## Wildfires in Fennoscandia under changing climate and forest cover

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- Warming climate and more frequent drought events increase forest fire risk
- The number of large (> 10 ha) fires may increase by several tens of percentages by the end of the century, assuming RCP4.5
- JSBACH land surface model is used to study the effect of harvesting intensity and climate change on forest fires
- Regional simulations have been made using the JSBACH-Spitfire driven by CORDEX data and following RCP4.5 and RCP8.5

Black carbon (BC) emissions from forest fires are being assessed using the SILAM atmospheric composition model

Regional fallout summaries from the 2018 fires will be calculated

- Efficient prevention and forest management, and technological development can help to extinguish wildfires
- A survey on the rescue and forest sectors' perceptions on forest fires in the future will be conducted

 FIRMS/VIIRS satellite product provide ~ 1000 active fire detections over Finland each year, of which ~ 20% corresponds actual fires

- RS techniques may be useful in operational fire and rescue services, but need further improvements
- Fire spread model Prometheus will be implemented into the operational weather service infrastructure of the FMI
- This integration provides efficient support to the rescue services during large scale forest fires

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