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## Changes in Tmin, Tmax, and frost days in time slice simulations with ECHAM5

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The analysis of daily minimum and maximum temperatures provides additional information to the picture of projected climate change. Changes in frost days, for example, affect ecosystems and human activities in many ways. Also temperatures above a certain threshold can have a serious effect on, e.g., human health, as demonstrated by the 2003 heat summer in Central Europe.

Timeslice simulations with the atmospheric GCM ECHAM5/T106 are used for this study. Sea surface temperatures and sea ice cover are obtained from a coupled simulation with the Hadley Centre model. They are the same as utilised in the Prudence project. Greenhouse gases are prescribed according to the scenario A2. The simulations cover the period 1961-1990 and 2071-2100. Results show a large decrease in the number of frost days in Eastern Europe, Western North America and the Southern Andes. Changes in the diurnal temperature range are moderate indicating a fairly equal projected increase of Tmin and Tmax.