Geophysical Research Abstracts Vol. 21, EGU2019-3268, 2019 EGU General Assembly 2019 © Author(s) 2019. CC Attribution 4.0 license.



## Droughts derived from documentary data: a worldwide overview

Rudolf Brázdil (1,2), Andrea Kiss (3,4), Jürg Luterbacher (5,6), David J. Nash (7,8), Ladislava Řezníčková (1,2) (1) Institute of Geography, Masaryk University, Brno, Czech Republic (brazdil@sci.muni.cz), (2) Global Change Research Institute CAS, Brno, Czech Republic, (3) Institute for Hydraulic Engineering and Water Resources Management, Vienna University of Technology, Vienna, Austria, (4) Department of Historical Auxiliary Sciences, Institute of History, University of Szeged, Hungary, (5) Department of Geography, Climatology, Climate Dynamics and Climate Change, Justus Liebig University, Giessen, Germany, (6) Centre for International Development and Environmental Research, Justus Liebig University Giessen, Giessen, Germany, (7) School of Environment and Technology, University of Brighton, Brighton, United Kingdom, (8) School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, Johannesburg, South Africa

Documentary evidence can be used for obtaining high-resolution data about past droughts, particularly in the pre-instrumental period. The wide range of documentary evidence includes general annals, chronicles, memoirs, diaries kept by missionaries, travellers and persons specifically interested in the weather, the records kept by administrators tasked with keeping accounts and other financial and economic records, legal-administrative evidence, religious sources, letters, marketplace and shopkeepers' songs, newspapers and journals, pictographic evidence, chronograms, epigraphic evidence, early instrumental observations, society commentaries, compilations and books. These sources are generally available for many parts of the world. This variety of documentary information allows reconstruction of hydroclimatic conditions in the form of series of precipitation totals, drought frequencies or drought indices. Documentary-based drought reconstructions can be used to study long-term spatiotemporal hydroclimate fluctuations, major drought events, relationships with external forcing and large-scale climate drivers, socio-economic impacts and human responses in the scale of individual countries, regions or continents. In the presentation, we provide a worldwide overview of existing documentary-based drought studies for each continent, with a focus on Europe, Asia (China), Africa, the Americas and Australia. Finally, conclusions concerning documentary-based drought analyses are drawn and challenges for the future use of documentary evidence in the study of droughts are presented. (For detailed results see Brázdil, R., Kiss, A., Luterbacher, J., Nash, D.J., Řezníčková, L.: Documentary data and the study of past droughts: a global state of the art. Climate of the Past, 14, 1915–1960, doi: 10.5194/cp-14-1915-2018, 2018.)