

**Linking Land Quality, Agricultural Productivity, and Food Security.** By Keith Wiebe, Resource Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 823.

## Abstract

Land quality and land degradation affect agricultural productivity, but quantifying these relationships has been difficult. Data are limited, and impacts are sensitive to the choices that farmers make. Summarizing new research by economists, soil scientists, and geographers, this report explores the extent to which land quality and land degradation affect agricultural productivity, how farmers' responses to land degradation are influenced by economic, environmental, and institutional factors, and whether land degradation poses a threat to productivity growth and food security. Results suggest that land degradation does not threaten food security at the global scale, but does pose problems in areas where soils are fragile, property rights are insecure, and farmers have limited access to information and markets.

Keywords: Land quality, land degradation, soil erosion, agricultural productivity, food security.

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### Cover photos:

Women building contour terraces, Peru: FAO photo, I. Valdez.

Family returning home with rice harvest, Cambodia: FAO photo, G. Bizzarri.

Children being weighed and measured, Burkina Faso: FAO photo, R. Faidutti.

Background photo of terraces and buffer strips, Iowa: courtesy of USDA NRCS.

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