# ASSESSING LAND-USE AND LAND-COVER DYNAMICS FOR THE YELLOW RIVER BASIN IN CHINA

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**THEME: BIOD** Forests, biodiversity and terrestrial ecosystems.

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**ABSTRACT:**

The Yellow River Basin (Chinese: Huang He) in China is one of the most dynamic river basins worldwide. The long and intensive interrelationship between humans and their nature has been shaped the landscape characteristics for centuries, even millennia. In recent decades, the Yellow River Basin is facing a spectacular boom, but mainly achieved at the expenses of the environment by over-exploiting the natural resources provided within the basin. Despite these pressing dynamics, no comprehensive and detailed change detection analysis has been conducted for this basin so far. This study provides a change detection analysis and analyses the changes between two timesteps (2003 and 2013) and depicts the hot-spots of change. The land-use and land-cover for each time step was delineated by using phenological indices derived from a MODIS-NDVI time series and served as input for a Random Forest classifier. This information about land cover is a key component of effective planning and management and valuable to develop solutions for a sustainable resource management.

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