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Integrating Remote Sensing and GIS in Rural Environments.

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The Laboratory for Applications of Remote Sensing (LARS) at Purdue University, is developing a geographic information system (GIS) for land use/land cover inventories, land appraisal for tax assessment, soil erosion, and soil management studies to be used in rural environments. SPOT satellites over Miami County, Indiana, were geometrically corrected satellites, registered to a base map, and classified for land use/land cover. Results were incorporated into the GIS. Other layers of information of this GIS are soils, land ownership, roads, surface hydrology, and contour lines. A model for land appraisal was implemented using the GIS and compared with a traditional, manual overlay procedure. The evaluation of this automated approach was based on accuracy of results and flexibility of the system.