Measuring Sustainability of Agricultural Systems at the Farm Level

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OVERVIEW

This chapter bases sustainability evaluation on the multifaceted FESLM (Framework for the Evaluation of Sustainable Land Management) developed by FAO and IBSRAM (Smyth et al., 1993). The work reported evaluates sustainability at the on-farm level. It proposes a preliminary list of field indicators, provides examples from actual measurement and outlines a method to visually, and quantitatively represent results for easy analysis and comparison.

An agricultural system is said to be sustainable at the farm level if it satisfies the farm manager’s needs (over time) while conserving the natural resource. Resource conservation is handled separately from farmer satisfaction. Farmer’s satisfaction includes issues such as productivity, profitability, stability, and social acceptability.