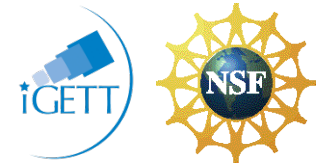


# Examining Land Use Change in Phoenix, Arizona



**Topic:** Land use change in an urban environment

**Problem Statement:** South Phoenix has experienced rapid urbanization in a short period of time. How can remote sensing and GIS help planners analyze this changing land use?

**Level:** Beginner

**Software:** ArcGIS 9.3, ENVI 4.5, Internet for Landsat Data

**Description:** People alter the land to fit their needs, whether it be for agriculture, housing, roads, parks, or urban centers. Changing land use can be observed on site from year to year, but this perspective only gives a limited view. For a larger view, planners can use satellite technology to monitor a region over time and accurately document land use change .

Phoenix is located in Maricopa County in south-central Arizona. Over the past two decades, the county and the city have experienced tremendous population growth, resulting in significant changes in land use. This is especially true in South Phoenix, originally a rural agricultural community within the city limits. Students will use remote sensing and GIS to analyze urbanization in South Phoenix between 1990 and 2005 and produce a map that documents the land use changes.

**Key words:** Land use, image processing, GIS integration

South Phoenix in 1990



South Phoenix in 2005

