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This study integrated bio-physical and socioeconomic information, land use patterns, and institutional data with remote sensing to examine forest change in Western Honduras. The study was focused in the area of La Campa. Satellite imagery from a 1996 Thematic Mapper (TM) was ground-truthed in 1997 and 1998 and vegetation was separated into various land cover classes. These land cover classes were determined from the collection of 131 training samples collected on the ground by researchers. Another Landsat image was obtained from 1987. These images were calibrated, and changes in the level of forest cover on the landscape were determined using Arc/Info. In an effort to simplify the data, only two cover classes were used: forested and deforested.

A second analysis incorporated distance, slope and elevation data to assess the importance of topography. This information was then combined with socioeconomic and interview data to try to determine patterns and explanations for land use. An overall increase in forest cover over the time period examined was attributed primarily to land tenure and accessibility. Private land was overall more forested and represented areas of greater tree diversity. Forested areas overall remained in the most inaccessible areas, primarily due to slope.

GIS played a large role in this study, and allowed the examination of data that would have otherwise been very difficult to correlate. The spatial representation of forested areas, agricultural areas, and populations was invaluable to the study and allowed many interesting conclusions to be drawn.