

Land Use and Land Cover Semantics: Principles, Best Practices and Prospects

K.O. Ahlqvist^a

^a Department of Geography, Ohio State University, USA - ahlqvist.1@osu.edu

THEME: DATA

KEY WORDS:

ABSTRACT:

After decades of accomplishments and faced with new technological and scientific insights, the field of land use and land cover (LULC) studies is seemingly at a crossroads for effective and open uses of data. The use of categorical LULC data poses a significant challenge because it usually leads to a binary treatment of the information in subsequent analysis. Still, LULC data offers a rich and generic resource and it is often used for purposes other than just finding out what the land cover is at a location; examples include climate modeling, monitoring of biodiversity, and simulation of urban expansion. Many of these uses call for deeper understanding of the LULC categories in order for the data to be re-purposed. As more and more land cover data sets have been developed there is also an increased recognition that variation in nomenclature and class definitions poses significant hurdles to effective and synergistic use of LULC resources. The presentation is based on a meta-analysis of more than a dozen recent papers on Land Use and Land Cover Semantics. In two parts, this presentation will provide i) a summary of current approaches to manage LULC semantics and ii) a forward-looking analysis of ongoing research and future prospects.