



## **Tendencies in the flow regime of the Elbe River in the hundred years series**

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Variability of water regime in the basin is influenced by development of vegetation cover in the annual cycle, but also by its changes in the span of decades. In analyses of data of the Elbe River the simulations of rainfall-runoff process have been used with the intention to follow the possible role of vegetation cover and land use. The effects of climatic variability could be partially eliminated using this modelling. The differences between observed and simulated flows in the period 1895 - 2002 can be considered as useful tool for the assessment of changes of water regime. The initial attention has been given to the period 1895 - 1955, i.e. before large reservoirs were in operation and the conceptual rainfall-runoff model SAC-SMA has been calibrated using this period. Varying differences of observed and simulated flows indicate the changes of runoff. This is apparent also from comparison of flow duration curves of observed and simulated flows for different periods. The growing agricultural production and wood stock in forests are also the reasons for evapotranspiration change and consequently runoff changes.

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