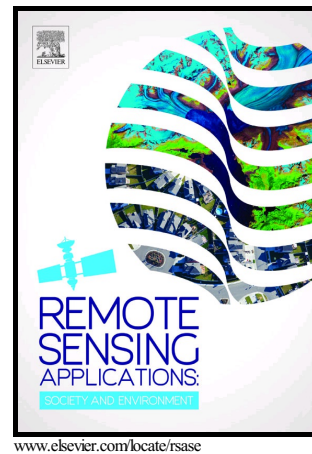# Author's Accepted Manuscript

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Landscape metrics for assessment of land cover change and fragmentation of a heterogeneous watershed

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Abstract:

With an aim to understand the fragmentation of Usri watershed with the aid of open access remotely sensed data and FRAGSTATS. Long term (1976-1989-2000-2014) Landsat satellite data sets have been used. The post classification comparison of statistics suggests transformation from dense forest to agriculture class. The landscape and class level metrics have confirmed watershed fragmentation. PCA analysis has produced two principal components (PC) and explained 94.8% of the total variance, first component (PC1) accounted for the 50.0% of the total variance while the second component (PC2) has accounted for the 44.8% of the total variance calculated from the core area metrics,