

Abstract

This paper uses non-parametric approach to measure technical innovation and productivity growth at the smallholder farm-level in dry-land sub-Saharan Africa during the initial years of the structural adjustment programmes for agriculture. Data from Kenya for two production years, 1991/2 and 1995/6 are used to construct a Malmquist productivity index. The results show that the rise in input prices led to reduced use of modern inputs, so that efficiency increased at 12% per year. However, lower use of modern varieties and less fertiliser also gave technological regression at 2.5% per annum, so that the overall outcome was productivity growth of 3% per annum. However, productivity improvement cannot be sustainable without technological progress.