



REPUBLIC OF SLOVENIA
MINISTRY OF THE ENVIRONMENT AND SPATIAL PLANNING

Drought Risk Management in Slovenia

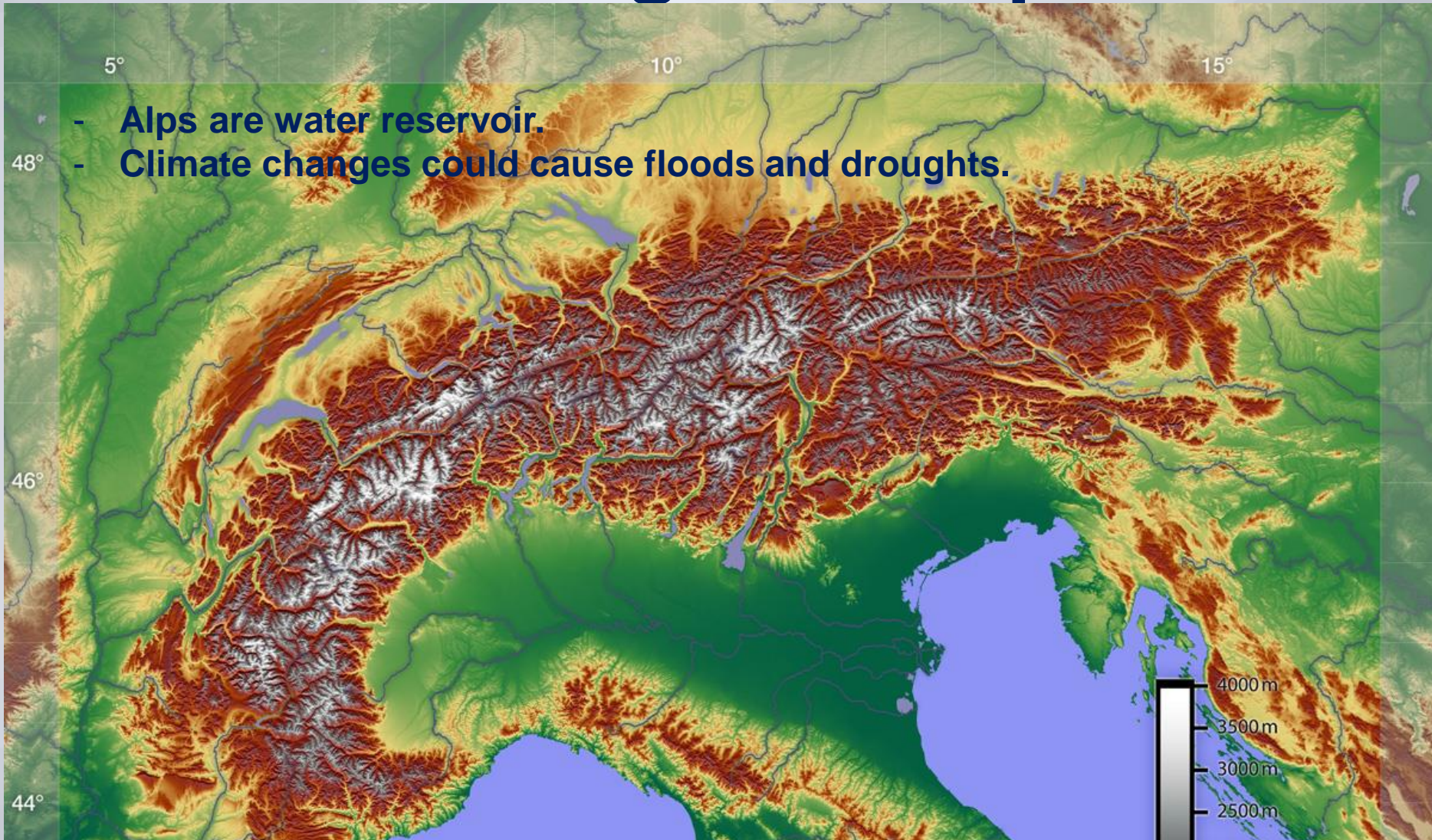
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Ministry of the Environment and Spatial Planning



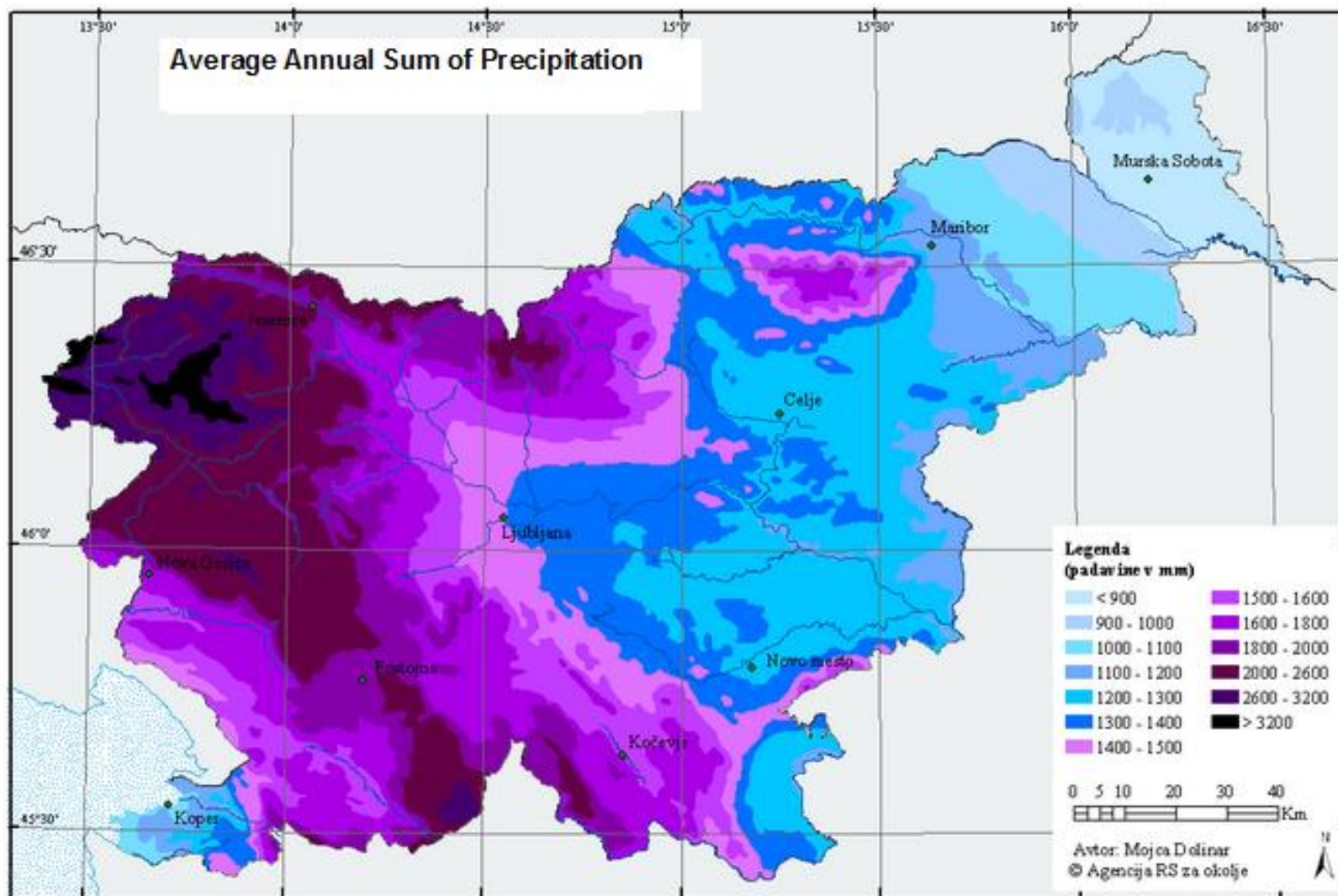
Drought and Alps

- Alps are water reservoir.
- Climate changes could cause floods and droughts.





Droughts in Slovenia





Impacts on Agriculture

Highest financial losses are listed below:

- 128 mil EUR 2003
- 50 mil EUR 2006
- 16 mil EUR 2007
- 57 mil EUR 2012
- 106 mil EUR 2013



Drought: natural disaster or poor management?



Other Impacts

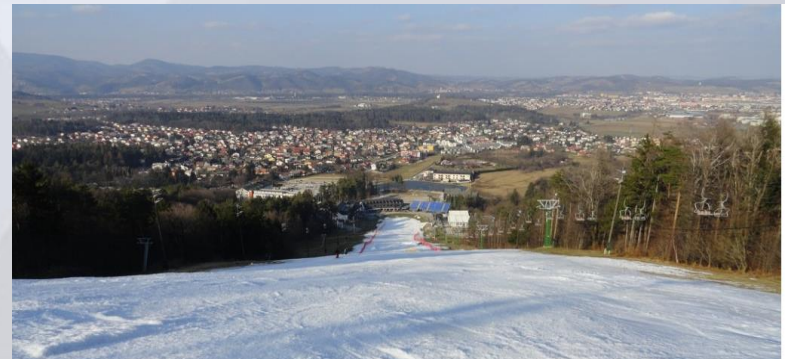
Limiting water consumption in households (low groundwater level, low flows at the springs).

Impact on electricity production due to low river flows.

Drought has impact on tourism in both summer and winter - the lack of snow on the ski slopes.



Kranjskogorsko smučišče je odvisno od tehničnega zasneževanja. Do današnjega dne pogojev za izdelavo tehničnega snega še ni bilo. Foto: Klemen Korenjak

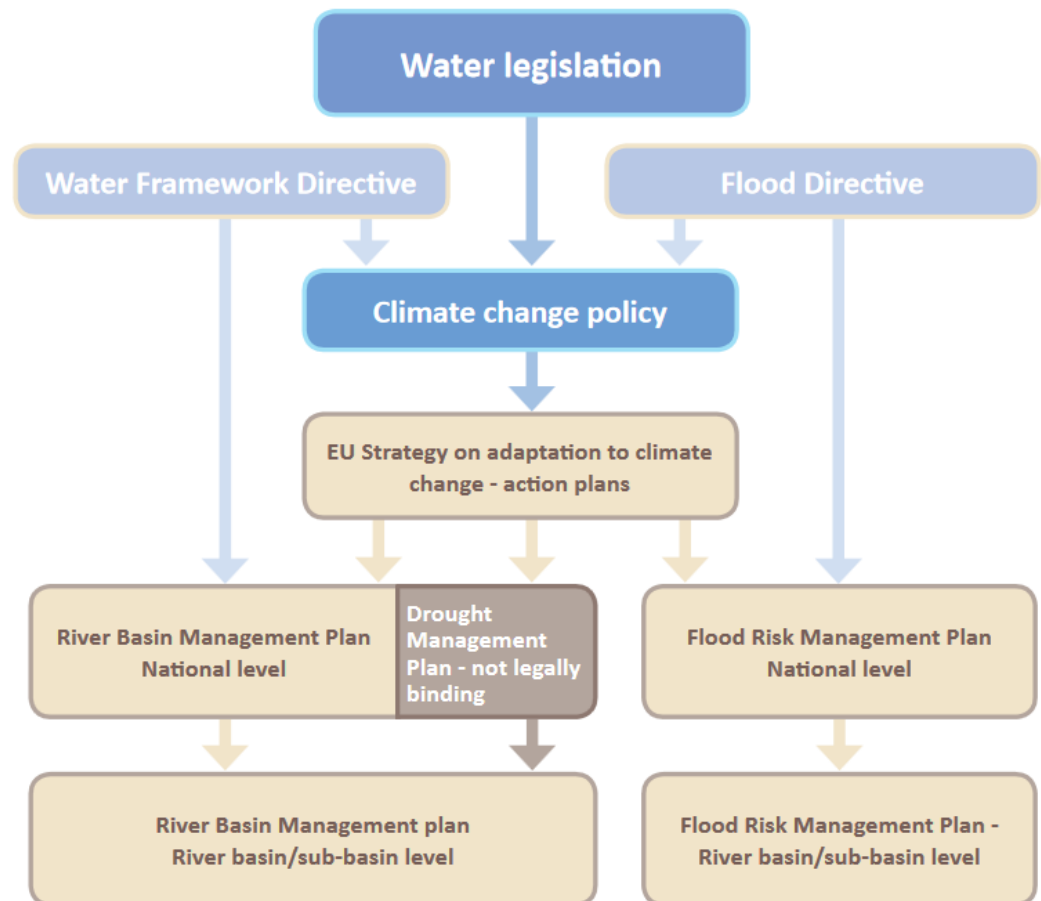


EU Legislation



Guidelines for preparation of the Drought Management Plans

*Development and implementation
in the context of the EU Water Framework Directive*



Integrated water management – planning process in the context of the Water Framework Directive and Flood Directive



Program of Measures

Drought is recognized as a problem in Slovenia, therefore there are measures provided in the River Basin Management Plan.

- Conservation and regulation of water quantities (U2a - RBMP).
- Preparing the selection of indicators for announcing different levels of drought and drought thresholds (OS3.2b8- RBMP).

Flood Risk Management Plan

- Implementation of hydrological and meteorological monitoring (U4).



DMCSEE
*Drought Management Centre
for Southeastern Europe*





Slovenian Legislation

The objective of the Water Act is to preserve and regulate water quantities.

Article 111 determines restriction of water rights - limiting water quantities.

Measures include the enrichment of water bodies during low water conditions.

Artificial recharge of river Reka - as an example of a good practice:



River Reka

...and then cross border
into the Adriatic Sea
as the Timav river in Devin.



Water from reservoirs Mola and Klivnik is used for enrichment Reka
flow in drought months. Reka flows into Škocjan caves...





Measures in Agriculture

Ministry of Agriculture, as two of the possible measures, is already promoting:

- more intensive irrigation (which is still very poorly developed in comparison with the Mediterranean countries),**
- production of drought-resistant agricultural crops and according to natural conditions.**





Measures in Practice

- **Reduce:** reducing water loss and increase water efficiency in agriculture, industries and cities.
- **Replenish:** replenishing aquifers, lakes, reservoirs and rivers so they provide a buffer for periods of extreme droughts.
- **Putting the right price tag on water.**
- **Allocating water and water-related funding more efficiently.**
- **Improving drought risk management.**
- **Considering additional water supply infrastructures.**
- **Fostering water efficient technologies and practices.**
- **Fostering the emergence of a water-saving culture.**
- **Improve knowledge and data collection.**
- **Preservation of healthy river ecosystem and ecosystem services.**
- **Adapting winter tourism.**



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Thank you for your attention!