

NEWS from scientific life of project teams

Nature-based solutions in landscape resolve floods and drought at the same time IEEP

Municipalities in the Czech Republic have recently felt perceptibly both drought and floods following torrential rains. These extremes are the consequences of historic changes in landscape and go hand in hand with changing precipitation due to climate change. If we want to mitigate the negative impacts of drought and floods, we need to revise, among many other things, historic approaches and return to water some of the space that we have taken away from it. Frequently promoted technical flood protection solutions (new dam reservoirs) do not guarantee 100% protection. We have long been pointing out that authorities cannot concentrate purely on such monumental structures and overestimate their effects but should combine them with other landscape solutions.

Drought and floods are a consequence of landscape changes

The IEEP has long pursued a scientific perspective of these nature-based solutions and support to their practical implementation. They are small-scale landscape measures: pools, wetlands, dry polders, baulks, retention ditches, swales, groves, grassing, etc. Their primary purpose is to prevent rainwater from running off fast and to slow down its runoff or allow it to soak into the ground or evaporate. These solutions also bring a significant reduction in soil erosion in landscape, they promote biodiversity and may also be used as places for leisure. They have many more positive effects besides reducing negative consequences of drought and floods.

Nature-based solutions have benefits beyond drought and floods

Economic and institutional aspects of nature-based solutions are analysed in several scientific projects, e.g., in the Czech-German project STRIMA II and the multidisciplinary TAČR project Water in the City. In a GAČR project, we pointed out current institutional barriers in implementation of such solutions. Our research has shown that landowners often come across bureaucratic obstacles in their construction as well as numerous unjustified fees, which often contradict existing policies and drought mitigation subsidy schemes.

Legislative and bureaucratic requirements often contradict national policies

Lenka Slavíková and Marek Hekrle



Transboundary cooperation in the Beskydy forests



IN A NUTSHELL



For two years now, IREAS has been implementing the BESKYDY project along with Czech and Slovak partners (Renewal of biodiversity and ecosystem services renewal in the Beskydy forests endangered by climate change). The project objective is protection of biodiversity of the transboundary territory by means of cooperation in

the area of protection and coordinated management of important natural areas. The project is funded from INTERREG V-A SK-CZ. We examined how the local actors perceive risks associated with climate change and, based on their responses as well, we are finalizing a climate change adaptation plan for the Beskydy forests. Additional project outcomes are a web map application and a pilot forest transformation project. We believe we will be able to organize a transboundary seminar in September which will present these main project outcomes in the region itself. For more on the project, its outcomes and current information about the planned seminar, see the website www.ireas.cz/en/projects/52/.

Martin Špaček

NEW WEBSITE

IREAS has a new website. You can visit it at www.ireas.cz.

MEDIA SUCCESS

L. Slavíková has been approached by the BBC and then the Czech Radio. She was interviewed as an expert on water retention in landscape and nature-based solutions.

NEW ARTICLES

J. Macháč, M. Hekrlé and J. Brabec presented their article at the conference Smart Cities Symposium 2020. The article name is *Cultural ecosystem services and public preferences: How to integrate them effectively into Smart City planning?*

The paper *Approaches to state flood recovery funding in Visegrad Group Countries* was published by L. Slavíková as the main author.

The paper *Externalities in agriculture: How to include their monetary value in decision-making?* was published by J. Macháč as the main author.

Policy brief for key stakeholders



Platforma
pro zelenou
a modrou
infrastrukturu

Green and blue infrastructure is becoming a keyword for changes in municipal areas as well as in landscape. However, using its potential to the full in its implementation requires cooperation across stakeholders. We set up the Platform for Green and Blue Infrastructure for this purpose.

The Platform builds on topic-specified multidisciplinary meetings of researchers, business, municipal, state and non-profit sector representatives in the Czech Republic. The policy briefs or open letters for the stakeholders are published as the main outcomes from discussed topics. Their purpose is to provide practical recommendations, increase awareness of the topics across society and react on current frequently discussed issues.

Historically the first Policy brief for key stakeholders, named *Planting trees in cities and landscape – the planting is not enough*, was published in June 2020, focusing on greenery planting in urban environments and landscape. It points out key barriers and starting points to bring them down, as well as the need to plant trees meaningfully, popularise their benefits and ensure follow-up management and the importance of combining trees with other green, blue and grey infrastructure.

Jan Macháč and Marek Hekrlé

WASTE INTERNATIONALLY

J. Slavík has become a member of the international scientific organisation International Waste Working Group (IWWG), associating scientists dealing with waste management.

CALENDAR OF EVENTS

Conference "Green roofs – the vision of the future" as part of the Landscape Festival

Praha 2020

10 Sep 2020

J. Macháč will present **results of green roof assessment from the economic point of view**. Winners of the Green Roof of the Year competition will be announced at the conference as well. Until August 31, you can vote in the Public Award category. For more on the competition and the conference, see www.zelenastrecharoku.cz/cs/

Second annual Czech Envi Thesis student competition to be held

1 Jun – 3 Dec 2020

On the first of June, we launched the second annual competition **Czech Envi Thesis for the best bachelor or diploma thesis** in the area of environmental studies. Students can register their theses until September 30, and the final will take place in Ústí nad Labem on December 3. For more on the competition and registration, see www.czechenvithesis.cz

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