



REPUBLIKA SLOVENIJA  
MINISTRSTVO ZA OKOLJE IN PROSTOR

AGENCIJA REPUBLIKE SLOVENIJE ZA  
OKOLJE

# Drought Risk Assessment

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## Legal background

**DECISION No 1313/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**  
**of 17 December 2013**  
**on a Union Civil Protection Mechanism**  
**(Text with EEA relevance)**

*Article 6*

**Risk management**

In order to promote an effective and coherent approach to prevention of and preparedness for disasters by sharing non-sensitive information, namely information whose disclosure would not be contrary to the essential interests of Member States' security, and best practices within the Union Mechanism, Member States shall:

- (a) develop risk assessments at national or appropriate sub-national level and make available to the Commission a summary of the relevant elements thereof by 22 December 2015 and every three years thereafter;



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# Methodological background



EUROPEAN COMMISSION

Brussels, 21.12.2010  
SEC(2010) 1626 final

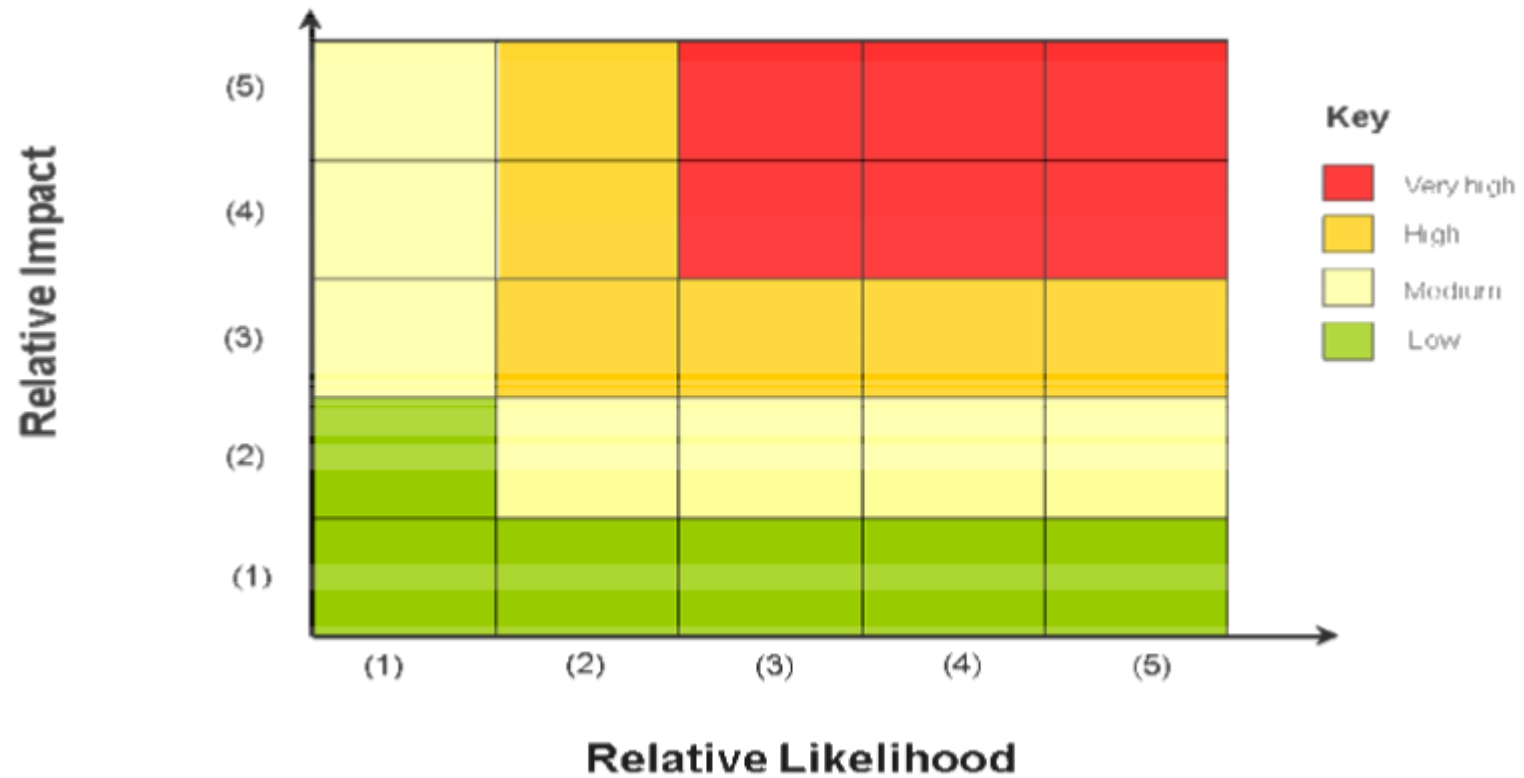
**COMMISSION STAFF WORKING PAPER**

**Risk Assessment and Mapping Guidelines for Disaster Management**



## Methodology

### Consequence/probability matrix



- EU guidelines
- ISO 31010:2009 Annex B.29



## Methodology

1	2	3	4	5
Once every 250 years (probability 0.4 %)	Once every 100 to 250 years (probability 0.4 to 1%)	Once every 25 to 100 years (probability 1 to 4 %)	Once every 5 to 25 years (probability 4 to 20 %)	More often than one every 5 years (probability over 20 %)
minimal threat	probable, less likely threat	probable threat	general threat	immediate threat

### CLASS OF IMPACT – economic damage

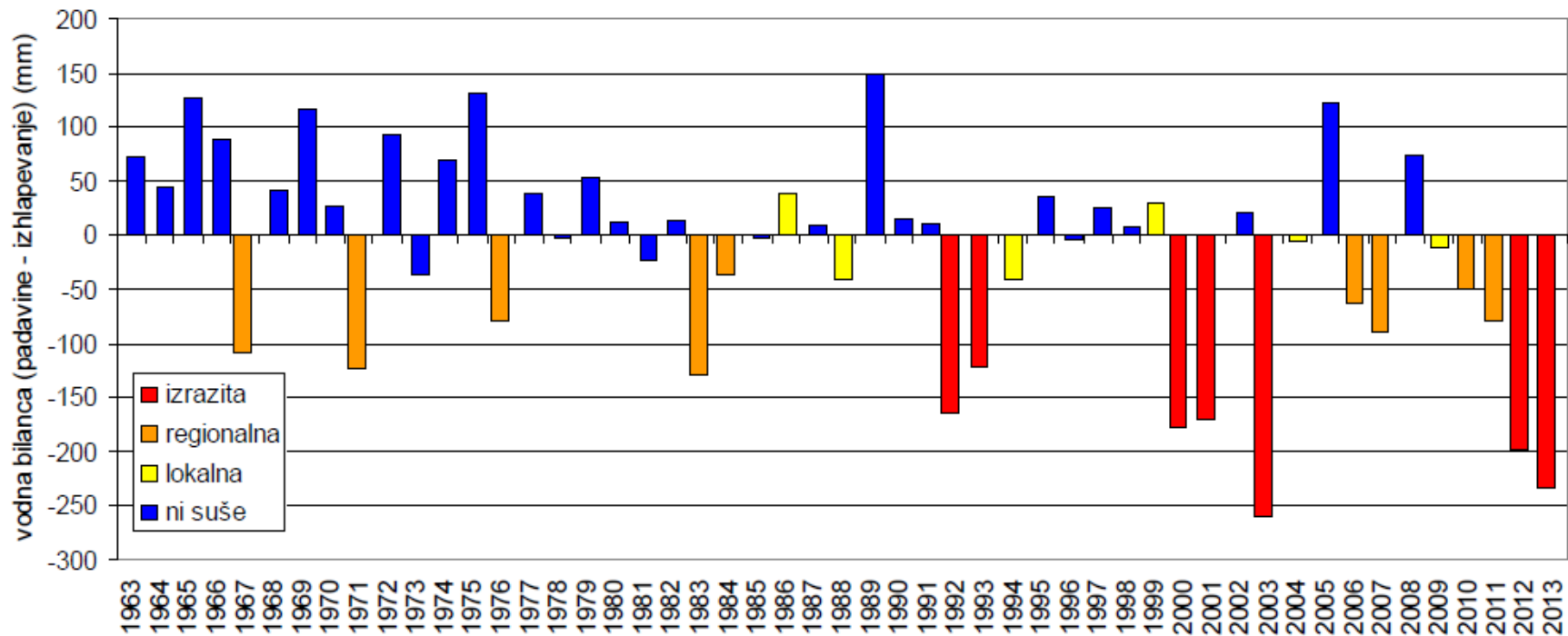
1	2	3	4	5
Up to 0.3 % GDP	0.3 % to 0.6 % GDP	0.6 % do 1.2 % GDP	1.2 % do 2.4 % GDP	Over 2.4 % GDP
<100 M€	100 – 220 M€	220 – 440 M€	440 – 880 M€	> 880 M€



## Methodology – analysis of agricultural drought

Surface water balance deficit is used as indicator of agricultural drought  
In Slovenia in last ~20 years.

Weighted average of SWBD for main stations since 1963

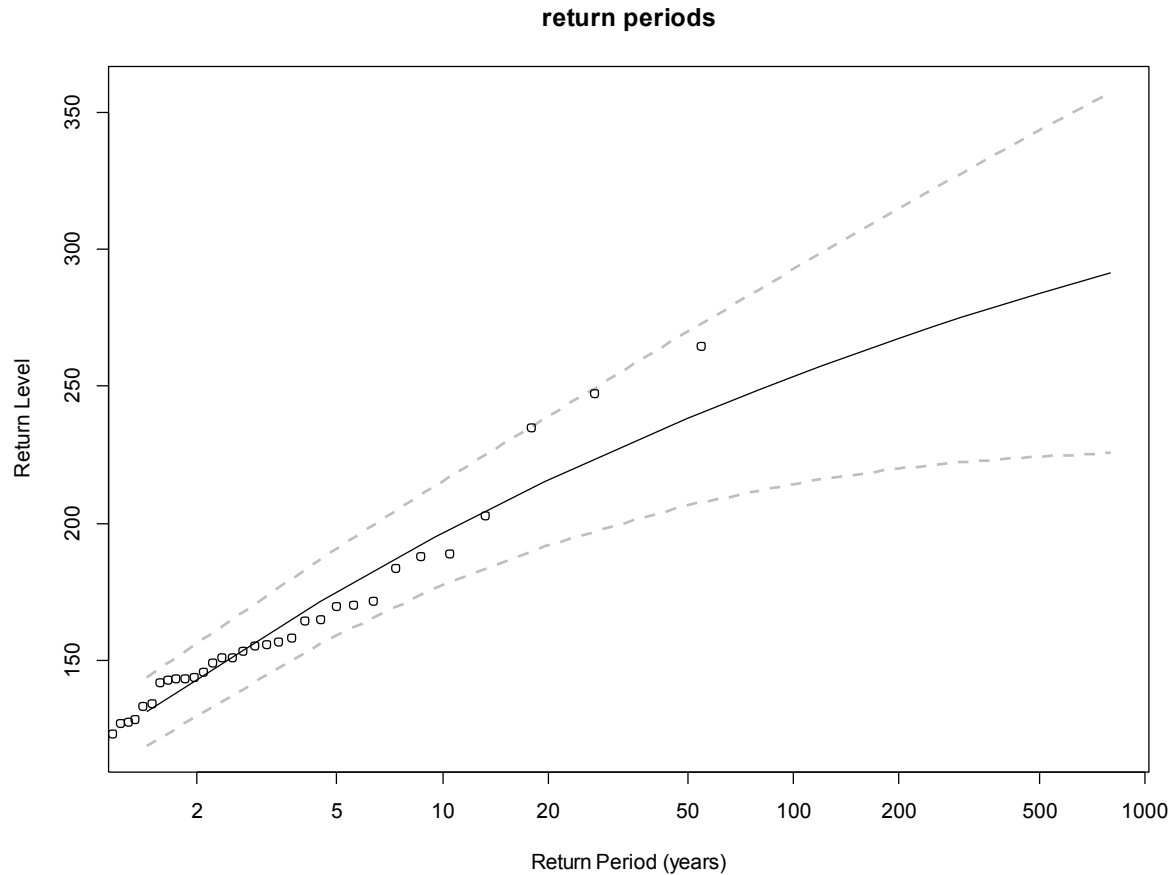






## Methodology – analysis of agricultural drought

### GEV analysis of return periods



Murska Sobota

2003,2013 ~ 50 years  
1992 ~ 20 years  
2000 ~ 10 years  
2012 ~ 5 years





## Methodology – analysis of agricultural drought

