

# AGRICULTURAL INCOME IN THE FACE OF DEVELOPMENT. CASE OF THE BANALIA TERRITORY, DR-CONGO

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*Abstract : This article on "Agricultural income in the face of development; Case of the Territory of Banalia, DR-Congo" aims to identify the level of agricultural income of households living in the Territory of Banalia in relation to the development of this Territory.*

*To achieve this goal, the overall objective is to identify the level of agricultural income of households living in the Territory of Banalia and determine whether it can contribute to the development of this Territory. While the specific objectives are:*

- Know the level of agricultural household income generated by agriculture in the territory of Banalia ;
- Identify the role of agriculture as a factor in the development of this environment ;

*This study allows agricultural households of Banalia to situate themselves in relation to their agricultural income because the monthly agricultural income of a farmer living in this territory is 31,459,4203 FC, far lower than the monthly income of a level D teacher. Living in this Territory which is 103 170 FC. Faced with a population with an agricultural vocation (95.8%), it will be difficult for them to trigger the process of development of the environment. But, they are called upon to provide a great effort by making large fields as well as good breeding while respecting agronomic standards under the supervision of a technician and also diversifying agricultural and para-agricultural activities in order to increase the level of their agricultural income.*

**Keywords-** Agricultural income, Development, Territory and Banalia

## I. INTRODUCTION

During the last three decades, the development of nations or communities preoccupied scientists and political actors. This is how much scientific work has been carried out in the Province of Tshopo in order to identify the development contours of each geographical area in order to put in place ways and means of solving the difficulties that would hinder their take-off towards the development.

As far as we are concerned, we note that for several decades, the donor community has tried to support the recovery efforts of poor States by proposing ready-to-wear models in the form of economic recovery plans, the program structural adjustment program, the social sector adjustment program, etc. The elaboration of all these plans and programs knows only a weak participation of the governments while the beneficiary populations, essential actors of development were not involved. All of these plans have had mixed effects.

DR-Congo is a country of incredible wealth with enormous land, mining, biological, agricultural and hydro-biological potential ( Bolakonga , 2013).

The country's mineral reserves are estimated at US \$ 24 trillion ( Noury , 2010).

The DR-Congo has an area of arable land which is estimated at 80 million hectares. The country's wildlife diversity is such that it is home to 54% of mammals from the African continent. It has a very large agro-ecological diversity allowing it to devote itself to a very wide range of crops. Its meadows can accommodate up to 40 million heads of large cattle because the halieutic potential is estimated at 700,000 tonnes of fish per year. It has a very important hydro-energy potential, that is 100,000 megawatts that can supply more than 500 million people across Africa (World Bank, 2011).

The prospect of agricultural development in DR Congo has never ceased to foster hope for better food self-sufficiency, insisted on by the Congolese population as a whole ( Lebailly , 2010). The many hopes and enthusiasms aroused by these riches, after independence, rather than materializing, have faded over time, driving away the illusion of betterment for this population. The agricultural situation has gradually deteriorated, plunging nearly 75% of the Congolese into food insecurity.

Rural development in DR Congo since independence remains one of its greatest failures. Among the annihilating factors, the destructuring of the communication infrastructures which resulted in the isolation of most of the National Territory is undoubtedly the most important.

Rural areas remain the hardest hit by the phenomenon of poverty. More than 70% of poor Congolese are rural people, dependent on agriculture for food and subsistence ( Bolakonga , 2013).

The Poverty Reduction and Growth Strategy Document (DSCR2), which guides general government policy, has placed agriculture and rural development at the forefront of priorities. The second pillar of DSCR2 (version revised in 2011) concerns the diversification of the economy, the acceleration of growth and the promotion of employment (Ministry of Planning, 2006; 2011). Theoretically, it is about the revival of agriculture and the promotion of food security on the one hand, an agricultural and rural policy note was designed as a reference, orientation and planning framework for the revival and sustainable development of the agricultural and rural sector. Among its major objectives are improving the productivity of the agricultural sector by promoting the use of improved agricultural technologies and inputs; the promotion of decentralized financial systems that adapt to the nature of the activities of the agricultural sector; strengthening the technical and organizational capacities of public and private institutions supporting agricultural production; increasing rural income; and, the diversification of agricultural export sectors.

The observation made in the Territory of Banalia is that the Territory of Banalia is not landlocked, there is a strong traffic in this Territory thanks to the National Road (RN 4). An effort to trade agricultural products is being made in this Territory with the capital of the Province of Tshopo, which is the city of Kisangani. Except, the Territory of Banalia has problems with agricultural services which are in an advanced state of disrepair. But, I ask myself this question, Does the agricultural income received in this Territory contribute to the development of this Territory?

Rural-urban relations and employment are inseparable from the agricultural question and from the relations of the agricultural sector with other economic sectors because agriculture employs a large part of the working population; It contributes to national income and carries foreign exchange ( Disonama , 2013).

Farm households that depend exclusively on agricultural production tend to be the least well off. It would appear that the diversification of economic activities at the household level is a sign of household economic health and security. Today, the rapid increase in population in urban centers determines an increase in food requirements. However, the DR-Congo has recorded in recent years, a decline in its agricultural performance to the point of no longer being able to meet domestic demand and 80% of the population of rural areas live on less than a dollar a day. This makes agriculture considered the cornerstone of economic development, because it has a potential of 80 million arable land (Ministry of Agriculture, Livestock and Fisheries, 2009).

The main cause of chronic food insecurity in DR Congo is the absolute poverty of the population ( Tollens , 2003). Economic information is necessary at several levels to understand the universe in which we operate in order to make decisions in the economic framework (Devaux, 1968).

Encouraging a region to develop is perhaps a matter of creating its complementarities, so that it sees itself as both an administrative and economic unit ( Stighitz , 2002).

We must seek viable economic development, that is, one that allows farmers to produce enough for self-reliance and / or income, and to provide sufficient profit to secure the labor and costs incurred ( Bwama , 2006).

From an economic point of view, we can not speak of development without economic growth because economic development implies growth to which is added the improvement of the distribution of well-being within a country. In this sense, it leads to an improvement in food, health and education services, families with modest incomes, housing, etc. it can be understood through its socio-economic indicators ( Reijntjes et al. 1995).

In DR-Congo and in the Province of Tshopo in general, and particularly in the Territory of Banalia, households live off agriculture, trade, crafts, mining, etc.

Much of the global potential of untapped food production lies in the poor countries where hunger remains endemic and production is struggling to keep population growth (Brown et al, 1978).

In addition, when a large fraction of the working population is unemployed, the remaining small part of the working population which has a job will be obliged to take care of the total population (children and other inactive dependents of the unemployed). This may lead to an increase in poverty, and suddenly, a lower demand for consumer goods will be recorded on the part of the company, with the consequence of reducing income in this sector ( Kitoko , 2014).

The rural space generates economic phenomena and its dominant function is above all that of agricultural production. Particular rural locations are often the basis of various fortunes ( Badouin , 1979).

Thus, according to Theodore Schultz (1979) "For the most part, the inhabitants of the planet are poor, therefore, studying the economics of poverty would give us a lot of information on the economic principles that really matter. The majority of the world's poor derive their income from agriculture; therefore, studying agricultural economics would provide us with a great deal of information on the economics of poverty".

Agriculture is considered to be the primary engine of economic growth in sub-Saharan African countries. It produces most of the foodstuffs consumed; it represents 34% of GDP and 40% of total merchandise exports; it is the main employer of labor (70%) and therefore an essential source of income (Manfred, 1990).

It is also the main source of raw materials for Industry and the main buyer of simple tools and services. For a desirable nutritional balance and the maintenance of good health, food in quantity and quality is recommended ( Bwama , 2006).

The challenges of development in DR Congo are of concern to the government, NGOs, the international community and the population, who live with food insecurity on a daily basis.

In view of this observation, we said to ourselves, the various economic crises going through the R. D - Congo in general as well as the Province of Tshopo in particular do not affect the level of agricultural income of the rural population? In order to know the level of agricultural income of households in the Banalia Territory, it is useful for us to know the different sources of income for the households living in this Territory and to ask ourselves whether this income contributes to the development of this Territory.

Indeed, the diagnosis of the local economy must go beyond the inventory of infrastructure and production figures. It can be established from the analysis of Territorial income (Agricultural Program of the Province Orientale, 2011).

The "income" problem is still a serious problem in the household to this day that economists and government should address and resolve. Because income is one of the major variables which determines consumption if not demand. And as a result, it gives us a more or less real approach to the standard of living of households ( Apaka , 2001).

Ernest Engel, German statistician quoted by Gakuru (2000), says " The poorer a family, the greater the share of its total expenditure that it must use to obtain food ". Any increase in income by this category automatically translates into an increase in consumption. The marginal propensity to consume tends from 0 to 1. This also makes us think of the notion of marginal utility for this category of the population where the needs are unlimited.

In the rural area, farmers find it difficult to save, and even less to invest. They are hardly aware of the possibilities that exist to increase their income. For them, production is immutable data. They are almost insensitive to the market economy and its attractions (Wilde, 1967).

With this in mind, we asked ourselves the following questions :

- What is the share of a household's income from its agricultural activity in the Territory of Banalia ?
- Agricultural activity, although the main activity in the Territory of Banalia, would it play a role as a driving force for the development of this environment?

We will try to answer these questions throughout this article . The main goal pursued in this article is to identify the level of agricultural income of households living in the Territory of Banalia in the face of development.

To achieve this goal, we have adopted the following specific objectives :

- Know the level of agricultural household income generated by agriculture in the territory of Banalia ;
- Identify the role of agriculture as a factor in the development of this environment ;

In view of the questions raised in the issue, we postulate as hypotheses:

- ✓ Given the isolation of our study environment following the dilapidation of agricultural service roads and therefore the inaccessibility of the site for a large number of intermediaries, we can therefore note that the demand is low compared to the supply thus resulting in unremunerative price for farmers.

This is why we mean that the level of agricultural income is low in the area;

- ✓ Based on the observation made above, the low agricultural income and practically subsistence agriculture, agriculture in the Territory of Banalia cannot be considered as a motor sector for the development of this Territory, there is therefore a low contribution from the agriculture for the development of the Territory of Banalia .

## II. Medium, Materials and Method

### A. Description of the study environment

For our investigation, our study environment is the Territory of Banalia which is one of the seven territories that make up the Province of TSHOPO. It was created on March 15, 1935 by ordinance No. 40 / AIMO of the colonial authority.

### B. Materials

To collect the data, we used a number of devices, including : GPS ; s ballpoint pen for writing ; c Ahier field for note taking ; c alculatrice Casio ; 50 m metric r uban to measure the area of the field ; 100 kg scale to weigh the crop and motorbike for our trip.

### C. Method

The method used is the Non- Probabilistic Method with Two- Stage Sampling ;

### D. Conduct of the survey and data analysis

Data collection was carried out in January 2017, on the basis of a questionnaire and participatory observation.

The data collected was verified, entered and processed using SPSS IBM Statistic viewer software . The analysis focused on descriptive statistics instruments (mean, percentage , etc.).

### E. Sampling

In our trajectory, we consulted 120 households because of 40 households per site. The respondents are the heads of households of Poste de Bengamisa (49-64 Km), Yambelo village (76-78 Km) and Bagboa village (110 Km) in the Banalia Territory .

## III. PRESENTATION OF THE RESULTS

### A. Main sources of household income

The only category of households surveyed, 42.5% have agriculture as a source of household income. For 2 category, they have as source of income agriculture-hunting or agriculture-trade ..., 44.2% and for more than 2 category, they have as source of income agriculture-hunting-fishing or agriculture-trade-breeding, 13.3%.

In relation to the decreasing order of importance of these sources of income, agriculture takes first place with 56.67% of the decreasing order of importance of these

Table 1 : Agricultural income by speculation within the households surveyed

	Paddy	Peanut	But	Cassava	Squash	Banana	Vigna	Oil
Households	115	3	28	9	7	1	1	1
Sum	88600	122	4425	6200	187.5	220	65	500
Average	770.43	40.67	158.04	688.89	26.79	220	65	500
Average price per Kg	490	800	100	60	800	170	800	416
Farm income	43414000	97600	442500	372000	150,000	37400	52000	208000
Farm income. way Farm	377,513.04	32,533.33	15803.57	41333.33	21,428.57	37400	52000	208000
income. monthly	31459.4203	2711.1111	1316.9643	3444.4444	1785.7143	3116.6667	4333.3333	17333.3333

sources of income; 26.67% livestock; 5.83% para-agricultural activities and trade; 3.33% crafts and 2% tailoring, radio repair and being a pastor. In relation to agricultural income by speculation within the households surveyed, we will refer to Table 1 above:

It emerges from this table that the agricultural income of paddy for the 115 households practicing this culture amounts to 43,414,000 FC with an average of 377,513.04 FC. The average agricultural income you divide it by 12 months, you have the monthly income of the paddy which is 31 459.4203 FC; so on for other speculations.

The monthly salary of a level D<sub>6</sub> teacher for the year 2016 can be seen in the following table.

Table 2 : Monthly salary of a level D<sub>6</sub> teacher for 2016 in FC

Year	Jan.	Feb.	Tue.	Apr.	May	Jul.	Jul	August	Seven.	Oct.	Nov.	Dec.
2016	103170	103170	103170	103170	103170	103170	103170	103170	103170	103170	103170	103170

Source: SECOPE 2016 payroll listings

It appears from this table that the monthly salary of a teacher at level D<sub>6</sub> was 103 170 FC and this salary was static during the year 2016.

By comparing the monthly income of a D<sub>6</sub> teacher compared to a farmer who produces paddy annually, we will divide the farm income of the paddy in 12 months and we will compare it with the salary of a teacher. of level D<sub>6</sub>.

Table 3 : Comparison of the income of a teacher at level D<sub>6</sub> compared to a farmer who produces paddy in the territory of Banalia in 2016

	Education	Agriculture
Average	103170	31459.4203
Variance	0	652846150
Observations	115	115
Degree of liberty	114	
Statistics t	30.0972441	
P (T <= t) unilateral	0.0000	

Dividing the agricultural income by 12 months, the amount is 31,459.4203 FC, comparing with the monthly salary of a teacher of level D<sub>6</sub> which is 103,170 FC, we noticed that a teacher of level D<sub>6</sub> has a monthly income far greater than the monthly farm income. Because the area cultivated by the households surveyed is small (800m<sup>2</sup>) with low productivity, low production and lack of supervision from NGOs, State (agricultural monitors), Project, Cooperative etc.

#### IV. DISCUSSION OF RESULTS

We were interested in agricultural income in the face of development, case of the Territory of Banalia, DR-Congo. The discussion of this doctoral dissertation is on the main results of this research as *the theme exploited est farm income*; and the fate of hypotheses; afterwards, we will compare our results with those found by other researchers who have worked in the same field as us.

Regarding the specific objectives of this article, they are presented as follows:

- Know the level of agricultural household income generated by agriculture in the territory of Banalia ;

- Identify the role of agriculture as a factor in the development of this environment ;

The main results of this research as the theme exploited est farm income is presented in the following manner:

#### A. Theme 1 Agricultural income

Alluding to the “income formation” plan, the finding is that the only category of households surveyed, 42.5% have agriculture as a source of household income. Two categories have as source of income agriculture-hunting or agriculture-trade ..., 44.2% and for more than two categories, they have as source of income agriculture-hunting-fishing or agriculture-trade-breeding, 13.3%.

In relation to the decreasing order of importance of these sources of income, 56.67% of the respondents have as the decreasing order of importance of these sources of income agriculture; 26.67% livestock; 5.83% para-agricultural activities and trade; 3.33% crafts and 2% tailoring, radio repair and being a pastor;

Compared to the amounts saved in FC, the average amount saved is 54,049.45 FC, the minimum is 500 FC while the maximum is 500,000 FC;

41.76% of heads of household save an amount that varies between 10,000 and 30,000 FC; 23.08% save an amount that varies between 31,000 and 50,000 FC; 12.09% save an amount less than 10,000 FC; 10.99% save an amount that varies between 71,000 and 100,000 FC; 7.69% save an amount greater than 100,000 FC; and 4.40% save an amount that varies between 51,000 and 70,000 FC;

Compared to other forms of savings, more important, another form of savings according to respondents, is livestock with 60.44%; **This confirms our second hypothesis** ;

The agricultural income from paddy for the 115 households practicing this crop amounts to 43,414,000 FC with an average of 377,513.04 FC. The average income you divide it by 12 months, you have the monthly income of the paddy which is 31,459.4203 FC; so on for other speculations;

The monthly salary of a teacher at level D<sub>6</sub> was 103 170 FC and this salary was static during the year 2016;

Comparing the monthly income of a D<sub>6</sub> level teacher versus a farmer who annually produces paddy, we will divide the farm income of the paddy into 12 months and compare it with the salary of a D level teacher ;

Dividing the agricultural income by 12 months, the amount is 31,459.4203 FC, comparing with the monthly salary of a teacher of level D<sub>6</sub> which is 103,170 FC, we noticed that a teacher of level D<sub>6</sub> has a monthly income far greater than the monthly farm income. Because the area cultivated by the households surveyed is small (800m<sup>2</sup>) with low productivity, low production and lack of supervision from NGOs, State (agricultural monitors), Project, Cooperative etc ;

**This confirms our first hypothesis**;

the agricultural income of the Territory of Banalia is low and the agriculture practiced is subsistence due to the dilapidation of the agricultural service roads and the inaccessibility of the site for a large number of intermediaries, the demand is low compared to the resulting supply. of non-remunerative price for the farmers, consequently, agriculture in this Territory cannot be considered as a driving sector of the development of this Territory because there is a weak contribution of this agriculture to the development of this Territory.

## V. CONCLUSION

As we come to the end of this article, we want to summarize by way of conclusion.

A set of questions led this article, among which we quote: What is the share of the income of a household coming from its agricultural activity in the Territory of Banalia? What would be the current technical level of agriculture practiced in this Territory, is it subsistence agriculture or commercial agriculture capable of leading to the constitution of a start-up fund for the development of this environment?

In order to answer these questions, our main aim in this study is to identify the level of agricultural income of households living in the Territory of Banalia in the face of development.

To achieve this goal, we have chosen the following specific objectives:

- Know the level of agricultural household income generated by agriculture in the territory of Banalia;
- Identify the role of agriculture as a factor in the development of this environment.

To better conduct this research, we used the non-probabilistic method with two-stage sampling by means of a questionnaire and an observation.

Data were processed using IBM SPSS Statistics Viewer software.

For the data analysis, we used the percentages, means, minimum and maximum.

After analyzing and processing the data collected, the main results emerging from this study are as follows:

*The agricultural income*, alluding to the income formation plan, the finding is that the only category of households surveyed, 42.5% have agriculture as a source of household income. Two categories have as source of income agriculture-hunting or agriculture-trade ..., 44.2% and for more than two categories, they have as source of income agriculture-hunting-fishing or agriculture-trade-breeding, 13.3%.

In relation to the decreasing order of importance of these sources of income, 56.67% of the respondents have as the decreasing order of importance of these sources of income agriculture; 26.67% livestock; 5.83% para-agricultural activities and trade; 3.33% crafts and 2% tailoring, radio repair and being a pastor;

Based on these results, we find that our two hypotheses are confirmed.

In general, we note that the Territory of Banalia is not developed because, the activities carried out on the ground such as agriculture, crafts, fishing, mining, trade are carried out on a small scale (subsistence agriculture) with a low agricultural income that does not allow this population to support and develop.

Knowing that development is a process that takes time, to achieve it requires good policy by investing in factors of production such as labor, capital, land, technical progress, etc. In view of all these results if - above, we say that agricultural modernization is still not at the rendezvous, why not unthinkable.

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