Predicting Land-Cover Changes with Gray Systems Theory and Multitemporal Aerial Photographs

Ruiliang Pu and Peng Gong

Center for Assessment and Monitoring of Forest and Environmental Resources (CAMFER)
Department of Environmental Science, Policy, and Management
151 Hilgard Hall, University of California, Berkeley, CA 94720-3110, USA

Abstract

In this study, we report a new technique based on gray systems theory for land-cover change prediction. Historical land-cover data were obtained from aerial photo interpretation. Change prediction was carried out for seven land-cover types in Claremont Canyon, Alameda County, California. The prediction results demonstrated that the prediction technique was effective.