

---

Number	EXP10
Indicator name	Climatic drought expressed by the Standardized Rainfall Evapotranspiration Index (SREI)
Area	E
Indicator definition	<p>The index is calculated using standardization of the difference in total rainfall and the potential evapotranspiration of grassland for the given period using the statistical probability distribution. SREI values as standard variables can be compared in different places and periods, therefore its calculation is recommended by the World Meteorological Organization (WMO) and the World Food and Agriculture Organization (WFAO). A rolling period of 12 months (from January to December of given year) shall be established for the purposes of this indicator.</p> <p>Categories of drought based on the index SPEI</p> <ul style="list-style-type: none"><li>0 - without drought</li><li>1 - weak drought</li><li>2 - moderate drought</li><li>3 - significant drought</li><li>4 - exceptional drought</li><li>5 - extreme drought</li></ul>
Indicator unit	index
Key words	Drought, precipitation
Reason for tracking and usability	The indicator is one of the common drought indicators. The Standardized Rainfall Evapotranspiration Index (SREI) is one of the drought indexes that make it possible to assess climatic drought using daily meteorological measurements.
Completeness, representativeness, validity	The indicator is one of the common drought indicators. It can be combined with others that evaluate other aspects of this phenomenon (soil). The data are objectively obtained. This indicator has no significant limits.

---

---

Description of data processing	The index is calculated using the standardization of the difference in the total rainfall and the potential evapotranspiration of the grassland over the evaluated period using a statistical probability distribution. Potential evapotranspiration as opposed to actual evapotranspiration expresses the water output by soil and plant cover, assuming an optimal supply of water, so its calculation is not dependent on the real state of soil moisture. SREI calculation requires long-term (at least 30 years) quality and complete data series of all meteorological elements needed to calculate potential evapotranspiration, namely average daily air temperature, average daily water vapor pressure (humidity) sunshine duration per day, average daily wind speeds and daily total rainfall. The calculation is performed on average in the Czech Republic at 120 climatological stations.
Data source	Data sources are data from long-term functioning meteorological stations of official institutions.
Tracking frequency	Yearly (or by Klimasken monitoring frequency)
Urban influence	The indicator is partially influenced by the city/city district/municipality.
Presentation method	The results will be presented in a single Klimasken framework on a five-step scale according to specified intervals:
Responsibility	Klimasken processor, city/city district/municipality

---