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Land use and land cover study of the savannah ecosystem in the Upper West Region (Ghana) using remote sensing

The study investigates land use and land cover classification methods, land use and land cover change detection and the drivers of the changes in the Upper West Region of Ghana. Stratification of LANDSAT images prior to classification improves classification accuracy. Savannah woodland area decreased from 1986 to 2000, while areas of farmland, mixture of grasses and shrubs as well as water bodies increased. The soils under closed savannah woodland have the highest fertility, whereas the farmland ones have the lowest. From 1984 to 2000 population increased by 32% (75% are farmers). Declining soil fertility of farmlands and growing population induce expansion of farmland, causing loss of woodland.