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“Utilisation of diversity in land use systems:
Sustainable and organic approaches to meet human needs”

Assessment of Past and Present Soil Conservation Initiatives in Nigeria, West Africa

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Abstract

Non-adapted land use practices as well as the lack of inputs inevitably lead to soil degradation that has already become the most critical environmental problem in sub-Saharan Africa. Consequences are reduced soil quality and productivity resulting in declining crop yields and lower income of the rural population. There is an urgent need to develop effective soil resource managements that reverse the degradation trend in order to sustain soil productivity and enhance food security. Research on soil erosion and conservation has already been done for many years in different parts of West Africa including Nigeria. But in view of increasing soil degradation, there is a need to review existing soil conservation practices and come up with comprehensive soil conservation strategies for the West African savannah. Earlier initiatives have resulted in a range of on-farm and off-farm technologies. However, no information is available on their efficiency, their adoption and perception by farmers as well as on their costs and benefits.

This assessment study started in 2006 to identify current initiatives and their effectiveness including sociological, technological, and economical aspects. An extensive literature review was conducted including scientific (universities, ministries, non governmental organisations) and digital resources to get information about past and present research and performance of soil conservation in Nigeria. Furthermore, pilot villages where different types of conservation technologies were/are installed in the field were visited and interviews with stakeholders and farmers were made in order to study the adoption of conservation technologies (adoption barriers, adaptation to the initiatives, and perceptions of impact). Based on the results, the most promising soil conservation technologies for the savannah are identified contributing to an enhanced soil resources management in Nigeria.

Keywords: Adoption, assessment, Nigeria, soil conservation, sub-saharan Africa