

Comparative Analysis of Different Land Use Land Cover (LULC) Maps in WRF Modelling Over Indian Region

Authors : Sen Tanmoy, Jain Sarika, Panda Jagabandhu

Abstract : The studies regarding the impact of urbanization using the WRF-ARW model rely heavily on the static geographical information selected, including domain configuration and land use land cover (LULC) data. Accurate representation of LULC data provides essential information for understanding urban growth and simulating meteorological parameters such as temperature, precipitation etc. Researchers are using different LULC data as per availability and their requirements. As far as India is concerned, we have very limited resources and data availability. So, it is important to understand how we can optimize our results using limited LULC data. In this review article, we explored how a LULC map is generated from different sources in the Indian context and what its significance is in WRF-ARW modeling to study urbanization/Climate change or any other meteorological parameters. Bibliometric analyses were also performed in this review article based on countries of study and indexed keywords. Finally, some key points are marked out for selecting the most suitable LULC map for any urbanization-related study.

Keywords : LULC, LULC mapping, LANDSAT, WRF-ARW, ISRO, bibliometric Analysis.

Conference Title : ICMCAP 2024 : International Conference on Meteorology, Climatology and Atmospheric Physics

Conference Location : Sydney, Australia

Conference Dates : November 04-05, 2024