



LIFE20 CCA/HU/001604

CHALLENGES OF HEAVY RAIN AND RELATED FLASH FLOOD EVENTS IN RURAL AREAS

INTRODUCTION OF LIFE LOGOS 4 WATERS PROJECT

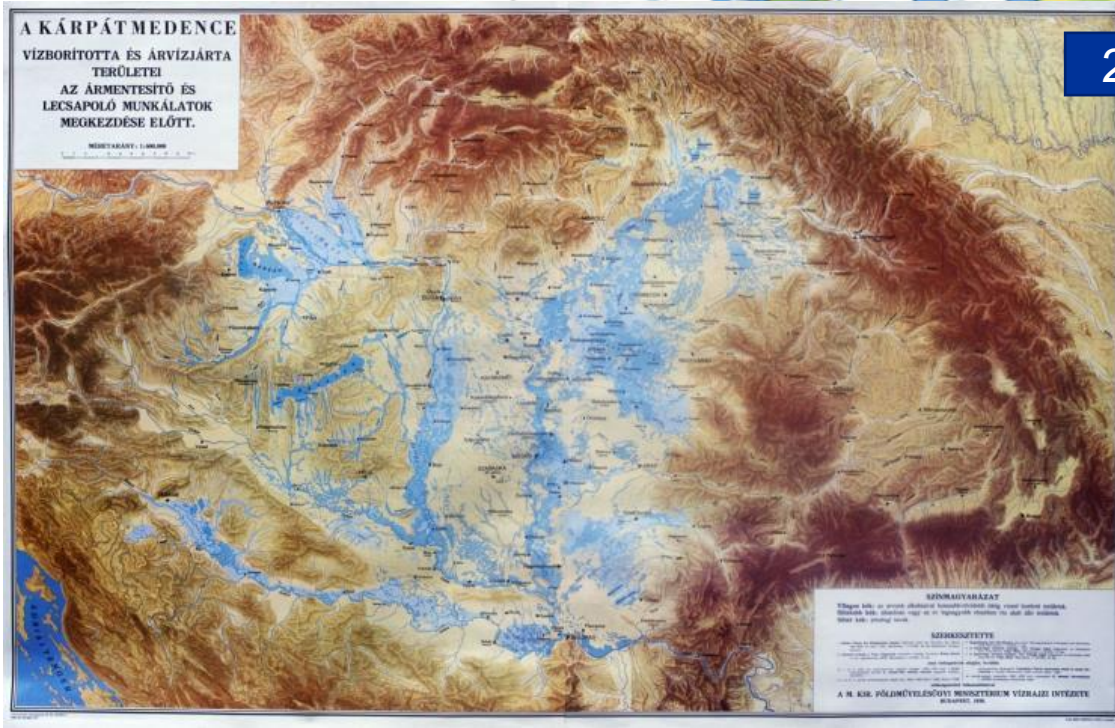
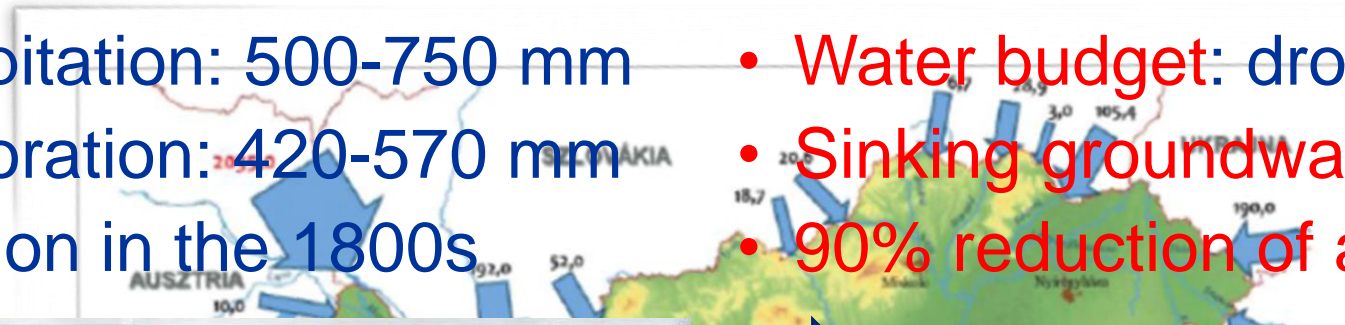
Adapting to Climate change in relation to WATER –
28th November 2023, Budapest

Petra Szatzker, project manager



Basic issues

- Annual precipitation: 500-750 mm
- Annual evaporation: 420-570 mm
- River regulation in the 1800s
- **Water budget: droughts and floods**
- **Sinking groundwater table**
- **90% reduction of active floodplain**



200 ys



Effects of climate change

Flash flooding



Water shortage



Excess water inundation



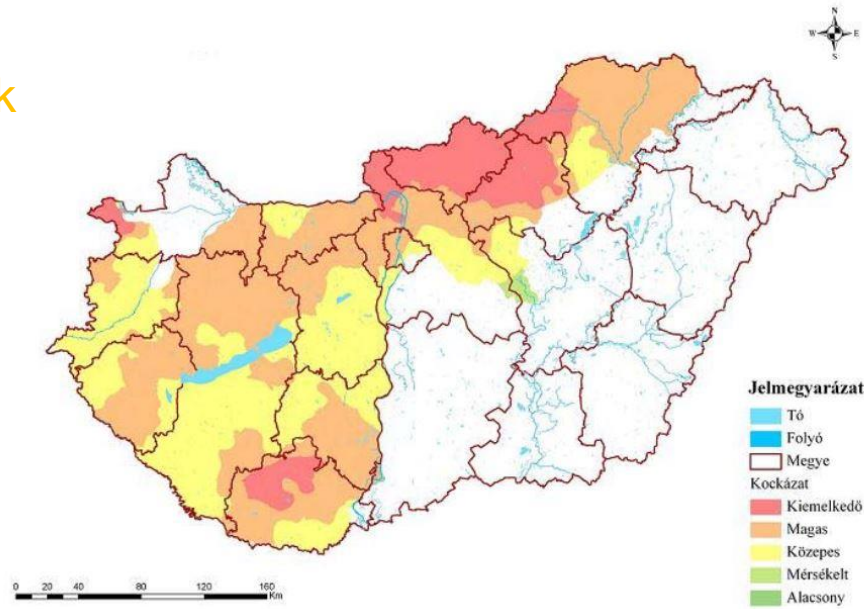
Droughts



Problems:

- Erosion and soil degradation
- Heat-waves
- Degradation of freshwater habitats

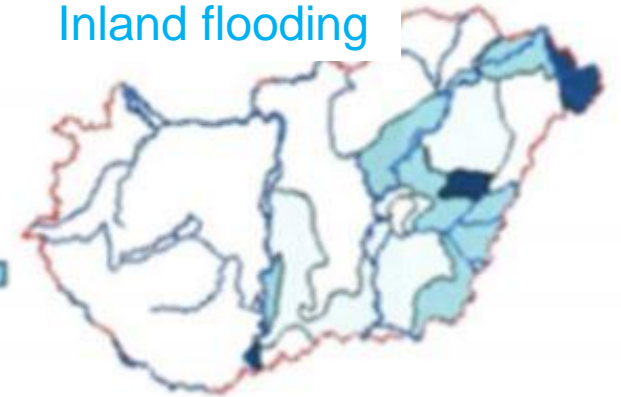
Flash flood risk areas



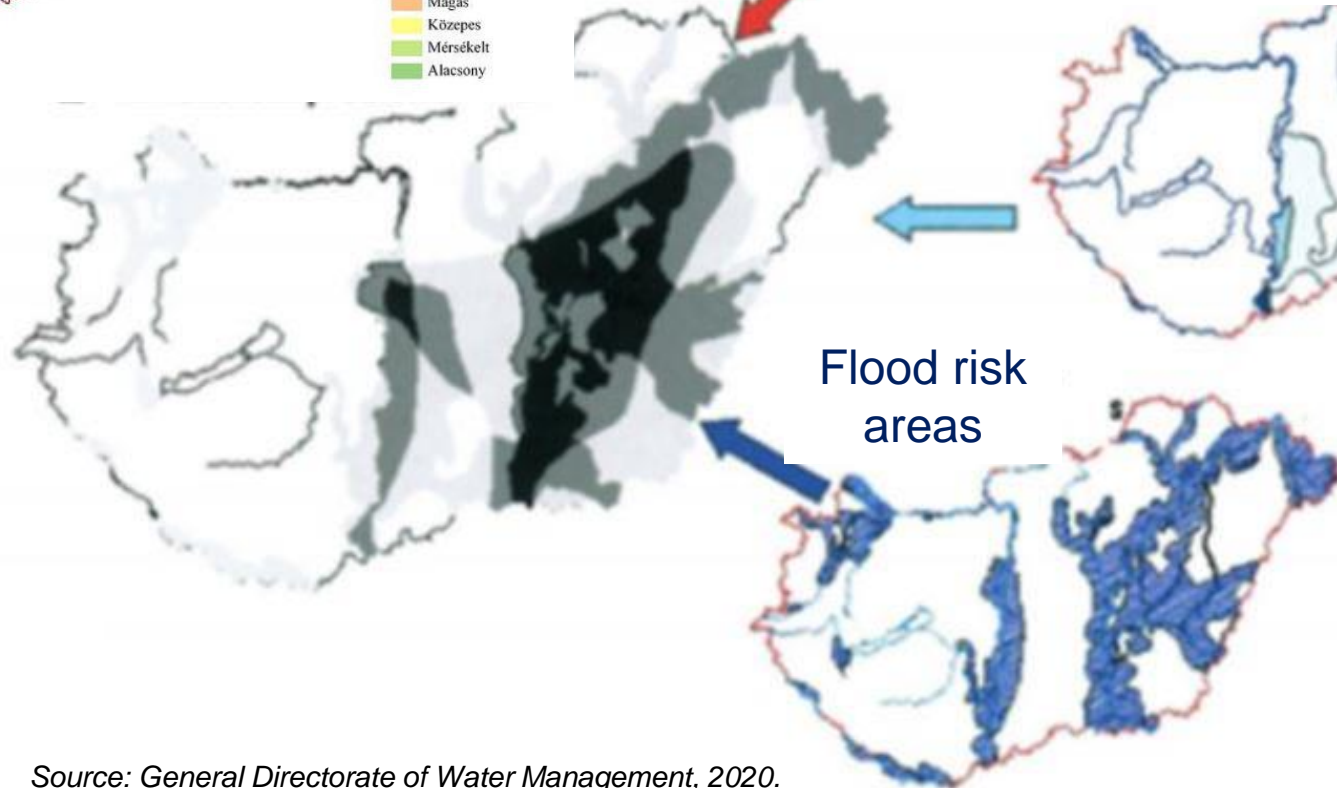
Drought areas



Inland flooding



Flood risk areas

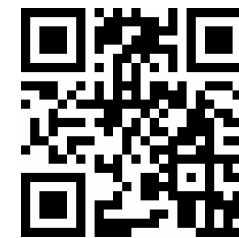
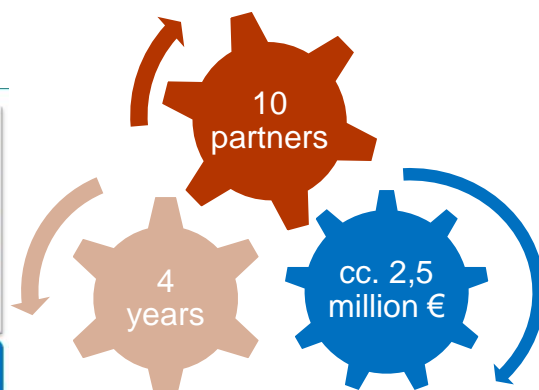


Water issues –
climatic related

LIFE-MICACC project



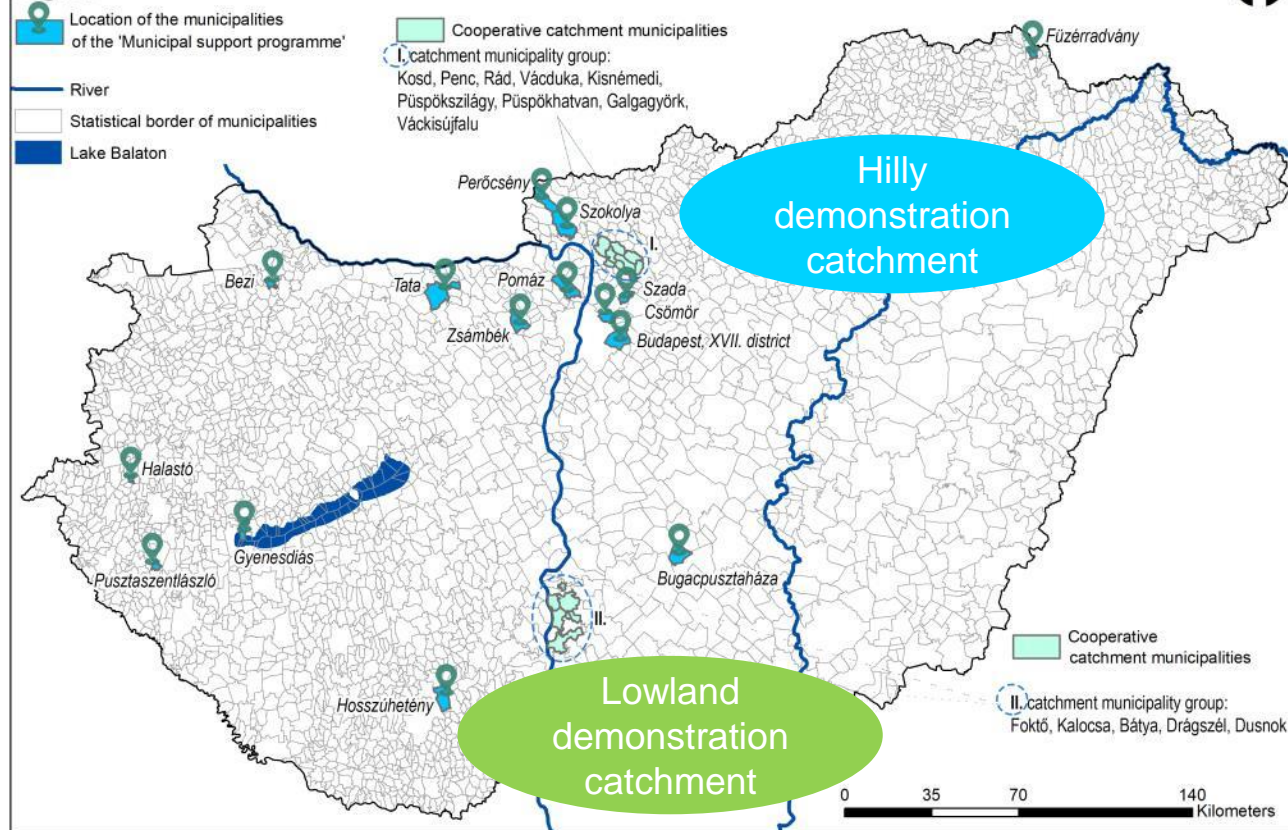
<https://lifelogos4waters.bm.hu>



<http://nwrn.bm.hu>

LIFE LOGOS 4 WATERS project locations 2 demonstration catchments

Legend



Why NWRMs?

(Natural Water Retention Measures)



Green spaces



Cost-effective



Close-to-nature



Protect settlements



“Little streams make great rivers!”



Attractive townscape



Why municipalities?



➤ Municipalities have first-hand experiences at the settlements



➤ Know the potential resources



➤ Know the local stakeholders



➤ Form local strategies and plans



Hilly demonstration catchment

Log-dams



Sedimentation



Mud reservoir



Slowing down, infiltration



9 settlements

25 NWRMs

Side reservoir



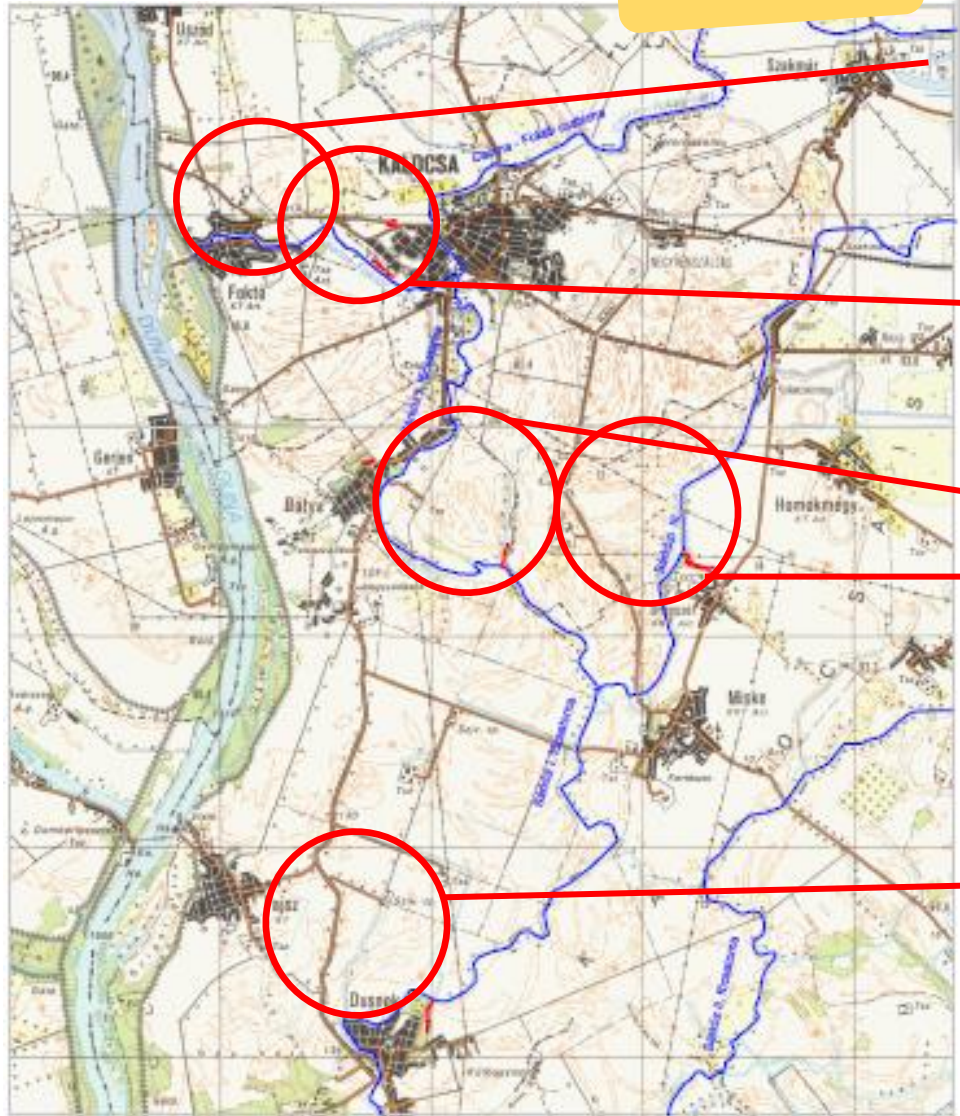
Landfill



- 💧 Slow down the flow
- 💧 Flood peak reduction
- 💧 Retain excess water
- 💧 Erosion reduction

5 settlements
5 NWRMs

Lowland demonstration catchment



Multi-basin wetland



Suburban water retention

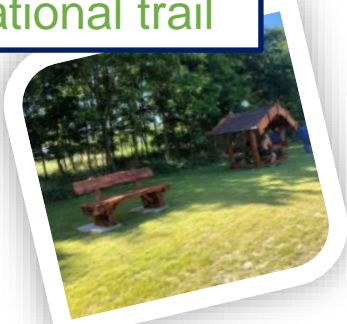
- dredging of the existing lake, a roof for visitors of the demonstration centre
- dredging of the existing lake
- fruit tree, increasing retention capacity of the pond
- „floodplain forest”, ditch
- establishing smaller pond, playground



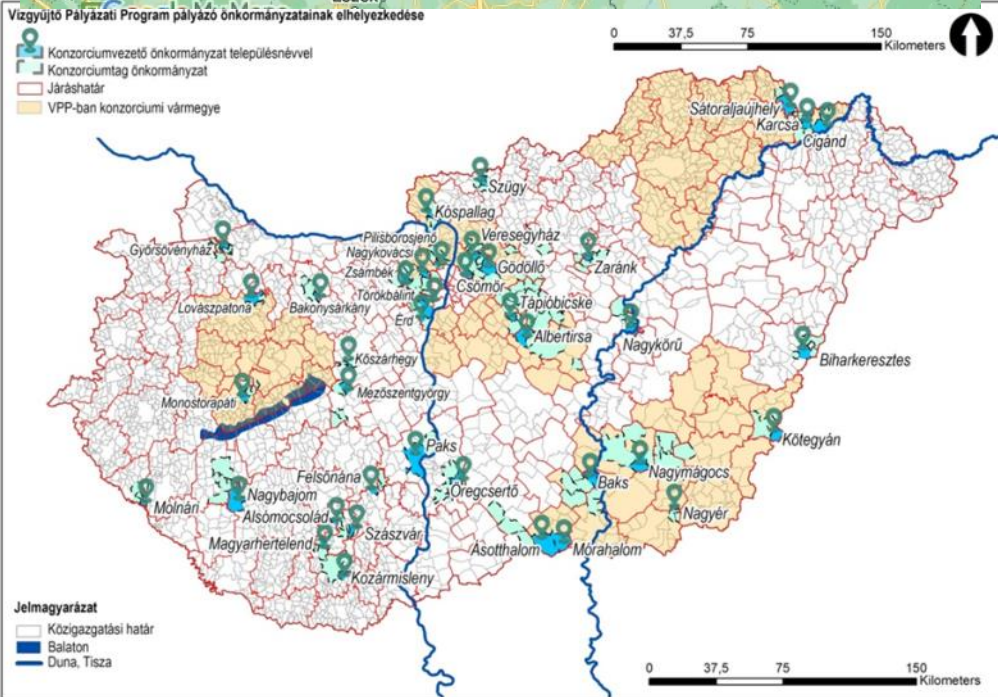
Dead-arm restoration



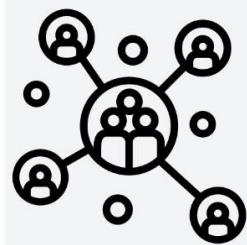
Educational trail



2 support programmes for municipalities – 286 participants



Involvement



Via 2 kind of institutions



number of participants in project events

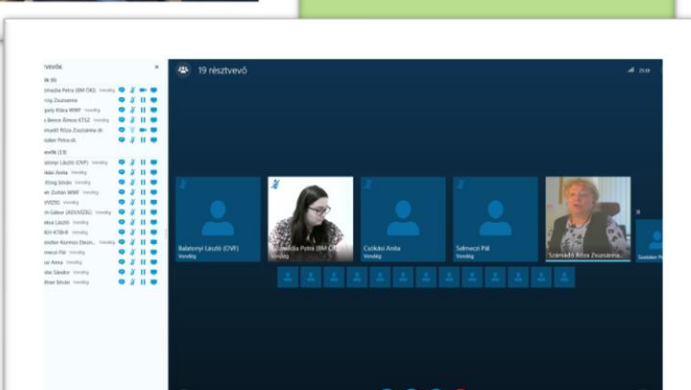


the number of municipalities participated in the support programs

Integrated Support Board



Multi-stakeholder Catchment Forums





What we expect ...

Changing attitude

Increasing knowledge

Adapting more effectively



Thank you for the attention!

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<https://lifelogos4waters.bm.hu/en/home/>

