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18. abstract Building up on the scenarios Globalization and Differentiation with respective paths of production activities in manufacturing sectors, corresponding scenarios of industrial water demand and surface water withdrawals were derived for the Elbe River Basin. For each of the macroeconomic scenarios two different variants with a more conventional and a more stringent environmental policy especially with respect to water use efficiency were developed. All assumptions on the future development of the efficiency of water use were based on an analysis of technological trends in water intensive industries. This procedure included a survey in 1600 manufacturing firms in the Elbe River Basin in order to gain plant level information on current as well as future water demand and water use patterns. As a secondary data source official industrial water use statistics were used, including special analyses for the Elbe River Basin. In the majority of scenarios, aggregate manufacturing water demand shows a decline of surface water withdrawals for industrial purposes. One exception is scenario A ⁰ with a slight 2% increase of withdrawals up to the year 2020. This development is caused by a relatively dynamic development of sectoral production e. g. in the chemical industry, along with a moderate increase of water use efficiency. In a further step, sectoral scenarios for water withdrawals and water use were transferred to individual industrial water users which are modelled as water abstractors within an interactive simulation system for river-basin management.	
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