Research Application Summary

The nature of land resource ownership and perceptions on its management among farming families of South East Nigeria

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Abstract

Land has a cultural value in Nigeria in that its ownership cements the relationship of the owner with the community. But more importantly, land resource is critical to the livelihood of rural farmers because they depend on it for income and food supply. It is therefore important that it is sustainably managed and efficiently used. This study investigated the ownership pattern of land among the farming families in the study area and the attitude towards its management. It adopted the farming and rural systems approach which considers the family-farm-household as a system. A multistage random sampling technique was used to select 120 farming families. A hierarchical clustering process was used to group the sample into the Land Resource Rich (LRR) and Land Resource Poor (LRP). Data collected were further analysed and interpreted in a comparative manner using descriptive statistics and Mann-Whitney-u test. The Likert scale was used to assess their perceptions on land management. The results show that the LRP had an average land area that was one-third of the land-resource rich. The LRR were more active in land market in terms of sales, rent and purchase; but they considered that the land available for agricultural purposes was not enough. The LRP devoted more land to crops and were more dependent on forest products for fuels and herbs. The ownership rights were often without title deed among the LRP which affected their interest in land and soil management techniques. Erosion and soil infertility were major problems identified by both systems as being the major cause of yield reduction in output. But the perception on land resource management was particularly negative among the LRR.

Key words: Farming systems, Land, Land Management, Perceptions

Résumé

La terre a une valeur culturelle au Nigeria en ce que sa propriété cimente la relation du propriétaire avec la communauté. Mais plus important encore, la ressource en terre est critique à la

subsistance des agriculteurs ruraux car ils dépendent d'elle pour leur revenu et l'approvisionnement alimentaire. Il est donc important qu'elle soit gérée de manière durable et utilisée rentablement. Cette étude se propose d'étudier la structure de propriété foncière au sein des familles d'agriculteurs de la zone d'étude et l'attitude à l'égard de sa gestion. Elle adopte l'agriculture et l'approche des systèmes ruraux qui considère la famille-l'exploitation agricole-le ménage comme un système. La technique d'échantillonnage aléatoire à plusieurs niveaux a été utilisée pour sélectionner 120 familles d'agriculteurs. Un processus de classification hiérarchique a été utilisé pour regrouper l'échantillon entre le Riche en Ressources Foncières (LRR) et le Pauvre en Ressources Foncières (LRP). Les données recueillies ont ensuite été analysées et interprétées de manière comparative à l'aide de statistiques descriptives et du test-u de Mann-Whitney. L'échelle de Likert a été utilisée pour évaluer leurs perceptions sur la gestion des terres. Les résultats montrent que les LRP ont une superficie moyenne de terre qui représente le tiers de celle des LRR. Les LRR sont plus actifs sur le marché des terres en termes de ventes, location et achat, mais ils considèrent que la terre disponible à des fins agricoles n'est pas suffisante. Les LRP consacrent plus de terre aux cultures et sont plus dépendants des produits forestiers pour les combustibles et les herbes. Les droits de propriété sont souvent sans titre de propriété au sein des LRP, qui affecte leur intérêt envers les techniques de gestion des terres et des sols. L'érosion et l'infertilité des sols sont des problèmes majeurs identifiés par les deux systèmes comme étant la principale cause de la baisse de rendement de la production. Mais la perception de la gestion des ressources foncières est particulièrement négative au sein des LRR.

Mots clés: Systèmes agraires, terre, aménagement des terres, perceptions

Background

South-east Nigeria lies east of the River Niger and a little south of the River Benue. It is a densely populated area occupying about 8.5% of Nigeria's land area approximately 22% of the nation's total population. The vegetation is mainly rainforest with a fringe of derived savannah in the north and mangrove swamp forest in the south bordering the Atlantic Ocean. An impressive diversity of tropical crops such as plantation crops, legumes, root crops, cereals and vegetables can be supported by the land. But with increasing human population, increased rural-urban migration, a developing real estate market and a more rewarding

non-farm income alternative, farming is being abandoned. Consequently, source of land, the use of land, and its management techniques are changing. This has implications for income generation and household food security in the long run. It is therefore important to examine these changes in order to mitigate the possible negative consequences. The study was done to capture the possible changes and differences between farming systems in the study area.

Literature Summary

According to Doppler (2002), the availability of land is determined by ownership and tenancy systems, administrative and legislative regulations as well as the land market; land availability in turn determines land use. In the area land is mainly acquired by inheritance. These are usually fragmented pieces of land which the owners may not wish to cultivate due to insufficient cash. The source of land determines owners' rights, and this affects land use and management techniques (Akinsanmi, 2005). Also, the continuing degradation of soils threatens the populace with starvation and poverty. This is evidenced by the fact that over the years, contribution of the eastern region to food production in Nigeria has become marginal (Eboh, 2000; Okorie 2002). The decreasing output stem from a number of factors such as traditional farming techniques and low soil fertility, and a high population density relative to the rest of Nigeria among other factors (Akinsanmi, 2005). Related to this is the ownership of the land because it gives an evaluation of the security and stability of the farming system. Individuals would rather use their own land more efficiently compared with rented or borrowed land as well as communal land. To prevent high expenditure on land that is not owned, areas under specific crops are either increased or reduced and in some cases replaced totally as the case may require.

Study Description

The study was carried out in South East Nigeria. Out of this region, Imo State was chosen based on previous studies and knowledge of the prevailing conditions from existing literature. The total area of Imo is 12,689 square kilometers. The major cities are Owerri, Aba, Umuahia and Orlu. Rainfall has a significant impact on agricultural activities in this area. Excess rain in the region leads to high runoff, soil erosion, nutrient losses through leaching and water logging. Too little rainfall limits agricultural activities to 2 or 3 months without supplementary irrigation. In the regions where the rainfall regime is marked by 2 peaks separated by a short August drought, there are two

cropping season. From each local government, autonomous communities were randomly selected; each community consisted of at least 5 villages on the average from which two villages were randomly selected from the two villages, a total of 30 households were chosen. The total sample size was 120 households. The samples were drawn from the list of names. The households were interviewed using a structured questionnaire which covered issues such as land source, land rights, attitude on land management and some socio-economic characteristics. The data collected were coded where necessary and then transferred to MS Excel. Data input errors were checked by the comparison of original data annotations (questionnaires) with control print-outs and graphic displays where relevant. A hierarchical clustering process was used to regroup the data into homogeneous farming systems of the Land Resource Rich (LRR) and the land Resource Poor (LRP). Descriptive (measures of central tendencies) and inferential statistics (Mann-Whitney Test) were carried out using Statistical Package for Social Sciences. The Likert scale had 4 items which were ranked from 5 to 1; the mean score was used to test which items were relevant to their attitude towards proper land used and resource management

Research Application

The results showed that significant differences occurred in the land owned and farmed by the two systems. The LRP in particular made the available land under fallow for less than a year while the LRR could leave theirs for a period of two years on the average.

Land area under mixed crops was not significantly different but the LRR could afford to plant twice in a year. A higher percentage of the LRP inherited land and were more depended on other land resource owners in the community (see Table 1). The LRR perceived that they had no responsibility towards the proper use of communal resources. The LRP indicated that whether the land resource belongs to the community or not was not important in making decisions to use it correctly (See Table 2).

References

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Table 1. Land Source and Farm Size of Farm-Families in South East Nigeria.

Items	Land resource poor (n=57)	Land resource rich (n=51)
Total land owned	0.8531**(±1.71)	2.423**(±6.95)
Farm size	0.56**(±1. 07)	1.36**(±2.39)
Mixed crop surface area	0.54	0.88
Number of cropping	0.63*	1*
Fallow years	0.44**	2.02**
Land source (%)		
Inheritance	54	13
Purchase	7	16
Inherit and purchase	7	31
Rent	14	0
Inherit and rent	7	10
Family	11	0

*Significant at 90% confidence interval; **Significant at both 95% and 90% confidence intervals.
All values in parenthesis are standard deviation. All tests are Mann-Whitney test.

Table 2. Attitude toward resource management.

Item	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Mean
Land resource rich	%	%	%	%	%	
Other people should take care of communal resources	35	14	24	17	10	3.47
L**and resource poor**						
Other people should take care of communal resources	20	10	15	35	20	2.75

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