



## Big data sets in environmental studies

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### Abstract

Big Data datasets for environmental studies play a crucial role in understanding, monitoring and addressing large-scale environmental issues. Big Data datasets for environmental studies deal with huge volumes of data coming from various sources such as satellites, remote sensors, weather stations, sensor networks and mobile devices. These datasets include detailed information on climate change, biodiversity, air quality, water resources and other environmental parameters. Integrating and analyzing data from different sources allows for a more comprehensive understanding of environmental standards and helps in making informed decisions. The generation of environmental data occurs in real time, especially with the increased use of sensors and continuous monitoring technologies. The ability to handle the velocity of data is essential for detecting rapid changes in the environment and responding to critical events such as natural disasters. Predictive models help predict climate patterns, identify areas of environmental risk and assess the impacts of human activities on the ecosystem. This data is crucial for developing mitigation strategies, adapting to climate change and conserving biodiversity. In summary, Big Data datasets play a fundamental role in environmental studies, providing a comprehensive and real-time understanding of environmental challenges, enabling the implementation of effective strategies for conservation and sustainability.

**Keywords:** Big Data; data sets; environment.

**JEL Codes:** C4; C8; Q5.