

ALTERNATIVE RATES APPROACH TO VALUATION OF ECONOMIC CROPS AND TREES IN NIGERIA

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ABSTRACT

Compensation rates applied in Nigeria for compulsory acquisition of economic crops and trees are widely rejected. It has been the norm for OPTS and NTDF rates to be applied. This study practically assesses rates for some economic crops and trees, compared to the currently used rates, the productive life of the crop and trees are not taken into consideration but rather a single compensation payment. Reasonable analysis should reduce the disparity in compensation rates and expected to satisfy stakeholders, thereby reducing conflict and litigation. This student submits that frequent research on rates for all economic crops and trees at intervals not exceeding three to five years should be commissioned by the government and multinationals and the professional body empowered by law should coordinate, develop and approve such rates of compensation.

KEYWORDS: Compensation, Economic Crops and Trees, Productive Life, Rates, Valuer.

INTRODUCTION

Currently in Nigeria, value placed on farmland, crops and economic trees are usually based on predetermined rates. These rates, such as Oil Producers Trade Section (OPTS) rates and those developed by the Directors of Lands at the National Technical Development forum on Land Administration often reflect the general position of the provision of the statutes for compulsory acquisition and for compensation purposes. Various provisions of statutes such as contained in the laws of Nigeria, Cap 4, LFN 2004, Petroleum Act CAPP10 LFN 2004, NNPC ACT CAP 123 LFN 2004, Oil Pipeline Act Cap 07 LFN 2004, the Mineral resources Act, Cap 224, LFN 1990 and the Land Use Act Cap L5 LFN 2004 (LUA) stipulates issues of compensation under compulsory acquisition, loss, damage, injurious affection, disturbance to buildings, crops and economic tree.

Valuation methods for buildings are quite straight forward as the methods can practically and easily be applied by valuers. Economic crops and trees pose problems and causes disputes in several situations due to the use of predetermined rates as prescribed by law in the case of statutory valuations. These rates are usually not a true reflection of the value of the crop or tree and as such leaves the farmer dissatisfied and the acquiring authority with an advantage under the guise of the law. It does not take into cognizance the productivity of the crop or tree or of the farmland, which in practical terms can exist for several years producing annually to the farmers benefit. Most economic crops and trees can have active economic life yielding in excess of 50 years, and some are modeled as accruing income into perpetuity and often stay within family for generations Li, (2016). Such economic crops and trees could be classified as income producing assets, producing annually depending on their nature. Nuhu, (2008) recommends that compensation for economic crops and trees with the capacity of generating annual income should be calculated based on the investment method of valuation which

recognizes and takes into consideration streams of future income flow rather than applying depreciated replacement cost and on the spot value. Therefore, any valuation exercise should take cognizance of the income producing factor for the productive life as compulsory acquisition is a deprivation of not only today's earnings but also streams of future earnings over the productive life.

Value for farmland, crops and economic trees are severally determined for the purpose of compensation for damages, compulsory acquisition, sale or as a going concern (acquisition of an agricultural business). The method of valuation that exists for many of these reasons is not generally acceptable to stakeholders and as such bring about dissatisfaction and disputes, which also causes economic deprivation to rural dwellers and farmers due to the adoption of predetermined rates such as the OPTS rates. Some authors have questioned the legality of the OPTS rates generally adopted in practice in Nigeria, and have argued that the OPTS rates adopted by oil companies which is imposed on valuers is doubtful (Akujuru & Ruddock, 2015; Kakulu, 2008). Clearly, it is important to query the legitimacy of such practice as to who qualified OPTS as the appropriate officer as provided in the Land Use Act (LUA) to have generated rates, which have for several years been adopted as the norm in determining value for compensation by oil companies? The Oil Producers Trade Section (OPTS) is an association of operators in the upstream oil and gas industry in Nigeria, established in 1962 and affiliated to the Lagos State Chamber of Commerce and Industry. There is no structure to show the thoroughness or legality of the development of such rates. It should be viewed as professionally insufficient in determining value for compensation in compliance with the LUA. By provisions of Decree No 24 of 1975, now CAP E13 LFN 2004, Estate Surveyors and Valuers are saddled with the responsibility for valuation standards and practice and not for non-valuation professionals in the oil industry (Otegbulu, 2009). Further, the report of the activities of the National Technical Development Forum (NTDF) on land administration 2006-2008 reveals that, the NTDF conveyed meetings of Directors of Lands in the six geopolitical zones of Nigeria between June, 2007 and July, 2008 to harmonize rates for economic trees and crops. The harmonized rates (referred here as NTDF rates) were adopted by the conference of Directors of land in 2008; again, the adopted NTDF rates do not show a thorough extraction of practice relating to productivity or yield. This indicates a gap in applying the proper process or method in determining rates for economic crops and trees. The role of determining value is clearly that of professional Estate Surveyors and Valuers and not the responsibility of anybody.

The objective of this paper is to improve the existing valuation methodology as applied in Nigeria by bringing in variables such as per square meter productivity of farmlands that will form the basis of determining value of farmlands, economic crops and trees. It is hoped that this is an equitable and more widely acceptable valuation method because adding these variables improves on existing valuation methods and will make them more acceptable to all stakeholders.

METHODS

The study was limited to farming practices in the Niger Delta region of Nigeria, particularly Rivers State, especially as it applies to frequently cultivate crops and trees in the area such as cassava, cocoyam, yam, plantain, banana, maize, oil palm, mango and coconut. A 1x2 meter transect to measure how many crops that could be planted and grown in a healthy manner within a specified area for different crop types was created. Trees were analyzed per stand. Questionnaires pertaining to farming practices, farm yield productivity and farm gate prices were administered in Mogho, Gokona Local Government Area (LGA), Omunwei-Igwuruta Ikwerre LGA, Elele- Alimini Emohua LGA, Ahaoda Ahoada-East LGA on farmers and at the farm gate to determine productivity/yield per square meter and income from sales of farm produce.

The choice of these locations was randomly picked because of their prevalence in farming and across the different geographic spread with active markets due to their accessibility to Port Harcourt city, the capital of Rivers State. The information gathered from these sources were augmented by interfacing with agronomists to establish the right crop population per square meter and productivity of the crops and trees. A total of 6 crops and trees was studied in this work. Selected crops are the most prevalent and readily accessible economic crops and trees in the region under study. The crops and trees studied are Cassava, Yam, Plantain, Banana, Oil Palm, and Coconut. Questionnaire served as the instrument for collecting data from randomly selected farmers and a number of agronomist were the respondents. The inquiry was conducted during the last quarter of 2016.

Table 1: Planting and Harvest Characteristics, Economic Life and Farm Gate Prices of Economic Crops and Trees.

S.No	Economic Crop/Tree	Planting Rate Per Ha.	Planting Rate Per Sqm.	Harvest Per Ha.	Harvest Per Local Measure	Number of Harvest Season/Annum	Economic Life (Year)	Price At Farm Gate - ₦
1	Cassava	10,000	1:1	10 – 15 tons	125/heap, 4 -7 tubers/stand	1	1	2500 – 3000 per heap
2	Yam	10,000	1:1	5 – 10 tons	2-3 tubers per stand	1	1	450 – 600 per tuber
3	Plantain	1667	1:6	15 tons	1 bunch/stand	1	1	1000 – 2000 per bunch
4	Banana	1667	1:6	15 tons	1 bunch/stand	1	1	1500 – 2000 per bunch
5	Oil Palm	124		12 – 15 tons	7-12 bunches/tree	1	50	300 per bunch
6	Coconut	124		8 - 10 tons	4-6 bunches of 14 – 25 coconuts	1	50	1000 – 1500 per bunch

RESULTS

Planting and Harvest Characteristics, Economic Life and Farm Gate Prices of Economic Crops and Trees

Table 1 shows the crops and trees which were studied, indicating their planting rate per sqm, per hectare rate in local measure such as heap, number of harvests per season/per annum, economic life and prices at the farm gate.

Cassava is also known as *Manihot Esculenta* is favorably cultivated in the month of March/April. The farming season spans between 8 – 12 months. Cassava is spaced using a distance of 1meter with a population of 10,000 stands per hectare. Cassava produces approximately 10 -15 tons/ha, depending on the specie. High yielding specie with a distance of 0.6m produces 30 to 40 tons/ha. The approximate number of cassava stands in a 2sqm transect in local farms visited is 6 as seen in picture 1, however, most of the crops were not evenly spaced. The productive life of cassava is usually one year and produces only once in a year. At the local market cassava is sold for ₦2500 - ₦3000 per heap as seen in picture 2. A heap depending on the size is in average of 125 tubers and an average cassava stand produces 4 - 7 tubers.



Figure 1



Figure 2

Yam is usually planted between March to April with a farming season in 8 – 12 months, distance between stands is 1m which depicts a population of 10,000 strands per hectare and yields approximately 5 – 10 tons/ha. It produces once a year with a productive life of one year. In local farms the 25sqm transect can be seen to accommodate 2-3 yam stands (picture 3). At the farm gate most communities sell yam in a heap, bag or by counting with numbers. On average a tuber of yam is sold in region of ₦450 – ₦600 usually a stand of yam produces 2-3 tubers of yam.



Figure 3



Figure 4

Plantain and Banana have similar characteristics, planting season are within March to June with a farming season of between 8 – 12 months, distance to the stands are between 2m to 3m but sometimes in clusters (picture 4). The number of plantain or banana stands in a transect includes both mature and suckers. The population of plantain or banana is approximately 1667 stands/ha. Each stand usually produces a bunch. At farm gate, plantain is sold at ₦1000 - ₦2000 per bunch while Banana is sold at ₦1500 – ₦2000 per bunch. The productive life of both is one year and produces once a year.

Oil Palm (*Elaeis guineensis*) is preferably planted during the rainy season between April to June when the soil contains water for sustaining the young palm. The farming season for oil palm is almost 5 years. Required spacing for oil palm is 9m, with a population of approximately 124 stands/ha. Oil palm yields approximately 12 – 15 tons/ha. An oil palm tree can produce 7 – 12 bunches at a time, maturing at varying times. An average of 3 bunches can be harvested at a time, hence a tree can be harvested 2 – 4 times in one production cycle. At farm gate, a bunch of oil palm is sold at about ₦300. The productive life of oil palm tree is about 50 years.



Figure 5

Coconut is favorably cultivated in the months of April to May with a farming season of above 5 years. It requires a spacing of 9m with a population of 124 stands/ha, coconuts produce approximately 8 -10 tons/ha. The productive life of a coconut tree is about 50 years and produces about 3 – 4 times per annum by 4 – 6 bunches at 14-25 harvest per bunch. A bunch of coconut as is seen in picture 5 is sold about ₦1000- ₦1500, unit price average about ₦30 to ₦70 depending on how dry the coconut oils, with the dry ones sold at higher prices.

Estimate of Productivity of Economic Crops and Trees

Table 2: Estimate of Productivity of Economic Crops, Trees and Recommended Rate

S/No.	Economic crop/tree	Harvest/stand	Harvest/ha	Price/Unit (₦)	Rate/ha (₦)	Rate per stand/tree (₦)	Recommended Rate/ha (₦)	Recommended rate per stand/tree (₦)
1	Cassava	4 -7	50,000	22	1,100,000	110	1,100,000	110
2	Yam	2 – 3	20,000	525	10,500,000	1,050	10,500,000	1,050
3	Plantain	1	1,667	1,500	2,500,000	1,500	2,500,500	1500
4	Banana	1	1,667	1,750	2,917,250	1,750	2,917,250	1750
5	Oil palm	7 – 12	1,116	300	334,800	2,700	4,218,480	34,020
6	Coconut	4-6 bunches of 14 – 25, approx. 100 coconuts	12,400	30	372,000	3000	4,687,200	37,800

Table 2 shows the productivity of economic crops and trees and the recommended rates from this study. As at the period of this study, recommended rate per stand of cassava was ₦110, yam ₦1,050, plantain ₦1500, and banana ₦1750. These rates are similar to the rates per stand in table 2 because the productive life of these crops is one year. For oil palm, mango and coconut the rates per tree are ₦2700, and ₦3000 respectively, while the recommended rates per tree are ₦30,020 and ₦37,800 respectively. The difference between the rates per tree and the recommended rates per tree is as a result of the productive life of the economic trees which are estimated from research to be about 50 years. Therefore, the productivity of the trees is discounted for 50 years at a rate of 7% and considering outgoings at 10%. Similarly, the rates

per hectare for the crops are set considering their productive life of one year, while rates per hectare of the trees takes cognizance their productive years.

DISCUSSIONS

It is important to consider that compulsory acquisition and compensation practices in Nigeria have always referred to rates as set by the appropriate officers, but such rates have never had holistic view that sets the earning potentials of the economic crops and trees. Deprivation of future earnings which the economic trees in this study can guarantee should be assessed and compensated. Compulsory acquisition will not only extinguish today's earnings, but extinguishes future earnings, which the oil palm and coconut trees produces.

It is important that the approach in determining rates is transparent, objective and practical just as this study unveils. Valuation methods need to be objective in relation to determining the value of economic crops and trees. Objectivity implies methods that lead to the same result no matter who applies it (Garia & Grante, 2003). Being objective means reflecting practical situations which should not be manipulated to favor any party and as such show transparency, professionalism and high level of acceptability in determining value of economic crops and trees.

Comparison of OPTS, NTDF and this Study's Rates

Table 3: Comparison of OPTS, NTDF and Study Rates

S/No.	Economic Crop/Tree	OPTS RATES ₦		NTDF RATES ₦		Study Recommended RATES/HA ₦	
		Hectare	Stand	Hectare	Stand	Hectare	Stand
1	Cassava	17,680	20	800,000	200	1,100,000	110
2	Yam	48,000	40	1,100,000	115	10,500,000	1050
3	Plantain		320		1000	2,500,500	1500
4	Banana		320		800	2,917,250	1750
5	Oil palm		1000		600	4,218,480	34,020
6	Coconut		600		225	4,687,200	37,800

Table 3 compares the OPTS rates, NTDF rates and rates derived from this study. The OPTS rates have been applied in compulsory acquisition and compensation in Nigeria and claimants have received compensation with these computations. The table shows wide disparity between the rates and this calls for closer evaluation of the rates adopted for farm lands in Rivers State and Nigeria as a whole.

For cassava, the OPTS rates, NTDF rates and this study rates are per hectare ₦17,680, ₦800,000 and ₦1,100,000 and per stand ₦20, ₦200 and ₦110 respectively. Rates provided for stand for plantain is ₦320 for OPTS, ₦1000 NTDF and ₦1500 from this study. Wider disparity is seen for economic crops with longer productive life which makes it glaring that no rates currently used in Nigeria considers the productive life of the crop or tree. OPTS rates, NTDF rates and rates from this study for oil palm per tree ₦1000, ₦600 and ₦34,020 respectively; mango, while coconut ₦600, ₦225 and ₦37,800 respectively.

The findings of Akujuru and Ruddock (2015) reveal that respondents (government employees) claim that rates were agreed between the Directors of lands and the Minister for Works but denied the legality of this, however the rates were adopted to minimize the acquisition cost to government. This may hint as to why the rates lack universal acceptance. General rating for crops and economic trees should be discouraged and valuation should be based on expected yield of a

crop's productivity over time and not fixed rates (Ogedengbe, 2007). Findings from Ogedengbe (2007) shows that respondents' dissatisfactions are on the premise that rates on which compensation is based are lower than actual market value. It was suggested that reasonable analysis should be applied in determining losses for compensation. The method used in this study shows detailed analysis which are experienced and applied by stakeholders. This study also collaborates the position of Udoekanem's (2013) which reveals wide disparity in compensation determined by the provisions of the Land Use Act and compensation determined by basic valuation methods, hovering at about 84.94%. This means methods currently applied needs to be changed to reduce such disparity and improve acceptability when applying the law. Murray (1969), posits that fair market value is the only way compensation for condemnation can be satisfactory for an owner whose property is extinguished.

Various authors have argued the need for appropriate legislation that would support fair, just and adequate compensation in Nigeria (Akujuru & Ruddock, 2015; Otegbulu, 2009; Kakulu, 2008; Udoekanem, 2013; Ogedengbe, 2007). As much as it is not an easy process to change the provisions of the law like the Land Use Act, which expropriated all lands in Nigeria from the individual and community to the state; it is important that more equitable methods of determining value are developed.

CONCLUSIONS

From table 3, the disparity between the OPTS rates, the NTDF rates and the rates empirically derived from this study are evident. It brings the question, the fairness of the compensation system in Nigeria in times of compulsory acquisition by acquiring authority. It is the submission of this work that the OPTS rates and the NTDF rates have no logical or empirical foundations, and should not be employed in carrying out valuations; since valuation is an art and a science. The science of valuation should not be swept aside or adopted at our convenience, it should be a firm practice which ensures that whatever value is arrived at, through professional valuation procedures, such value can be debated on its merits and practicality anywhere in the world.

This work is by no means conclusive; it simply set out to test the practicality of the rates which have been used for the valuation of economic crops and trees for so long in Nigeria. As can be observed, very few economic crops and trees were studied as a result of the time frame and the ease of collection of data for the studied crops and trees.

This study recommends that, acquiring authorities (especially governments and multinational companies) who are the major users of these valuations should from time to time commission a research to holistically derive practical rates as carried out in this study for all the economic crops and trees which are found in Nigeria, to serve as a template for compulsory acquisition and compensation valuations for a given period not more than 3 – 5 years. Also, the Nigerian Institution of Estate Surveyors and Valuers should move towards scrapping the use of OPTS and NTDF rates, and subsequently, must ensure that all rates to be applied in the valuation of economic crops and trees be approved by the professional body saddled by law (CAP E13 LFN, 2004) with the responsibility of determining value. Further, the use of practical rates will drastically reduce the number of litigations arising from undervaluation of economic crops and trees, and will ensure that land owners and farmers get fair value for their crops and trees as opposed to the exploitation which they are currently being subjected to in the guise of statutory valuations. Finally, compensation should be paid based on productive life of a crop or tree.

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