



Future changes in intense and prolonged precipitation events in Norway

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Between the two 30-year periods 1961-90 and 1979-2008, winter precipitation in Norway has increased by 5-25%. This trend is expected to continue in the future, with extreme precipitation events becoming more frequent and intense. Such changes may threaten important infrastructure that are designed along the guidelines based on known historical precedence. InfraRisk is a project that aims to improve the understanding of past and future variability of extreme weather events in Norway, and to gain knowledge about their impact on Norwegian infrastructure, such as roads, railways and related buildings.

In the current study we have assessed future changes in intense and/or prolonged precipitation events in Norway, using climate projections which are dynamically downscaled with the Norwegian HIRHAM model. Annual maximum 1-, 5-, and 10-day precipitation are shown as averages for the two periods 1961-1990 and 2071-2100. Peak over threshold for the same variables, given the thresholds of 10 mm, 40 mm and 60 mm, respectively, are also presented.