



## **Human impacts of hydrometeorological extremes in the Bohemian-Moravian Highlands derived from documentary sources in the 18th–19th centuries**

Lukáš Dolák (1,2), Rudolf Brázdil (1,2), Hubert Valášek (1,3)

(1) Department of Geography, Masaryk University, Brno, Czech Republic, (dolak@mail.muni.cz), (2) Global Change Research Centre AS CR, Brno, Czech Republic (dolak@mail.muni.cz), (3) Moravian Land Archives, Brno, Czech Republic (valasek@mza.cz)

The extent of damage caused by hydrometeorological events or extremes (HME) has risen up in the entire world in the last few years. Especially the floods, flash floods, torrential rains and hailstorms are the most typical and one of the most frequent kind of natural disasters in the central Europe. Catastrophes are a part of human history and people were forced to cope with their consequences (e. g. material damage, economical losses, impacts on agriculture and society or losses of human lives). This paper analyses the human impacts of HME in the Bohemian-Moravian Highlands (central part of the Czech Republic) on the basis of documentary sources from the 18th–19th centuries. The paper presents various negative impacts of natural disasters on lives and property and subsequent inconveniences of Czech peasants. The preserved archival documents of estates or domains became the primary sources of data (e. g. taxation reliefs, damaged records, reports of afflicted farmers, administrative correspondence etc.). Particularly taxation reliefs relate to taxation system in the Czech lands during the 17th–19th centuries allowing to farmers to ask for tax alleviation when their crops were significantly damaged by any HME. These archival documents are a highly valuable source for the study of human impacts of natural disasters. Devastating consequences of these extremes affected individual farmers much more than the aristocracy. Floods caused inundations of farmer's fields, meadows, houses and farm buildings, washed away the arable land with crops, caused losses of cattle, clogged the land with gravel and mud and destroyed roads, bridges or agricultural equipment. Afflicted fields became worthless and it took them many years to become fertile again. Crop was also damaged by hailstorms, droughts or late/early frosts. All these events led to lack of food and seeds in the following year and it meant the decrease of living standard, misery and poverty of farmers. Acquired results could give better insight of human impacts of HME in history and help to compare the negative consequences in the past and present.