



## Assessing Patterns of Vulnerability in Germany

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Climate impacts differ between regions of Germany depending on their exposure and sensitivity. Also adaptive capacities differ within Germany, depending on socio-economic conditions. When assessing potential future impacts and vulnerabilities, climatic as well as socio-economic changes have to be considered. These aspects have been taken into account when developing a consistent methodological framework for a vulnerability assessment of Germany. The assessment method is based on systemic approach using cause-effects chains between climate signals and climate impacts for identifying the most important chains and as basis for their quantification, based on appropriate but simple climate impact models or indicators. If no quantitative data is available, expert judgments are used to estimate future trends of specific climate impacts. The adaptive capacity is differentiated into generic capacity, expressed by generic indicators, as well as sector-specific capacity, estimated by expert judgments. To compare and aggregate the quantitative and qualitative data, semi-quantitative classes are created. This structured approach helps to identify the most important climate impacts and as well as the available knowledge and knowledge gaps.

The methodology is constructed so that it can easily be appended with new knowledge as well as transferred to other regions. In Germany, it is conducted in a cooperative project between scientists, who develop the method and prepare the assessment, and scientific officers of 16 different public authorities, who support the scientists by their expert knowledge and by focusing on most relevant aspects.

The vulnerability assessment aims at identifying spatial patterns of vulnerability inside a sector as well as across sectors. The assessment was commissioned by the Inter-ministerial Working Group on adaptation of Germany to support the further development of the national adaptation strategy. It will be used as basis for the second Adaptation Action Plan of the German Strategy for Adaptation to Climate Change.