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Determinants of Farmers Use of Sustainable Conservation Practices in Osun State, Nigeria

LUQMAN ABIODUN AKINBILE, STELLA O. ODEBODE

University of Ibadan, Department of Agricultural Extension and Rural Development, Nigeria

Abstract

Sustainability which involves the ability to use a resource in ways that ensure little or no damage to guarantee continuous use was the focus of the study. Participatory tools i.e. focus group discussion was employed using farmers to take inventory of the soil conservation practices they consider to be sustainable. Fifteen practices were validated. The practices are: slash and manual removal of biomass, zero tillage, minimum tillage, use of organic manure with inorganic fertilizer, multiple cropping, crop rotation, construction of ridges and heaps, planting nitrogen fixing legumes, use of strip cropping, planting cover crops, planting multipurpose trees, use of vetiver grass, mixed farming, fallow cropping and use of mulches

The study identified the determinants of farmers' use of the practices in the study area. Data were gathered from 112 respondents sampled through systematic technique from five (5) communities.

Results of the study show that the farmers are aware of most of the practices, while the soil conservation practices they often make use of are multiple cropping, use of cover crops, crop rotation and the use of fallow system. They also plant multipurpose tree species for erosion control and use organic manure with inorganic fertilizer at varying degrees to enhance productivity and ensure sustainability.

Correlation tests show that farm size, income, labour use, other income generation activities and level of awareness had significant relationship with respondents' use of the sustainable soil conservation practices.

Multiple regression analysis shows that factors that determine farmers' use of those soil conservation practices are level of awareness, farm size, income, labour use and other income generation activities. The factors determine 72% of the variation in respondents' use of the conservation practices. Sustainability therefore demands that the farmers should be assisted with respect to those factors.

Keywords: Conservation, determinants, farmers, soil, sustainability