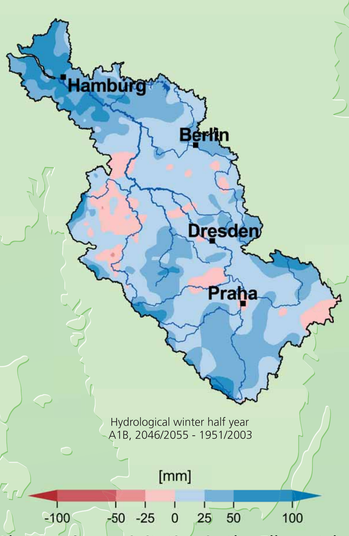
More floods due to climate change?

Especially in the winter, precipitation will increase in the long term, thereby increasing the risk of flooding.

Flooding is caused by heavy recipitation and snowmelt. In large rivers, flooding is particularly caused by long-lasting precipitation over large areas; in smaller bodies of water, short periods of heavy rain can also cause flooding. As a result of climate change, Central Europe will experience more and more mild, rainy winters, while the summers will become drier on average. Furthermore, scientists are predicting a general increase in extreme weather situations, including heavy rain. This indicates that we will have to deal with more floods as well as more low water events in the future.

Precipitation changes in the winter



Changes in precipitation in the Elbe catchment area until the middle of the 21st century in the winter half year: precipitation will increase in all of the blue areas.

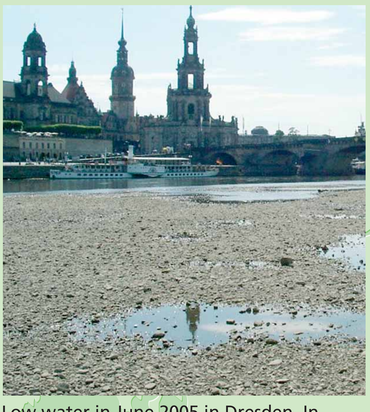
How definite are the statements about climate change?

We have already been able to see many changes. The trends are confirmed by data – what is unclear is the actual scope, especially for very localized weather events like strong precipitation. However, this uncertainty is no reason to remain inactive. Flexible solutions are needed that can be adapted to the changing conditions.

Heavy rain can cause extreme flooding of smaller rivers in particular. In the coming years, extreme rainfall is expected to increase, especially during the summer.

What can we do? Adaptation is the key!

Experts in the fields of hydrology and urban planning are working to develop sustainable and flexible measures for preventative flood protection. These projects include structural changes as well as adapting usage through improved planning, for instance in the fields of tourism and settlement development.



Low water in June 2005 in Dresden. In the future, low water will also be a more common occurrence on the Elbe. This will especially affect shipping.

Sources:
- Image 1: Werner, P.C. (2009): Regionale Auswirkungen des Klimawandels im Elbe-Einzugsgebiet. Presentation. National GLOWA-Conference Oct. 12-14, 2009, Potsdam
- Image 2: Michael Hoffmann
- Image 3: Philipp Hertzog

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