

## **Land use dynamics of the South Moravian region during last 170 years**

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Quantitative analysis of the dynamics of the Czech landscape development is an integral part of a research project MSM 6293359101. The dynamics is researched from the perspective of land use and is based on the analysis of old topographic maps in a medium to large scale from five periods, namely 1830s, 1880s, 1950s, 1990s and 2000s. These maps were manually vectorized with the smallest distinguished area of 0.8 ha. There have been distinguished nine land use categories. The analysis includes among others changes in the area of these categories and delimitation of stable and unstable areas from the perspective of land use. First results concern a map sheet M-33-XXIX from the topographic maps in the scale 1:200000 covering part of South Moravia. This region is typical agricultural landscape with prevailing arable land that covers more than 55% of the total area and that has not significantly changed during the researched period. Second biggest and also stable area is represented by forest with more 21% of the total area. A significant drop was identified with the permanent grassland with more than 10% from 1830s to 1950s. On the other hand the development of settlements (i.e. built up area) is well apparent. The area of vineyards remained more or less the same but the area of orchards has increased. An increase was also noted for water area (reestablishment of dried ponds or creation of new water areas), other area and recreational area (this started to occur since 1950s). Mostly stable areas are those of arable land and large forest complexes in the north, northwest and also floodplain forests in the south. Also settlements cores remained stable during the researched period. The most dynamic areas are connected with floodplains of the Svatka, Svitava and Dyje rivers.