

**National Climate Observing System of Switzerland (GCOS Switzerland)**

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The Global Climate Observing System GCOS was established in 1992. It supports the implementation of systematic climate observation in accordance with the requirements of the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. Primarily, the GCOS observations should assist Parties in meeting their responsibilities under UNFCCC. Furthermore, GCOS observations provide the systematic observations needed by the World Climate Research Programme (WCRP) and the Intergovernmental Panel on Climate Change (IPCC). ∂ A successful implementation of GCOS relies substantially on a well-functioning coordination at national level. Switzerland has a long tradition of climate observation and maintains valuable long-term climatological data series in the atmospheric and terrestrial domain. In Switzerland, climate observation is coordinated by the Swiss GCOS Office at the Federal Office of Meteorology and Climatology MeteoSwiss. The climate-relevant measurements are conducted by federal offices, research institutes and universities. In collaboration with all partner institutions in Switzerland, the Swiss GCOS Office recently compiled an inventory of the most valuable long climate measurement series and international data centres in Switzerland including an assessment of the future prospects of these long-term climatological data series. Additionally, the role of satellite observations was mentioned for each essential climate variable, emphasizing the importance of Earth observation data for climate monitoring. Based on this report, the Swiss Federal Council decided in June 2008 to ensure the long-term continuation of at risk climate measurement series and international data centres in Switzerland. ∂ In this presentation, the activities of GCOS Switzerland are explained, including scientific examples from the atmospheric and terrestrial domain, the role of satellite-based products, and the challenges to ensure the long-term sustainability of GCOS Switzerland.