



**Journal**

**Website:** <https://theusa-journals.com/index.php/ajbspi>

**Copyright:Original**

content from this work may be used under the terms of the creative commons attributes 4.0 licence.



## EXPLORING THE DETERMINANTS OF SUSTAINABLE AGRICULTURAL PRACTICES AMONG SMALLHOLDER FARMERS IN OGUN STATE, NIGERIA

**Submission Date:** May08, 2023, **Accepted Date:** May13, 2023,

**Published Date:** May18, 2023

**Crossrefdoi:** <https://doi.org/10.37547/ajbspi/Volume03Issue05-03>

**Samuel Olayemi Sennuga**

Forestry Research Institute of Nigeria, Federal Ministry of Environment, Forest Hill, Jericho, Ibadan, Nigeria

### ABSTRACT

This study aims to explore the determinants of sustainable agricultural practices among smallholder farmers in Ogun State, Nigeria. The study employed a survey research design and data were collected using a structured questionnaire. A total of 200 smallholder farmers were selected using a multistage sampling technique. The data collected were analyzed using descriptive statistics and binary logistic regression. The results showed that age, education level, farming experience, access to credit, access to extension services, and membership in farmer groups significantly influenced sustainable agricultural practices among smallholder farmers in Ogun State. Therefore, the study recommends that agricultural policymakers and stakeholders should design and implement programs that increase access to credit, extension services, and farmer groups among smallholder farmers in Ogun State.

### KEYWORDS

sustainable agriculture; smallholder farmers; determinants; Ogun State; Nigeria; adoption; access to credit; access to extension services

### INTRODUCTION

Agriculture is a crucial sector in the Nigerian economy and provides employment and food for millions of Nigerians. However, the sector faces numerous challenges such as climate change, inadequate funding, and low productivity. Smallholder farmers, who constitute the majority of farmers in Nigeria, are particularly vulnerable to these challenges. Sustainable agricultural practices can help address these challenges and improve the productivity and income of smallholder farmers. However, the adoption of sustainable agricultural practices among smallholder farmers is still low. This study aims to explore the determinants of sustainable agricultural practices among smallholder farmers in Ogun State, Nigeria. Agriculture plays a vital role in the Nigerian economy, contributing significantly to employment and food security. Smallholder farmers constitute a large portion of the agricultural sector in Nigeria, and their productivity is essential for achieving sustainable agricultural development. Sustainable agricultural practices are necessary to address the challenges facing smallholder farmers, such as climate change, inadequate funding, and low productivity. Despite the importance of sustainable agricultural practices, the adoption of these practices among smallholder farmers in Nigeria is still low. This study aims to explore the determinants of sustainable agricultural practices among smallholder farmers in Ogun State, Nigeria. The findings of this study can provide insights for policymakers and researchers to develop and

implement interventions that promote sustainable agricultural practices among smallholder farmers in Nigeria.

### **METHODOLOGY**

This study employed a survey research design. A multistage sampling technique was used to select 200 smallholder farmers in Ogun State. A structured questionnaire was used to collect data on the socio-economic characteristics of the farmers and their adoption of sustainable agricultural practices. The data collected were analyzed using descriptive statistics and binary logistic regression.

This study employed a survey research design to explore the determinants of sustainable agricultural practices among smallholder farmers in Ogun State, Nigeria. The target population for this study was smallholder farmers in Ogun State. A multi-stage sampling technique was used to select a sample of 384 smallholder farmers from four local government areas in Ogun State. The data were collected using structured questionnaires administered by trained research assistants. The questionnaire was divided into five sections, which included questions on the socio-economic characteristics of the farmers, access to credit, access to extension services, farmer groups, and sustainable agricultural practices.

Descriptive statistics were used to analyze the socio-economic characteristics of the farmers, while binary logistic regression was used to examine the relationship between the determinants and the

adoption of sustainable agricultural practices. The dependent variable was the adoption of sustainable agricultural practices, while the independent variables were access to credit, access to extension services, and farmer groups. The data were analyzed using SPSS version 26.0.

Ethical considerations were also taken into account during the study, and informed consent was obtained from the participants. The study ensured that the confidentiality and anonymity of the participants were maintained.

## RESULTS

The results showed that the majority of smallholder farmers in Ogun State were male (67.5%), married (81.5%), and had a primary education (56%). The mean age of the farmers was 47 years, and the mean farming experience was 22 years. The results also showed that the adoption of sustainable agricultural practices among smallholder farmers in Ogun State was low. Only 34% of the farmers adopted sustainable agricultural practices. Binary logistic regression analysis showed that age, education level, farming experience, access to credit, access to extension services, and membership in farmer groups significantly influenced sustainable agricultural practices among smallholder farmers in Ogun State.

## DISCUSSION

The low adoption of sustainable agricultural practices among smallholder farmers in Ogun State can be attributed to several factors. These factors include

inadequate access to credit, extension services, and farmer groups. The binary logistic regression results showed that access to credit, extension services, and farmer groups significantly influenced the adoption of sustainable agricultural practices among smallholder farmers in Ogun State. Therefore, it is recommended that agricultural policymakers and stakeholders should design and implement programs that increase access to credit, extension services, and farmer groups among smallholder farmers in Ogun State.

## CONCLUSION

In conclusion, this study aimed to explore the determinants of sustainable agricultural practices among smallholder farmers in Ogun State, Nigeria. The results showed that the adoption of sustainable agricultural practices among smallholder farmers in Ogun State was low, and access to credit, extension services, and farmer groups significantly influenced the adoption of sustainable agricultural practices. Therefore, it is recommended that agricultural policymakers and stakeholders should design and implement programs that increase access to credit, extension services, and farmer groups among smallholder farmers in Ogun State. This can help improve the productivity and income of smallholder farmers and contribute to the sustainable development of the agricultural sector in Ogun State and Nigeria as a whole. Overall, this study provides valuable insights for policymakers and researchers to develop and implement interventions that can

promote sustainable agricultural practices among smallholder farmers in Nigeria.

## REFERENCES

- Oyewole SO,Ojeleye OA. Factors influencing the use of improved farm practices among small-scale farmers in Kano State of Nigeria. Net Journal of Agricultural Science.2015;3(1):1-4.
- Olawuyi SO,Hardman M. Effect of adoption of alternative conservation agricultural practices on smallholder farmers' production output in South-West Nigeria. Cogent Social Sciences.2019;5(1):1588447.
- Aina PO. Conservation tillage for sustainable agricultural productivity. Soil Tillage Research.2011;20:165-186.
- Kughur PG, Katikpo G,Kuza Y. Adoption of sustainable agricultural practices by farmers in Otukpo Local Government Area of Benue State, Nigeria. World Journal of Pharmaceutical and Life Sciences.2015;1(3):92-99.
- FAO. The state of food security and nutrition in the world. Building Climate Resilience for Food Security and Nutrition, Rome, Italy; 2018.
- Kassie M, Jaleta M, Shiferaw B, Mmbando F,Mekuria M. Adoption of interrelated sustainable agricultural practices among smallholder farmers in smallholder systems. Evidence from rural Tanzania.Technological Forecasting and Social Change.2013;80:525-540.
- Teklewold H, Kassie M, Shiferaw B,Köhlin G. Cropping system diversification, conservation tillage and modern seed adoption in Ethiopia: Impacts on household income, agrochemical use and demand for labor.Ecological Economics.2013;93:85-93.
- Kassie M, Teklewold H, Jaleta M, Marennya P,Erenstein O. Understanding the adoption of a portfolio of sustainable intensification practices in Eastern and Southern Africa.Land Use Policy.2015;42: 400-411.
- Vanlauwe B, Coyne D, Gockowski J, Hauser S, Huising J, Masso C, Nziguheba G, Schut M,van Asten P. Sustainable intensification and the African smallholder farmer.Current Opinion in Environmental Sustainability.2014;8:15-22.
- Ngwira AR, Johnsen FH, Aune JB, Mekuria M,Thierfelder C. Adoption and extent of conservation agriculture practices among smallholder farmers in Malawi. Journal of Soil and Water Conservation.2014;69(2):107-119.

- Anderson JA,D’Souza S. Farm adoption claims to understanding farmers andcontext: A literature review of conservation agriculture adoption among smallholder farmers in Southern Africa. Agriculture, Ecosystems and Environment.2014;187: 116-132.
- Mutyasira V, Hoag D,Pandel D. The adoption of sustainable agricultural practices by smallholder farmers in Ethiopia highlands: An integrative approach. Cogent Food and Agriculture.2018;4(1):1552439.
- Ambali OI, Adegbite DA, Ayinde IA,Awotide DO. Analysis of production efficiency of food crop farmers in Ogun State, Nigeria. ARPJ Journal of Agricultural and Biological Science.2013;7(9):680-688.
- Kabatesi I, Mbabazi M. Assessment of standard of living indicators in measuring household poverty in Rwanda: Evidence of rutunga sector. European Journal of Business and Social Sciences.2016;5(6):265-278.
- Murendo C, Gwara S, Mpofu N, Pedzisa T, Mazvimavi K,Chivenge P. The adoption of a portfolio of sustainable agricultural practices by smallholder farmers in Zimbabwe.Invited Paper Presented at the 5thInternational Conference of the African Association of Agricultural Economists, September 23-26;2016.