Paper

## Agricultural development on building plots situated at the edge of the Angré-Béssikoi Commune of Cocody (Abidjan-Côte d'Ivoire)

COULIBALY Sidiki Youssouf

Lecturership-Research

Institute of Tropical Geography

Felix Houphouët-Boigny University of Abidjan, (Côte d'Ivoire)

### ABSTRACT

*This article concerns agricultural development taking place on urban allotted plots. The purpose first of all is to make a list of the different types of crops that are grown there and the socio-demographical identity of the people who are involved in this urban agricultural practice. Secondly the article aims at showing the strategies used by the farmers to have an agricultural space on allotted plots in an urbanized area. The district area of Angré-Béssikoi situated at the edge of Cocody Commune is the experimental zone chosen to conduct the research on this topic. The methodology used for the collection of data laid emphasis on observation techniques, documentary research, interviews and the use of questionnaires. The study revealed that vegetables were the most cultivated crops and was done mainly by guards, squatters and even plot owners. The findings also show that monoculture and the use of manure from animal excreta enables the sustenance of agricultural development on very small arable allotted plots in the urban zone of Angré-Béssikoi.*

**KEYWORDS:** Cocody, Angré-Béssikoi, Urban farming, Development, Allotted area

*Received 10 Jan, 2021; Revised: 22 Jan, 2021; Accepted 25 Jan, 2021 © The author(s) 2021.*

*Published with open access at [www.questjournals.org](http://www.questjournals.org)*

### I. INTRODUCTION

Farming has always existed in and around towns (Scheromm et al 2014 : 49). It is more visible in the periphery and in front of urbanization zones (Scheromm et Robineau, 2015 : 5). These sites actually partly belong to spaces meant for agriculture zones. However urban expansion gradually nibbles onto space that was initially meant for farming. Hence, agricultural activity in this area has been substituted by the proliferation of industrial activity, composed of construction of infrastructures, equipments and estates existing side by side of the relics of the agricultural landscape in the urban interstice. This phenomenon is visible at the peripheral zone of Angré-Béssikoi in the commune of Cocody. This last space of this Commune to be urbanized is situated in the Northern part of Cocody (Figure 1). It is an allocated zone for building that is strongly flourishing with constructions and showing new equipment for sanitation and schools, new roads for commuting and high and medium -standing houses. More-over, these farm products and cattle breeding abound on the interstices awaiting construction or whose construction are moving slowly on the allotted plots of Angré-Béssikoi. The presence of these agro-pastoral activities in the midst of this peripheral space gives a picture of a village in town of the urbanized entity of Angré-Béssikoi. Consequently, farming mobilizes men and women who daily devote themselves to their agricultural activities. The existence of farm products on plots meant for estate construction in this urban area can be explained from two angles : either by the fact that it is a logical response/solution to the supply of food products needed by the dwellers of this urbanized zone, or the solution to the search for arable land for unemployed producers which is a problem characteristic of city dwellers in the area. In respect of the situation the question that comes to mind is : how do they succeed in developing farming activities on attributed plots meant for estate construction in the urbanized area of Angré-Béssikoi ? From this principal question come three subsidiary ones : What type of products do they grow ? Who are these farmers in the urbanized area ? And finally, How come urban farming is able to be done on allotted plots in Angré-Béssikoi ?

To answer these questions it became necessary to elaborate a working plan.

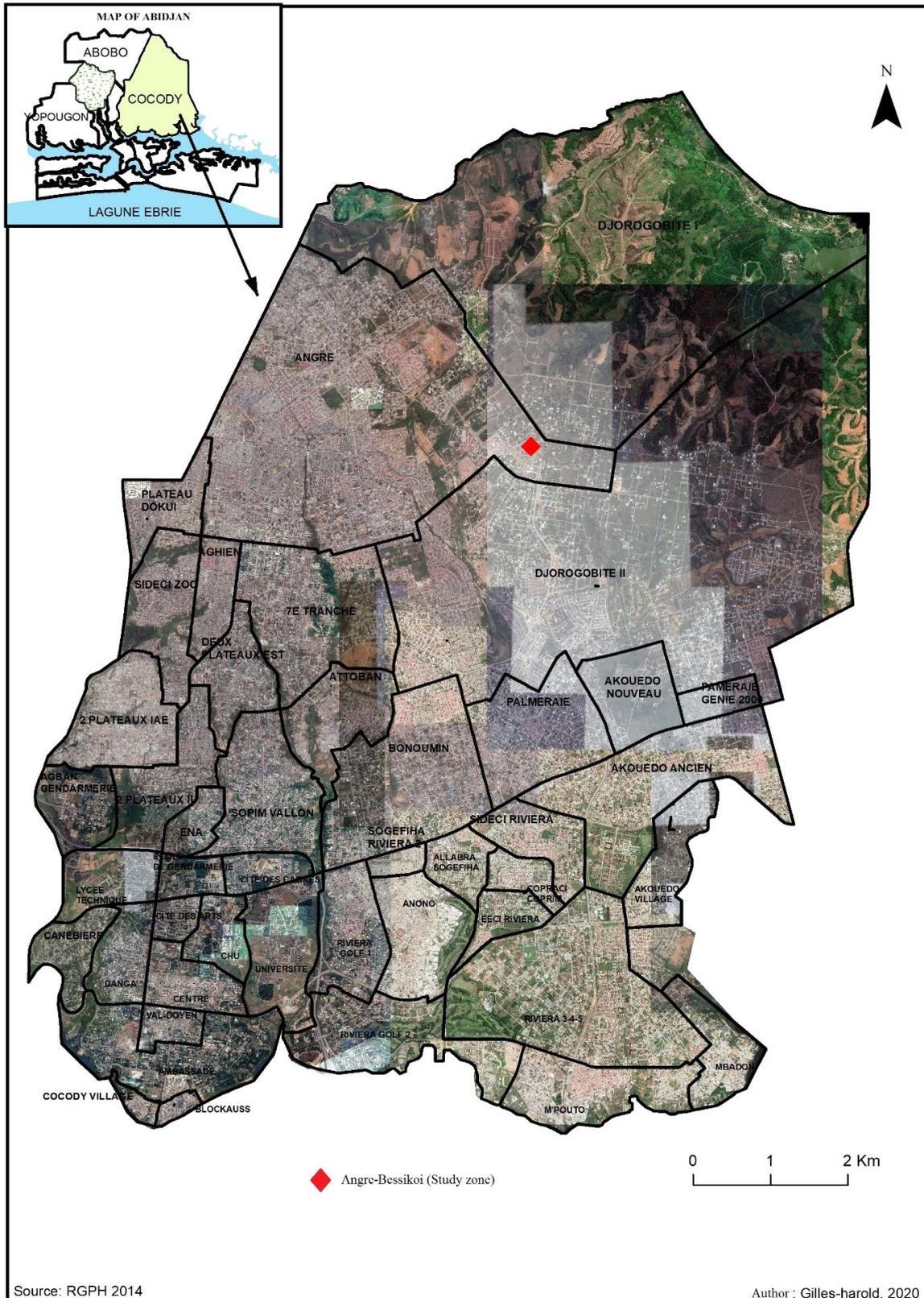


Figure 1 : Site of the zone under study

## II. MATERIALS AND METHOD

This study was done using Qualitative and Quantitative methods. They are meant to understand the strategies used by those concerned to undertake farming activities on the urbanized and allotted plots of Angré-Béssikoi in the commune of Cocody. In order to obtain answers to these questions emphasis was put on the

following : documentary sources, observations, questionnaires and interviews. From the documentary research we obtained information and data from past research work concerning the development of farming or agricultural strategies in urban areas. The observation approach used led to the identification of the area under study during the last but two weeks before the month of September 2020 and facilitated the elaboration of the questionnaires and the interview manual sent to the public during investigations throughout the month of October 2020. The questionnaires were distributed to 53 people who are carrying out urban farming on this site at Angré-Béssikoi. Out of the 53 involved 5 were chosen to be interviewed. The various discussions enabled us to obtain information about the cultivated spaces of this area.

Data obtained from the field studies were treated differently depending on the methods used. This way the information from the questionnaires were subjected to Microsoft Excel software. The matrix of data obtained was then used to create all the different tables and charts. The data obtained from interviews and discussions which were recorded by a dictaphone were transcribed. Further to all the different treatments to which the data obtained were subjected and which are published in the results, our work was organized around the points below :

- The identification of the crops produced and the farmers involved in the development of urban farming.
- The strategies used in urban farming

### **III. RESULTS**

#### **3.1. Identification of the crops produced and the farmers involved in urban farming.**

The determination of crops to be planted on the attributed plots of Angré Béssikoi and the socio-demographical characteristics of the farmers are the parameters concerned in this part of our work.

##### *The types of crops cultivated on the attributed plots of Angré-Béssikoi*

The agricultural products cultivated on the plots vary according to the period of the year. During our field study we noticed that different types of crops were cultivated (photos 1 ; 2 ; 3 and 4) on the allotted plots of Angré-Béssikoi. The list of crops found can be classified into two big groups. First we have Starchy foods : mainly cassava, sweet potatoes and coco-yams : secondly vegetables such as Garden eggs / Egg plants, okro/ Okra, pepper, beans and a type of leafy crop commonly known as "dah". The vegetables observed here can be described as follows : fruit vegetables ( Garden eggs, okro and pepper), leguminous fruits ( Green and red beans ) and the Leafy vegetables ( "dah " and spinach ).

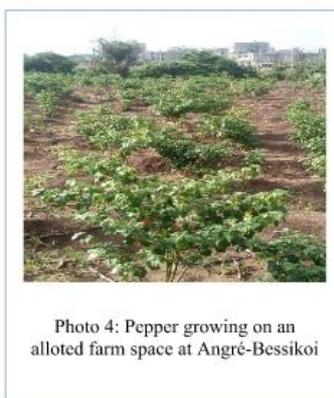
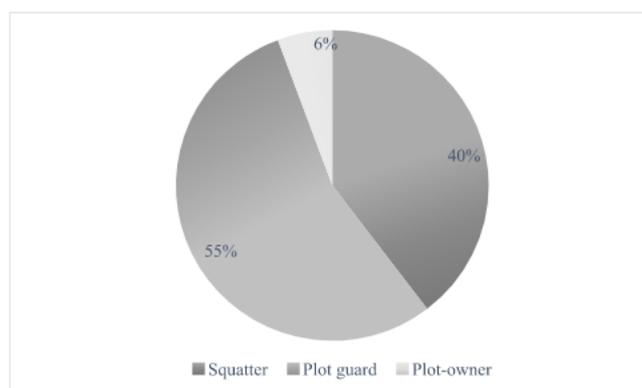


Photo credit : Coulibaly Sidiki Y., 30 octobre 2020

### 3.1.1. Socio-demographical characteristics of the farmers involved in vegetable farming

At the end of the field study we found out three categories of farmers among the vegetable producers. They are : Plot-owners, guards and lastly squatters. The guards make up more than 55% of the farmers involved in urban agriculture at Angré-Béssikoi. The squatters represent the second group (39%) involved in urban agriculture on the attributed urban plots. Finally the land owners are the last group with 6% share of all the farmers involved in agriculture on the attributed interstice of Angré-Béssikoi (Figure 2)



**Figure 2 :** Farmer shares of the urban allotted plots at Angré-Béssikoi

Source : Author construct

Maintaining agricultural products in the areas of Angré-Béssikoi is reasonably intended for the guards and squatters who are resisting by diversifying their activities in order to support their families. Coming from poor families, these urban farmers engage in this part-time activity to increase their income. Thus, according to the interviewees of this group of t agricultural population, they had this to say "We practice agricultural activity in town to resolve our difficult economic situation. It is therefore necessary for us to associate the agricultural activity with odd jobs on neighborhood sites or to look after the plots of certain owners in order to provide for our family needs ". So, the uncomfortable character of these farmers explains the presence of the large number of lot keepers and squatters on the arable land at Angré-Béssikoi. Through this pronounced presence of these two groups of actors, it is interesting to focus on their different social criteria.

### 3.1.2. Urban farmers dominated by adults

The survey shows ages between 18 and 75 years among urban farmers questioned about the interstices at the Angré-Béssikoi area. The distribution of these urban farmers puts them into 4 age groups, of which the under 30s represent 18.86% of respondents. Urba farmers aged between 30-45 and 46-60 constitute the backbone of this agricultural population with 37.73% and 33.96% of respondents respectively. Those aged 60 and over represent 9.45% of urban farmers (Table 1).

**Table 1 :** Ages of the urban farmers

Status of the urban farmers	Age group				Total
	Under 30	30-45	46-60	60 and above	
Guards		11	14	4	29
Plot-owner			2	1	3
Squatter	10	9	2		21
<b>Total</b>	<b>10</b>	<b>20</b>	<b>18</b>	<b>5</b>	<b>53</b>

Source : Author research, 2020

It is an urban agricultural activity accepted by a courageous labor force in the allocated areas of Angré-Béssikoi. From youths to adults the farmers are a potential force for farming which is still at an archaic stage in underdeveloped countries. A good level of education added to this vigorous work force could lead to an innovative process in the practice of urban agriculture at Angré-Béssikoi.

### 3.1.3. Mostly illiterate urban farmers

Among the Urban farmers the illetrates are with no education are the most numerous. They represent 62.26% of urban the farmers questioned in the the allotted areas of Angré-Béssikoi. The Urban farmers with a

primary education level are observed to constitute 24.52% of the urban agricultural population surveyed. The remaining 13.22% of the urban agricultural population has a secondary level (Table 2).

**Table 2 : Literacy levels of the urban farmers**

Status of the urban farmer	Literacy levels			Total
	Illiterates	Primary	High-school	
Guards	20	6	3	29
Plot owners	2		1	3
Squatters	11	7	3	21
<b>Total</b>	<b>33</b>	<b>13</b>	<b>7</b>	<b>53</b>

Source : Author research, 2020

The low level of education observed among those practicing urban farming in Angré-Béssikoi corroborates the status that defines the urban farmers of Angré-Béssikoi. To this end, the farmers interviewed stipulate that: "We did not go far to school, which is why we are obliged to do agriculture in addition to the odd jobs available in this space under construction". The pronounced lack of education of urban farmers is a driving force behind the urban farmer's understanding of the concept of marriage.

### 3.1.4. A monogamous dominance among urban farmers of Angré-Béssikoi

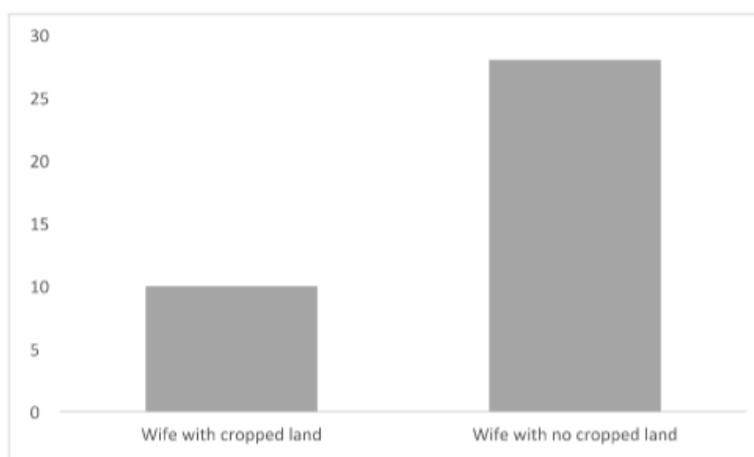
Monogamous marriage is the marital status chosen by the majority of urban farmers in Angré-Béssikoi. They represent 60.37% of respondents in the space studied. The unmarried group ranks second among the farmers met on the allotted cultivated interstices of Angré-Béssikoi. They make up 28.30% of the famers. Finally, the third status which is the polygamous group make up 19.33% of the urban farmers are affected by this marriage rate (Table 3).

**Table 3 : Marital Status of the urban farmers**

Status of urbain farmer	Marital status			Total
	Single	Monogamous marriage	Polygamous marriage	
Guard	2	23	4	29
Plot owner		1	2	3
Squatter	13	8		21
<b>Total</b>	<b>15</b>	<b>32</b>	<b>6</b>	<b>53</b>

Source : Author research, 2020

The high rate of married couples (79.70%) shows the social responsibility of the farmers questioned to cultivate on allocated plots to meet their daily family obligations. In addition to this reason, it should be noted that married farmers benefit from the involvement of their wives in practicing this form of agriculture. In fact, wives help the husband to cultivate the space he owns. The information gathered from some wives suggests that: "the assistance on the farmers make it possible to help our husbands during the periods when the latter are called upon to work on construction sites which abound in the area". In addition to the plot owned by the husband, some women were able to have access to plots (Figure 3) to practice this agricultural activity.



**Figure 3 :** Comparison of wives with or without arable land

Source : Author construct

### 3.1.5. Urban agriculture predominated by ivorians

There are four nationalities of urban farmers working at Angré-Béssikoi but the ivorian community dominates with pronounced with a 52.83% presence. The Burkinabé community comes with 30.18% presence. The Malian and Nigerian communities are the least represented with 11.32% and 5.67% respectively (Table 4).

**Table 4 :** Nationalities of urban farmers at Angré-Béssikoi

Status of urban farmer	Nationalities				Total
	Burkina Faso	Côte d'Ivoire	Mali	Niger	
Guard	11	12	3	3	29
Plot owner		3			3
Squatter	5	13	3		21
Total	16	28	6	3	53

Source : Author research, 2020

The strong presence of Ivorians among the urban farmers of Angré-Béssikoi reflects a lack of formal activities for inhabitants with low or lack of education, who are obliged to involve themselves in precarious activities with ridiculous returns.

## 3.2. The strategies adopted for agricultural development on the interstices of Angré-Béssikoi

### 3.2.1. Urban agriculture developed over very small areas

The allotted plot or land cultivated by the urban farmers are very small. They vary from 300 m<sup>2</sup> to 600 m<sup>2</sup>. The majority (45.28%) of urban cultivators exploit the land areas of 600 m<sup>2</sup>. The cultivated land areas of 500 m<sup>2</sup> are the second size of agricultural land adopted by urban farmers in Angré-Béssikoi. Urban farmers who prefer these areas of 500 m<sup>2</sup> represent 37.73%. The last plot size available to the urban cultivators of Angré-Béssikoi area is 300 m<sup>2</sup>. This area is observed among 16.99% of urban farmers (Table 6).

**Table 6 :** Surface areas of allotted spaces cultivated of Angré-Béssikoi

Status of urban farmer	Surface areas of cultivated allotted spaces			Total
	300 m <sup>2</sup>	500 m <sup>2</sup>	600 m <sup>2</sup>	
Guard	4	11	14	29
Plot owner	1	1	1	3
Squatter	4	8	9	21
<b>Total</b>	<b>9</b>	<b>20</b>	<b>24</b>	<b>53</b>

Source : Author research, 2020

Through these small areas, urban farmers in the study area deploy technical skills which enable them to obtain high yield.

### 3.2.2. Urban farming with agricultural systems favorable to its development

Monoculture is the most observed production system in the allotted land in the study area. This represents 84.90% of urban farmers who are developing this practice on the allotted cultivated plots. The rest of the allotted cultivated land is occupied by cultural associations covering the remaining 15.10% of urban farmers who practice this agricultural technique on the allotted plots at Angré-Béssikoi (Table 7).

**Table 7 : Production system practiced by urban farmers**

Status of urban farmer	Production system		Total
	Monoculture	Mixed culture	
Guard	24	5	29
Plot owner	3		3
Squatter	18	3	21
<b>Total</b>	<b>45</b>	<b>8</b>	<b>53</b>

Source : Author research, 2020

Through these production systems, which are practiced on agricultural areas of less than 1000 m<sup>2</sup>, agricultural intensification is a must for the urban farmers. As a result, urban growers resort to crop rotation at every new production season on the cultivated soil. This way of doing things allows urban farmers to practice several types of products during the year, while observing small rest periods of one month between the series of field renewal. The supply of irrigation water, which is also a contribution to agrarian intensification, is mainly practiced by urban producers who produce vegetables. They store rain water in constructed reservoirs which will be used during the oncoming dry periods of the year. This intensification also results in the use of animal droppings (Table 8) for the enrichment of crop soil. Animal faeces used to fertilize cultivated plots come from chicken and cattle breeding farms which are also found in the study area. Urban farmers prefer cattle excreta (62.26%) to that of chicken (37,74%). According to some of the farmers interviewed they say that: "We have a preference for cattle droppings because they are easier to obtain in Angré-Béssikoi due to the existence of numerous cattle pastures. However, farmers who use chicken faeces are sometimes forced to place orders in Bingerville because of the insufficient number of chicken farms here". From these comments, it should be understood that the distance factor plays a key role in the choice of input from animals.

**Table 8 : Types of animal used by the urban farmers**

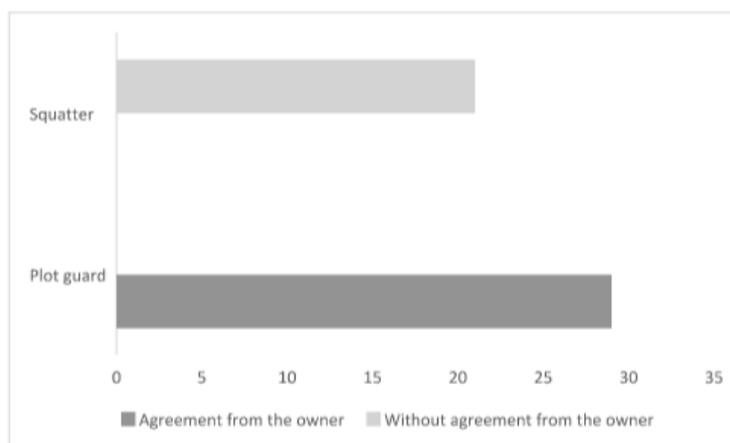
Status of urban farmer	Type of animal droppings		Total
	Chicken excreta	Cattle excreta	
Guard	11	18	29
Plot owner	1	2	3
Squatter	8	13	21
<b>Total</b>	<b>20</b>	<b>33</b>	<b>53</b>

Source : Author research, 2020

Agricultural development is linked to accessibility to land, which is the primary resource for this activity. The accessibility to the allotted plots of Angré-Béssikoi is done in various ways depending on whether or not you are close to a Plot owner.

### 3.2.3. A dominance of lots cultivated by the owner's agreement

The plots cultivated in the Angré-Béssikoi depend on two principles: the agreement or refusal of the owners. By observing these principles, accessibility to the plots cultivated by the owner's agreement is the most used by urban farmers in Angré-Béssikoi. The mode of access to the lots cultivated by the agreement of the owner is obtained by 58% of the urban farmers with the denomination "guard of the plot" against 42% for the accessibility without the agreement of the owner by the urban farmers known under the name of "squatter" (Figure 4).



**Figure 4 :** Mode of access to allotted arable plots

Source : Author construct

The guards (plot keepers, watch-men) find themselves with a form of legality in the mode of access to the allotted lands/plots cultivated in the spaces of Angré-Béssikoi. They are recruited initially for the surveillance of the allotted plots of the areas. Through this status, they seek the agreement of their bosses before devoting themselves to the development of agricultural plots. On the other hand, the "squatters" do not wait for any authorization from an owner before practicing agricultural activity. They engage in the practice of agricultural activity on the land illegally. The 'apparent' seizure of areas made by urban "squatter" farmers " is a source of conflict in the Angré-Béssikoi area.

### 3.2.4. Urban agriculture distinguished by the presence of conflicts

The majority of allotted cultivated plots encounter conflicting problems. 71.69% of urban agricultural producers are affected by a conflictual difficulty. On the other hand, 28.31% of urban farmers are not affected by a problem of conflict. There are three kinds of conflicting problems encountered in allotted cultivated areas. They are centralized between the farmers and other actors living in the Angré-Béssikoi space. The first kind is the conflicts between the cultivators and the breeders, next there is the conflict between the cultivators and the owners of the plot, and finally the conflict between the cultivators and the residents. The most important conflict in this space is that which concerns farmers and breeders. It represents 63.15% of the conflicts identified (Table 9).

**Table 9 :** Types of conflicts encountered in the urban cultivated lands in Angré-Béssikoi area

Status of urbain farmer	Presence of Conflicts				Total
	None	Farmer-Breeder	Farmer-Plot owner	Farmer-Residents	
Guard	11	15		3	29
Plot owner	3				3
Squatter	1	9	8	3	21
<b>Total</b>	<b>15</b>	<b>24</b>	<b>8</b>	<b>6</b>	<b>53</b>

Source : Author research, 2020

The high rate of conflict between farmers and herders manifests itself in the destruction of farmers' fields by cattle which roam the agricultural areas of Angré-Béssikoi. Sherpherd are sometimes overwhelmed by the dispersal of flocks (photo 5) looking for leaves to graze. These inconveniences are materialized by violent clashes between the farmers and the animals of the breeders. In fact, the farmers find themselves attacking the cattle which destroy their fields.



**Photo 5 :** Cattle wandering on an unbuilt plot of land in Angré-Béssikoi  
Photo credit : Coulibaly Sidiki Y., 2020

#### **IV. DISCUSSION**

The issue of urban agriculture arises from a context of rapid urbanization (Robineau, 2014 : 6). In fact, urban sprawl which contributes to the massive loss of agricultural land forces farmers to determine new alternatives to continue living in cities with their families. From these strategies, the issue of access to land for the development of urban agriculture creates a principle of agreement between farmers and urban land-owners. Thus, through this study, the notion of arrangement between these parties has resulted in an agreement which allows the farmer to develop his agricultural activity on the allotted land of the owner. This agreement therefore has enabled the majority of farmers (58%) in the urban allotted space of Angré-Béssikoi to maintain agricultural activity. Following the same logic, Robineau (2014 : 29) shows that the presence of urban agriculture reserves in Bobo-Dioulasso in Burkina Faso is mainly linked to a socio-spatial arrangement. The author explains that the concessions of certain landowners to peasants weakened by the lack of employment favors the sustainability of agricultural activity in areas not yet built with the concrete of modern times. But, it should be noted that the modus operandi of obtaining agricultural land by arrangement is not the only way that urban farmers use to keep their activity in the city. The unequal occupation of cultivable land is a practice used by peasants who have no possibility of being able to access agricultural space by reconciling with land owners in urban areas. The study identified 42% of urbanite farmers who face this difficulty. These farmers who have no ties with a landowner in the urban area of Angré-Béssikoi, are qualified as "squatters" because of their illegal presence on cultivated land. Mougeot (1995 : 8), presents "squattling" farmers as illegals. In his analysis, the author claims that these illegal farmers in the Metro Manila region of the Philippines were able to cultivate the landowners' unusable plots through a presidential decree obliging them to do so.

Engaging in urban agriculture on small plots is now an obligation for urban farmers who must develop technical skills with convincing productivity results. In the urban area of Angré-Béssikoi, farmers have developed their activity on very small areas of between 300 and 600 m<sup>2</sup>. The agricultural intensification which is a solution to this insufficiency, is to encourage the urban farmers to practise a system of monoculture organized around the fertilization of the soils by the excrements of animals, a rotation of the cultivated plants and even a contribution with rainwater retained for watering fields during periods of heat. To this end, the results of Robineau (2014 : 20) confirms the small size of cultivated areas in the urban area of Bobo-Dioulasso. These spaces, materialized by the smallness of the cultivated fields, are characterized by a monoculture with the use of fertilizers for a consequent productivity. Going in the same direction, Dauvergne (2012 : 141), Scheromm et al. (2015 : 4), Blanc (2016 : 8), and Mayol and Gangneron (2016 : 10), believe that the use of manure in urban agriculture not only promotes the reproduction of fertility in heavily used soils but also allows healthy production unpolluted by the absence of chemical fertilizers. In deepening their analyses, these different authors confirm that this form of fertilizer consisting of animal excrement is suitable for market gardening and vegetables. This leads to understanding the existence of an urban agriculture centralized on the development of the production of a multitude of vegetable crops on the cultivated areas of Angré-Béssikoi. This urban agriculture focused on vegetable and vegetable crops is the prerogative of a class of adults. Thus, in the urban area of Angré-Béssikoi, the study revealed that adults are mainly involved in agricultural development at over 90% and consist of a high rate of illiteracy at over 60%. This result is contrary to that of Gucher et al. (2007 : 10). In their study, the authors demonstrated that the agricultural activities developed in the Rhône-Alpes region in France are largely made up of senior citizens. They are retirees therefore with a sufficient level of education to have worked in different sectors of activity. If in the study of previous authors made it possible to identify retired actors in urban agricultural development, in the context of this study, they are people working informally on construction sites or supervising an owner's lot the urbanized area of Angré-Béssikoi who practice urban agriculture. These urban farmers of various origins are mainly made up of ivorians at a rate of over 52%. This

strong representation of nationals demonstrates that urban agriculture is an activity that can solve the problem of employment in a country. This idea has been consolidated by the research of S. Reyburn (2006 : 68), who states that all urban farmers of Montreal in Canada are nationals. They are "Montrealites" by birth or by adoption. They were all recruited to work in the development of a green city regardless of the level of training. This shows the employment opportunities that urban agriculture offers to a society infected with large numbers of unemployed. She was able to hire more men than women in Montreal society according to the Reyburn (2006 : 165) study. But, in terms of perceived income, more women earn more than \$ 25,000 per year compared to men in urban gardening. This situation favors a significant contribution by women to the financial contribution of Montreal households. However, in this research study, married men use their wives only to provide help within cultivated areas. The man still remains the main financial supplier in the household despite the presence of some women who have decided to make this activity a priority.

The coexistence between built spaces and agricultural activities (itinerant livestock farming and cultivated land) in a restricted urban space leads to a climate of conflict between the actors. In fact, the first players affected by the presence of conflict are found in agricultural activity. Thus, we observe a presence of pronounced conflicts between urban farmers and itinerant shepherds. This situation constitutes more than 70% of this type of conflict that fills the urbanized space of Angré-Béssikoi. The conflict between the two parties is sparked by the destruction of the cultivators' fields by the wandering cattle across the area of Angré-Béssikoi, in search of leaves to graze. Gaye (2017 : 9), confirms this result. He specifies that the arrival of breeders in the urban areas in the province of Sissili in Burkina Faso has given rise to numerous conflicts between shepherds and farmers. These conflicts arose from the straying of cattle which causes extensive damage in the farmers' fields. The lack of control of the passages to be taken by the breeders leads the animals to encroach on the farmers' fields. This leads to the destruction of the property of the farmers and leads them to slaughter animals from the herd or even assault the herders to death at times. According to the research of Robineau (2013 : 109), the control of this animal wandering in the urban perimeters of Bobo-Dioulasso in Burkina Faso has reduced the existing conflicts between shepherds and farmers. This reduction has resulted in a separation of the activity perimeters in order to prevent the entry of herds of cattle onto cultivated plots in urban areas. These perimeters of separation between the two activities vary from a radius of 3 to 5 km of circulation for the breeders so that the animals cannot wander in the cultivated spaces of the city.

## V. CONCLUSION

The cultivated allotted urban spaces of Angré-Béssikoi are occupied at different times of the year by different agricultural crops, the most common of which are vegetables of all kinds. The population engaged in the development of urban agriculture on the urban site of Angré-Béssikoi is made up of various categories of people. These are the lot keepers, "squatters" and lot owners involved in this farming practice. They develop a technique based on monoculture for the most part, while using animal excrement as fertilizer on very small agricultural surfaces for the revitalization of cultivated soil. This agricultural system allows the development of crops on this urban allotted space which is also coveted by a presence of breeders with herds wandering on the cultivated areas.

## REFERENCES

- [1]. Blanc, M., Hamman P. et Rudolf, F. (2016). La ville aux défis de l'environnement, In Revue des Sciences Sociales de la France de l'Est, [www.researchgate.net/publication/281325244](http://www.researchgate.net/publication/281325244).
- [2]. Dauvergne, S. (2012). Les espaces urbains et péri-urbains à usage agricole dans les villes d'Afrique sub-saharienne (Yaoundé et Accra) : une approche de l'intermédialité en géographie. Lyon : Ecole Normale Supérieure de Lyon.
- [3]. Gaye, S.B. (2017). Conflits entre agriculteurs et éleveurs dans un contexte de menaces asymétriques au Mali et au Burkina Faso. Sénégal, Sénégal : FES-PSCC Dakar.
- [4]. Gucher, C., Mallon, I., et Roussel, V. (2007). Vieillir en milieu rural : chance ou risque de vulnérabilité accrue ? halshs-00371194.
- [5]. Mayol, P. et Gangneron, E. (Eds) (2019). L'agriculture urbaine : un outil déterminant pour des villes durables. France, France : Les Éditions des journaux officiels Française.
- [6]. Mougeot, L.J.A. (Eds) (1995). L'agriculture urbaine en Afrique d'un point de vue mondial, In Faire campagne en ville : l'agriculture urbaine en Afrique de l'Est. Ottawa, Ottawa : Les Éditions du CRDI.
- [7]. Reyburn, S. (2006). Evaluation de la contribution de l'agriculture urbaine communautaire montréalaise à l'amélioration du cadre de vie. Québec, Québec : Université du Québec à Montréal.
- [8]. Robineau, O. (2013). Vivre de l'agriculture dans la ville africaine. Une géographie des arrangements entre acteurs à Bobo-Dioulasso (Burkina Faso). Montpellier, Montpellier : Université Paul Valéry-Montpellier III.
- [9]. Scheromm, P. et Robineau, O. (2015). L'agriculture intra-urbain à Montpellier (France) et à Bobo-Dioulasso (Burkina Faso), Pour mieux vivre en ville et mieux vivre la ville, In Hayek I, P. Hamman et J-P. Lévy (dir), De la ville durable à la nature en ville. Entre homogénéité urbaine et contrôle social. Regards croisés nord/sud, Villeneuve d'Ascq (13p). Coll. « environnement et société » : Presses Universitaires du Septentrion.
- [10]. Scheromm P., Perrin C. et Soulard C. (2014). Cultiver en ville... Cultiver la ville ? L'agriculture urbaine à Montpellier. Revue Espaces et Sociétés, [www.cairn.info/revue-espaces-et-societes-2014-3-page-49.htm](http://www.cairn.info/revue-espaces-et-societes-2014-3-page-49.htm).