

**TITLE:** Population redistribution, environmental degradation and landuse patterns: a district level study of linkages in arid and semiarid zones of India.

**AUTHOR:** Gulati SC; Chopra K

**SOURCE:** DEMOGRAPHY INDIA. 1994 Jan-Dec;23(1-2):1-14.

**ABSTRACT:** This study examines the nature and strength of links between population growth and migration, changing land use patterns, and environmental degradation during the 1980s in 89 districts in arid and semiarid zones of central and western India. Rural out-migration, environmental degradation, and land use patterns are treated as four endogenous variables. Demographic and development predictors are treated as 11 exogenous variables. It is hypothesized that population growth results in pressure on the land and water in rural areas, that degradation leads to out-migration, that changes in land tenure and common property rights can limit or encourage out-migration, that out-migration is a result of employment opportunities in urban industrial areas, and that out-migration impacts on urban environments. It is posited that environmental degradation results from intensification of agriculture and lack of land preservation or overgrazing. Land is overexploited by rural people's survival needs and by commercial demand. The analysis includes four structural models explaining the relationships between environmental degradation, property rights, and population movements. The analysis relies on three-stage ordinary least squares techniques. Findings indicate that degradation and depletion of common property resources increase the rate of rural outmigration. Districts with similar levels of out-migration, changes in forest cover, and larger areas with common property rights had lower environmental degradation. Districts with lower nonagricultural development had more changes in privately owned cropland; higher nonagricultural development was related to fewer changes in private land. Loss of common land was related to growth of net sown areas. Districts with lower productivity had greater improvements in common land areas. All agricultural variables impacted on environmental conditions, cropland areas, and common land areas in the expected ways.

**YEAR:** 1994