

# **Time Series of Remote Sensing Data for Land Change Science**

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*Abstract*—We discuss the application of wide-field-of-view satellite data to land change science from a user viewpoint. We first identify the key scientific questions and highlight the complex nature of land change. We then examine the basic data requirements and discuss criteria for data selection and the tradeoffs involved. Methods to exploit optimally existing datasets involve multisensor analyses either across spatial resolutions or to produce consistent time series from successive satellite sensors with diverse attributes.

*Index Terms*—Land-cover change, terrestrial ecosystems.