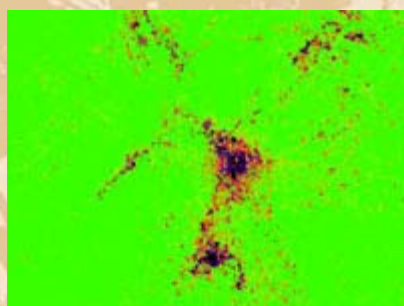


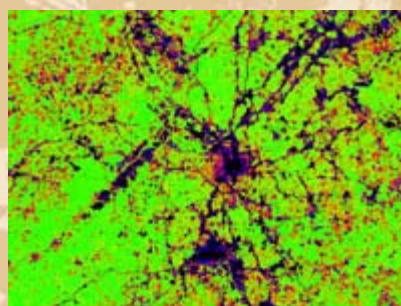


Atlanta

Atlanta has undergone tremendous growth in the past twenty years. As the city has developed, vegetation and tree cover in the urban area has declined by about 65 percent, according to a new study by **American Forests**. About one-third of that loss has taken place since 1986, and tree cover is expected to decline another 5 percent by the year 2000 unless action is taken to reverse the trend.



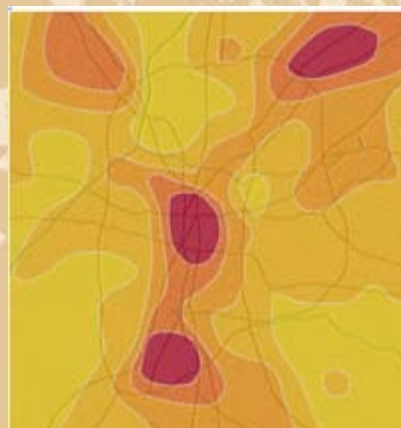
1972



1993

These Landsat photos show the decline in vegetation and tree cover (shown in green) as built-up urban areas (shown in black) grow. Red and yellow areas are a mixture of the two. Downtown Atlanta is in the center of each photo, and Hartsfield International Airport is at bottom center.

One of the effects of this deforestation trend is an increase in temperature, called the urban heat island effect. As green spaces are replaced with buildings, parking lots and roadways, the shading and evaporative cooling benefits of trees are lost, and the urban temperature rises compared to the surrounding countryside.



1972

1993

The growing urban heat island corresponds to the changing land cover. The hottest areas (9-12 degrees F above base temperature) appear in red and expand from downtown Atlanta (center of image), Gwinnett County (upper right) and Hartsfield International Airport (bottom center).

According to the study, the heat island effect has increased energy use in buildings in downtown Atlanta by 4%. Lawrence Berkeley Laboratories in California estimates that about 12% of Atlanta's air quality problem is the result of heat.

However, Atlanta's existing urban forest provides several benefits. Trees in Atlanta currently save homeowners between \$9 and \$61 in summer cooling bills, depending on how well trees are strategically sited around a home. Within the city limits alone, trees reduce energy usage by \$4.6 million due to shading of homes. Atlanta's urban forest also stores 475,000 tons of carbon.