Abstract Uncontrollable rapid changes in the Bogor-Puncak-Cianjur (BOPUNJUR) region occurred within one decade (1983-1993), particularly in the upper stream region of Ciliwung watershed. The areas which were once protected as a catchment have been converted into settlement areas or intensive agricultural lands. Therefore, identification of protection areas needs to be applied. The objectives of this study were (1) to identify the distribution of potential protection areas (2) to evaluate the existing land use in potential protection areas and also the Regional Land Use Planning of BOPUNJUR (RTRW). The study site was located in Ciawi, Megamendung and Cisarua sub-districts, Bogor District, West Java. Several landscape features (elevation, slope, soil, riparian zone, primary catchment area and potential landslide area) were used as criteria to identify the potential protection areas. The results showed that only 15.76 % of the study area was classed in the non-potential protection category while the 84.24 % was classed in the high, medium or low potential protection categories.

Key words: GIS, land use planning, landscape features, protection area.