

The United States National Land Cover Database, Delivering Operational Land Cover Data for almost 20 years– Lessons Learned and Future Plans

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Abstract:

With the recent release of the new National Land Cover Database (NLCD 2011), NLCD has now completed three major product releases since 2001, providing a 10 year land cover change story for the United States at 5 year intervals. This is in addition to the initial NLCD product produced for nominal year 1992. Having a decade of change information now available enables users to better understand the trajectory of land cover change patterns, and provides critical information to advance understanding of land cover change processes. Constructed by the 10-member U.S Federal interagency

Multi-Resolution Land Characteristics Consortium (MRLC), NLCD represents a 20 year collaborative Federal government effort to combine resources to efficiently provide digital land cover for the Nation. NLCD currently supports thousands of applications in such areas as ecosystem status and health, spatial patterns of biodiversity, indications of climate change, and best practices in land management. This legacy provides opportunity to reflect upon what has made NLCD successful from an operational land cover perspective. New NLCD research is improving ways to assess and characterize longer land change monitoring patterns with historical products, adding new products and analysis into NLCD (such as percent shrub and percent bare ground), and providing new delivery, visualization and analysis tools to improve product understanding and user access. This will culminate with a new suite of product releases called NLCD 2016. This paper will provide an overview of the development of NLCD, overview what has made the program an operational success, and provide a comprehensive discussion of future plans.