

Generating Data to Understand a Global Phenomenon

New Jersey has long struggled with creating a balance between new development to house a growing population and environmental quality. Negative impacts of urban growth in New Jersey and other similarly congested areas around the globe include loss of fertile agricultural lands, loss of wetlands, loss and fragmentation of wildlife habitat, increases in impervious surfaces with subsequent impacts on water quality, and loss of aesthetic quality to the landscape.

The Grant F. Walton Center for Remote Sensing & Spatial Analysis (CRSSA) is generating data that can help to address these negative impacts of land use change and intensification. Researchers are using satellite remote sensing and geographic information systems (GIS) to map the land surface in the state and region. The maps, backed up with field studies, are used to provide better insight into the causes and consequences of land use and land cover change over time. Computer simulation models are employed to project what types of land use change might occur in the future. CRSSA works with on-the-ground partners to assess how geospatial information on landscape change can best be applied to natural resource management and land use planning decisions.

The New Jersey Land Cover Change time series data set is the most widely used of CRSSA's data sets. This time series, which documents land use change from 1972 to the present, has made a profound impact on how New Jerseyans view their state and the relative balance between urban development and open space. Regular updates to this data set will enable the center to continue to assess the efficacy of New Jersey's land use planning policies and provide timely feedback to government and non-government decision makers.

CRSSA has played a leading role in developing novel land use and land cover GIS data sets that can be applied to New Jersey, the region, and environmental systems around the globe. To support their research, please contact The Office of Development at 732-932-9000, ext. 576 or development@sebs.rutgers.edu.

For more information, visit us at www.sebs.rutgers.edu.

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