



Ministry of Interior

Challenges in DRR in Hungary

Péter Kovács

Water Director

High Level Political Forum 2020

Virtual Side Event

Water-related Disaster Risk Reduction (DRR) under the COVID-19 Pandemic

Integrating Actions towards Full Achievement of SDGs



The quantity of waters are changeable: sometimes the too much water, sometimes lack of waters can cause damages at the same sites



What is the role of water management?

- Timely and sufficient availability of water is needed for the provision of safe water, sanitation and hygiene
- Water is needed to tackle other possible impacts of COVID-19 (e.g. poverty, economic downturn, food & energy insecurity)

⇒ Water is essential for recovery and prevention

- 60% of global freshwater flow comes from transboundary basins

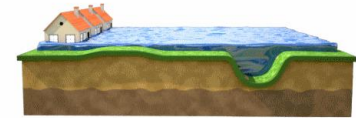
International cooperation on water management

- **Danube River Protection Convention** (29 June 1994, Sofia (Bulgaria))
International Commission for The Protection of the Danube River (ICPDR)
- The **UNECE Water Convention** is a **unique global legal framework** (since 2016) and an **intergovernmental platform** for peaceful management of transboundary waters, to prevent disputes and also serves as a **practical instrument** for day-to-day cooperation in transboundary basins.
- **Due to COVID-19 pandemic**, provision of **safe and sufficient water and adequate sanitation and hygiene to all** is **key to protect human health and save lives**. The Convention's **Protocol on Water and Health**, jointly serviced by UNECE and WHO-Europe, **could be used during the recovery phase and beyond to prepare for and prevent possible future spread of this and other infectious diseases**, while ensuring that vulnerable groups are not left behind.

**BEFORE
2000**

Providing flood safety

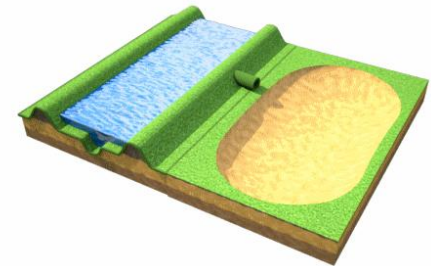
Building of flood protection dykes



**FROM
2000**

**Adaptation to water damage
caused by climate change**

Building flood-peak reducing
reservoirs, Flood control
reservoirs in Tisza valley (VTT)



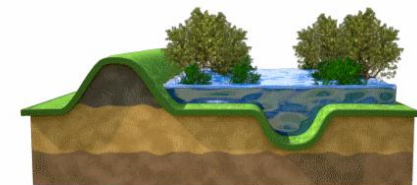
2015

***Recount of Design Flood level
-flood safety deteriorated***

**FROM
2016**

**The deterioration of flood
safety must be stopped**

**Floodplain management
plans**

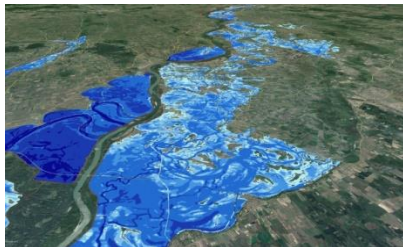
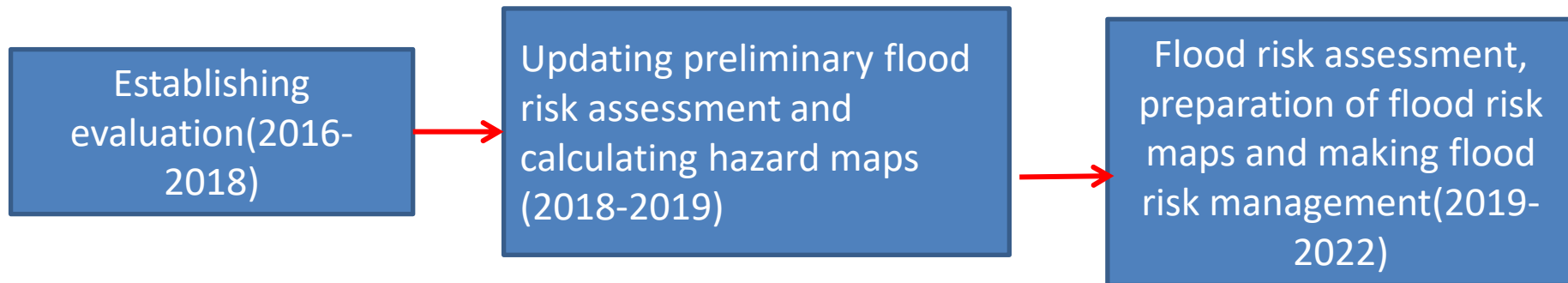


**FROM
2020**

Improving of flood safety
**Strategy of differentiated
flood safety**



Review of 1st Flood Risk and Hazard Maps



Review in every 6 years!!



18. ábra: Védekezés 2006-ban a Körös-területnél (forrás: OMAT)

AGENDA/ MAIN DEADLINES	2016	2017	2018	2019	2020	2021
Revision of the preliminary flood risk assessments						
Revision of the flood hazard and risk maps						
Revision of the flood risk managing plans						

Drought monitoring system

Detection:

- 79 monitoring stations (2019)
- GPRS remote system
- Database (OVF)
- Web service / queries

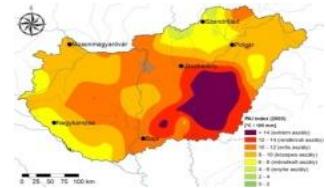
Evaluation:

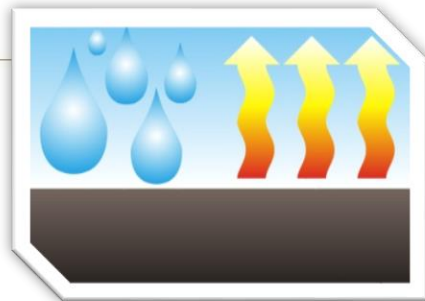
- Hungarian Drought Index (HDI)
- Measured soil moisture
- Evaluation of water shortage (based on measured data)

Intervention practices:

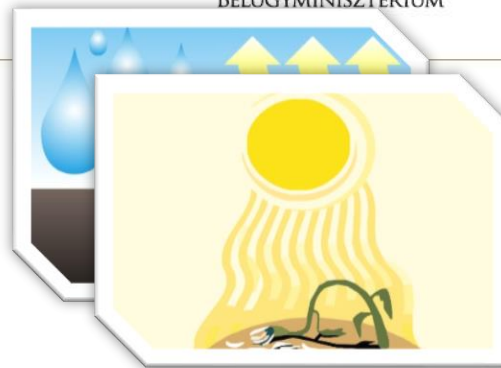
- Create the possibility of government assistance
- Alarm System (I., II., III. levels)
- Preventive water management practices
- Water Control/Water restriction, support of irrigation

Research and Development (analyses)

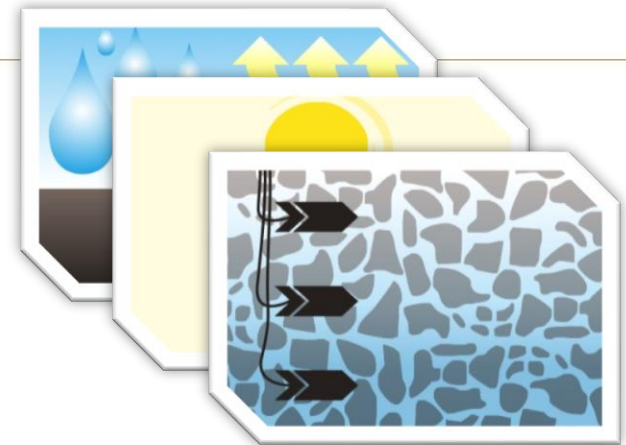




HDI₀



HDI_s



HDI

- Water balance
- daily data
 - ✓ precipitation
 - ✓ Temperature
 - ✓ long-term averages

Estimating condition of current water balance.

- Stress (PET)
- daily data
 - ✓ precipitation
 - ✓ temperature

Considering the negative effects of heat waves.

- Soil moisture
- daily data
 - ✓ Water content
 - ✓ Physical cond.

combined index
Accounting soil conditions



BELÜGYMINISZTERIUM



Thank You very much for your kind attention!



EU Strategy for the Danube Region Environmental Risks Priority Area

Environmental Risks Priority Area (PA5)



EU Strategy for the Danube Region Action Plan, PA5 Action 3:

Strengthen disaster prevention and preparedness among governmental and non-governmental organizations

- 3.1 Support **joint preparedness activities** of disaster response actors (professionals and volunteers at operational, tactical and strategic level)
- 3.2. **Harmonized training and capacity building** of civil protection units (based on UCPM) to improve coordination, interoperability, procedures and self-sufficiency
- 3.3. Support **disaster risk reduction** at regional and local level, raising public awareness
- 3.4. **Innovation and technology** to support disaster response (VR, drone, IT solutions, mapping)



Preparedness for climate change related risks in Western Balkan region (PREP-R)



- Introduce sustainable learning methods: e-learning, training of trainers
- Prepare firefighters for response in flood prone countries (SRB, BiH)
- Update Standard Operating Procedures due to COVID-19



#6 e-learning modules

- Floods
- **Medical support**
- Wildfires
- Engine management
- Trainer training
- International disaster response

EXERCISE



Danube Region Exercise

Flooding scenario in Upper-Tisa Region

Participants (SK, RO, HU):

- Water rescuer
- Civil protection
- Water management
- Firefighters
- Emergency Medical Teams



[Video](#)





Disaster Management Working Group



Regional network of disaster management actors

- EU Civil Protection Mechanism (EU-level initiative)
- Sendai Framework



Objectives:

- Support **cooperation**
- **Share** knowledge
- **Harmonize** training
- **Prepare** for joint **response**



CONTACT



Thank you for your attention!



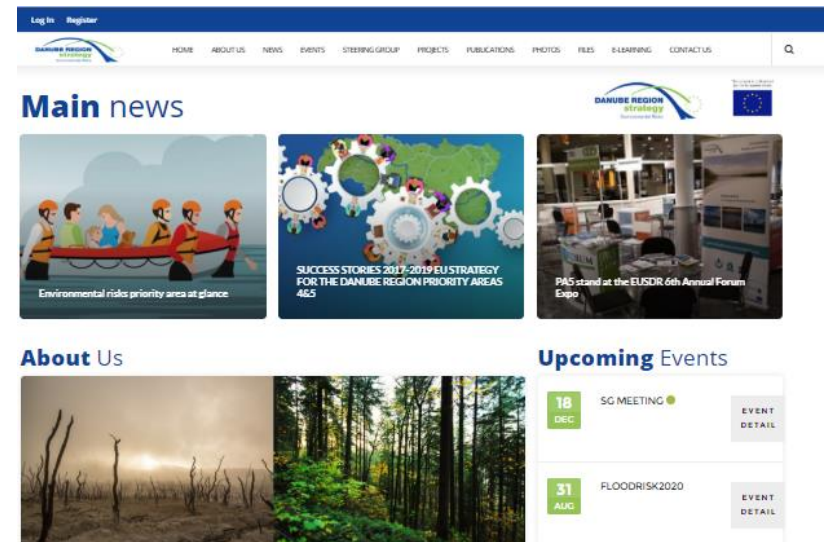
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<https://environmentalrisks.danube-region.eu/>

