Swiss Climate Change Scenarios: The CH2011 Initiative

The CH2011 Scenarios provide a new assessment of how climate may change in Switzerland over the 21st century. They are based on a new generation of global and European-scale regional climate models. The model data have been provided by several international projects. New statistical methods were used to generate multi-model estimates of changes, and associated uncertainties. Projected changes in temperature, precipitation and extreme events are provided for three representative regions of Switzerland on seasonal time-scales, and also at individual station sites on daily timescales.

Future Swiss Climate
- Swiss climate projected to depart significantly from present and past conditions
- Very likely increase in mean temperature
- Likely decrease of summer mean precipitation by the end of the century all over Switzerland
- Likely increase of winter precipitation in Southern Switzerland
- Even if global temperature change stabilized below 2°C (rel. to pre-industrial levels), a further warming for Switzerland of 1.4°C toward end of the century projected
- Without mitigation efforts the warming and summer drying would be twice to three times as large

Changes in Extremes
- Indication of more frequent, intense and longer-lasting summer warm spells and heat waves
- Number of cold winter days and nights expected to decrease
- Projections of the frequency and intensity of precipitation events more uncertain; substantial changes cannot be ruled out
- Shift from solid (snow) to liquid (rain) precipitation expected => increase in flood risk in the lowlands

Conclusion
The new CH2011 scenario have been released on 28 September 2011. The data should serve as a basis for a variety of climate change impact studies in Switzerland. They should help guide decision making related to future Swiss climate adaptation and mitigation strategies. Well-established national climate scenarios allow end users to explore possible impacts and adaptation strategies in a coherent manner.

Resources
- Website
  - www.ch2011.ch
- Download
  - Full Report (English)
  - Summaries (English, German, French, Italian)
  - Climate Scenario Data ➔ www.ch2011.ch

Publications