Tropentag, October 6-8, 2009, Hamburg

"Biophysical and Socio-economic Frame Conditions
for the Sustainable Management
of Natural Resources"

Social and Economic Implications of Land Use Change on Agricultural Production and Food Security among Smallholder Farm Families in Nigeria

Igbekele Ajibefun

Federal University of Technology, Department of Agricultural Economics and Extension, Nigeria

Abstract

Land is the base on which production and all other human activities take place. The landscape functions are strongly connected with the type and intensity of land use, as a result of complex network of economic, social, biotic and abiotic interactions. Land use is being shaped under the influence of two broad sets of forces – human needs and environmental features and processes. These forces, which are driven by social, economic, climatic and ecological factors, interact and constantly change the features and characteristics of land. Changes in the use of land are dynamic, as they occur at various spatial levels and within various time periods. Human-induced disturbance has been described as one of the major causes of land use change. Socio-economic forces that determine the mode of development in many countries play an important role in the process of land use change. Integrated modelling, involving socio-bio-economic economic models to study land use change in an integrated manner is a practical way to achieve the objective of sustainable and sound land use practice and management. With this modelling framework, it is possible to minimise conflicts so as to make the most efficient trade-off and to link socio-economic development with sustainable land use. The integrated land use modelling approach is crucial to arriving at sound land use planning and management practices, given that both biophysical and socio-economic factors are the major driving forces for land use change. Also, increasing resource scarcity in the developing country such as Nigeria increases the urgency to understand the social and economic implications of land use change on food security and environmental sustainability. This paper builds on the concept of integrated regional land use analysis to provide a framework for integrating social, economic and biophysical factors in the modelling of land use change. In addition, the paper identifies food security and environmental management challenges arising from land use change particularly in a developing country like Nigeria.

Keywords: Agricultural production, food security, land use change

Contact Address: Igbekele Ajibefun, Federal University of Technology, Department of Agricultural Economics and Extension, Ilesha Road, 340001 Akure, Nigeria, e-mail: iajibefun@yahoo.com