

**PAYMENT FOR ENVIRONMENTAL SERVICES, RURAL POVERTY  
REDUCTION AND AGRICULTURAL LAND CONSERVATION IN OYO  
STATE FARM SETTLEMENTS, NIGERIA**

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**DOCTOR OF PHILOSOPHY  
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**PAYMENT FOR ENVIRONMENTAL SERVICES, RURAL POVERTY  
REDUCTION AND AGRICULTURAL LAND CONSERVATION IN OYO STATE  
FARM SETTLEMENTS, NIGERIA**

**By**

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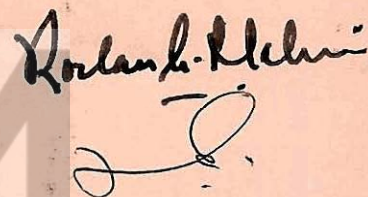
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## ABSTRACT

Despite successive anti-poverty and environmental resources conservation programs by the Nigerian government, the problems of poverty and environmental resources degradation still persist. This study argues that since the two problems are interrelated, the solutions to them must be undertaken simultaneously and in an integrated manner rather than independently of each other. However, one major obstacle to the solution is property rights (i.e. Secured land ownership rights). Past studies argued that without property rights the poor would not be willing to participate in the environmental resources conservation. Besides, studies have indicated that most of the anti-poverty benefits do not reach the target group. Hence, it is inevitably necessary for this study to first of all identify the 'real poor' and the categories of the poor multidimensionally. This was achieved with the aid of Alkire and Foster (2010) and Alkire and Santos (2011) multidimensional poverty assessment methods. The study argues that a credit-based Payment for Environmental Services (PES) has the potential to tackle rural poverty and agricultural land degradation simultaneously, without the poor having absolute ownership rights of the agricultural land. To this end a choice experiment approach was employed to design the multi-attributes of PES. Thus, the perspectives of the poor and their preferences for the options of the PES attributes on rural poverty reduction and agricultural land conservation were identified. Multistage sampling technique was used to choose 317 respondents in Akufo, Ijaye and Ilora farm settlements. The main findings of this study revealed that tenancy security of the land is sufficient to attract the poor to participate in land conservation programs. The study also discovered that PES is a viable mechanism for rural poverty reduction and agricultural land conservation. Thus, there is a need for an institutional arrangement for adequate tenancy security provision as this arrangement will enhance the potentials of PES to mitigate both land degradation and rural poverty concomitantly.

**Keywords:** multidimensional poverty, payment for environmental services, property rights land degradation

## ABSTRAK

Walaupun kerajaan Nigeria telah melaksanakan pelbagai program pembasmian kemiskinan dan pemuliharaan sumber alam sekitar, namun masalah kemiskinan dan kemerosotan sumber alam sekitar masih berterusan. Kajian ini membahaskan bahawa memandangkan kedua-dua masalah tersebut saling berkaitan, penyelesaiannya perlu dilaksanakan secara serentak dan bersepadu bukannya secara berasingan. Walau bagaimanapun, salah satu halangan utama kepada penyelesaiannya adalah hak pemilikan harta (iaitu hak pemilikan tanah bercagar). Kajian lepas membahaskan bahawa tanpa hak pemilikan harta, golongan miskin tidak akan bersedia untuk mengambil bahagian dalam usaha pemuliharaan sumber alam sekitar. Selain itu, kajian telah menunjukkan bahawa sebahagian besar manfaat pembasmian kemiskinan tidak sampai kepada kumpulan sasaran. Oleh itu, adalah perlu untuk terlebih dahulu mengenal pasti maksud 'kemiskinan sebenar' dan kepelbagaian kategori dimensi kemiskinan. Tujuan ini dapat dicapai dengan bantuan kaedah penilaian kemiskinan pelbagai dimensi Alkire dan Foster (2010), dan Alkire dan Santos (2011). Kajian ini menegaskan bahawa Pembayaran Berasaskan Kredit untuk Perkhidmatan Alam Sekitar (PES) mempunyai potensi untuk menangani kemiskinan di luar bandar dan kemusnahan tanah pertanian secara serentak, tanpa golongan miskin mempunyai hak milik mutlak ke atas tanah pertanian tersebut. Untuk tujuan ini satu pendekatan eksperimen pilihan digunakan untuk mereka bentuk pelbagai sifat PES. Oleh itu, keutamaan / perspektif golongan miskin terhadap pilihan ke atas sifat-sifat PES bagi pengurangan kadar kemiskinan luar bandar dan pemuliharaan tanah pertanian telah diperolehi. Teknik persampelan pelbagai tahap digunakan untuk memilih 317 responden di penempatan Akufo, Ijaye dan ladang Ilora. Dapatan utama kajian ini menunjukkan bahawa jaminan keselamatan penyewaan tanah adalah mencukupi untuk menarik golongan miskin mengambil bahagian dalam program-program pemuliharaan tanah. Kajian ini juga mendapati bahawa PES merupakan satu mekanisme yang berdaya maju untuk mengurangkan kemiskinan luar bandar dan pemuliharaan tanah pertanian. Oleh itu, keperluan untuk mengatur sebuah institusi bagi memenuhi peruntukan keselamatan penyewaan akan meningkatkan potensi PES untuk mengurangkan kadar kemusnahan tanah dan pengurangan kemiskinan di luar bandar secara seiring.

**Kata kunci:** kemiskinan multidimensi, bayaran untuk perkhidmatan alam sekitar, hak milik, kemusnahan tanah

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## LIST OF ABBREVIATIONS

|          |  |
|----------|--|
| ACGS     | Agricultural Credit Guarantee Scheme               |
| ADP      | Agriculture Development programme                  |
| AES      | Agricultural Environmental Services                |
| AF       | Alkire and Foster                                  |
| BL       | Back to Land                                       |
| BLRW     | Better Life for Rural Women                        |
| CBN      | Central Bank of Nigeria                            |
| CE       | Choice Experiment                                  |
| CI       | Confidence Interval                                |
| CIA      | Central Intelligence Agency                        |
| CONSPOV  | Consumption Poverty                                |
| CSPI     | Correlation Sensitive Poverty Index                |
| CV       | Contingent valuation                               |
| DFFRI    | Directorate of Food, Road and Rural Infrastructure |
| EA       | Enumerated Area                                    |
| EDUC.POV | Educational Poverty                                |
| ES       | Environmental Service                              |
| FCPE     | Free and Compulsory Primary Education              |
| FEAP     | Family Economic Advancement Programs               |
| FGT      | Foster–Greer–Thorbecke indices                     |
| FREQ.    | Frequency  |
| FSP      | Family Support Programs                            |
| FSP      | Family Support Programme                           |



|         |  |
|---------|--|
| GDP     | Gross Domestic Product                                   |
| GRP     | Green Revolution Programme                               |
| HDI     | Human Development Index                                  |
| HSG/LSD | Housing Standard/Living Standard                         |
| IFAD    | International Fund for Agricultural Development          |
| ISP     | Input Subsidy as a reason for your Participation         |
| LIVGSTD | Living Standard  |
| LOR     | Land Ownership Rights                                    |
| M       | Mean   |
| MDGs    | Millennium Development Goals                             |
| MOC     | Member of an Organization                                |
| MPI     | Multidimensional Poverty Index                           |
| MPOV    | Multidimensional Poverty                                 |
| NAFP    | National Accelerated Food Production Program             |
| NALDP   | National Agricultural Land Development Programme         |
| NAPEP   | National Poverty Eradication Programme                   |
| NARDCB  | Nigerian Agricultural Rural Development Cooperative Bank |
| NBS     | Nigerian Bureau of Statistics                            |
| NDDC    | Niger-Delta Development Commission                       |
| NDE     | National Directorate of Employment                       |
| NEST    | Nigerian Environmental Study/Action Team                 |
| NGO     | Non-Governmental Organization                            |
| NICIS   | Non-Increasing Correlation Increasing Switch             |

|        |  |
|--------|--|
| NPC    | National Population Commission   |
| NRIDCS | Natural Resources Development and Conservation Scheme                                    |
| OFN    | Operation Feed the Nation  |
| OPHI   | Oxford Poverty and Human Development Initiative  |
| OYSG   | Oyo State Government   |
| PAP    | Poverty Alleviation Programs   |
| PBN    | Peoples' Bank of Nigeria   |
| PES    | Payment for Environmental Services   |
| POC    | Provision of Credit  |
| PPP    | Purchasing Power Parity  |
| PRC    | Poverty Reduction and Conservation of Environment  |
| PRU    | Participation in Conservation of land through PES<br>mechanism could Reduce Unemployment |
| PTC    | PES Transaction Costs  |
| RBDA   | River Basin Development Authorities  |
| RBP    | Rural Banking Programs   |
| RES    | Rural Electrification Scheme   |
| RIDS   | Rural Infrastructural Development Scheme   |
| RUPES  | Rewarding the Upland Poor for Ecosystem Services   |
| SAP    | Structural Adjustment Programme  |
| SD     | Standard Error   |
| SGPA   | Strategic Grains Reserves Program  |
| SOWESS | Social Welfare Scheme  |
| T      | T-Value  |

|      |                                     |
|------|-------------------------------------|
| TBP  | Trust Between the Parties           |
| UBN  | Unsatisfied Basic Needs Method      |
| UN   | United Nation                       |
| UNDP | United Nation Development Programme |
| USD  | United State Dollar                 |
| WTA  | Willingness To Accept               |
| YES  | Youth Empowerment Scheme            |



**UUM**  
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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background and Motivation of the Study

Previous governments in Nigeria have recognized the necessity to tame poverty as it impedes socioeconomic growth and development of her populace. Evidences abound from the previous studies that poverty has reached an endemic level in Nigeria (Abiola & Olaopa, 2008; Adepoju & Yusuf, 2012; IFAD, 2011; World Bank, 2011) in spite of various programs aimed to tackle poverty. From the released statistics by the National Bureau of Statistics (NBS), the former governor of the Central Bank of Nigeria (CBN): Charles Soludo has this to say about the state of poverty in Nigeria.

*I have decomposed the relative contributions of each state and geopolitical zone to the worsening poverty, using the NBS figures, and the results for the zones are: North central (4.7%); Northeast (10.2%); Northwest (15.6%); Southeast (37%); South south (14.3%); and Southwest (18%). In total, the 19 Northern states contributed about 30%, while the 17 states in the Southern states contributed 70% of the deterioration in the national poverty index. At the state level, the five states with the worst deterioration (in percentages of deterioration compared to 2004) are: Anambra (238%); Bayelsa (189%); Abia (185%); Oyo (152%); and Enugu (132%).*

*The states with the most improvement in reducing poverty (percentages of improvement) are: Niger (32%), Kogi and Jigawa (17%); Kwara (13%), Kebbi (10%), and Lagos (7%). The full results show that compared to 2004, poverty worsened dramatically in all Southern states except Lagos in 2010, whereas in the North, it worsened in 11 out of the 19 states. A very interesting symmetry is the fact that, except for Adamawa and Zamfara States, every state where poverty declined in the 2004 survey, it increased in 2010 and vice versa. Can this be true or a typo? The statistics are quite intriguing if the figures are correct, they raise a very important issue pertaining to the size of government spending and poverty. Interestingly, some of the states that spent the most money also had very high deterioration in poverty between 2004 and 2010. Ogun (117%), Edo (119%), Imo (109%), Rivers (101%) and Akwa Ibom (80%)” (This day live, November 26, 2012. Pp.1).*

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