Assessing Land Cover Change Trajectories in Olomouc, Czech Republic

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Abstract : Olomouc is a unique and complex landmark with widespread forestation and land use. This research work was conducted to assess important and complex land use change trajectories in Olomouc region. Multi-temporal satellite data from 1991, 2001 and 2013 were used to extract land use/cover types by object oriented classification method. To achieve the objectives, three different aspects were used: (1) Calculate the quantity of each transition; (2) Allocate location based landscape pattern (3) Compare land use/cover evaluation procedure. Land cover change trajectories shows that 16.69% agriculture, 54.33% forest and 21.98% other areas (settlement, pasture and water-body) were stable in all three decade. Approximately 30% of the study area maintained as a same land cove type from 1991 to 2013. Here broad scale of political and socio-economic factors was also affect the rate and direction of landscape changes. Distance from the settlements was the most important predictor of land cover change trajectories. This showed that most of landscape trajectories were caused by socio-economic activities and mainly led to virtuous change on the ecological environment.