



Webinar: Water Management for Climate Resilient Balkan Cities  
June 29, 2020  
*Executive summary*

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**PARTNERS  
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## Introduction

Over the past years, the Balkan region has been experiencing the effects of climate change, facing frequent flooding and droughts. How can we make the region more resilient to handle the excess of water? How can we manage situations with too little water during long periods?

On June 29, Netherlands Water Partnership (NWP) organized the webinar “Water management for climate resilient Balkan cities” where these topics were addressed.

This webinar, supported by the Partners for Water programme, was a follow-up of the Balkan Business Dialogue organised by the Netherlands Enterprise Agency (RVO) and the regional Dutch Embassies in Western Balkans, in March 2020.

The first part of the webinar consisted of presentations by water experts and urban planners from leading Dutch and regional organisations. The webinar also addressed experiences in the region, possible approaches to deal with water challenges, and opportunities to make cities in the Balkan region more climate-resilient. The webinar ended with an engaging open discussion session.

## Programme of the webinar on June 29

14:00 Opening by NWP

Introduction - Meeting Goals – NWP role in the Balkans - Urban Resilience

### 14:08 Interaction

14:10 Blue & Green Corridors for Sustainable Solutions, Mitja Bricelj, Ministry of the Environment and Spatial Planning, Slovenia

14:17 Urban Nature Based Solutions as part of the EU Floods Directive, Job Udo, HKV

14:24 KWR and Balkan Urban Resilience: How to Bridge Science to Practice, Jan Vreeburg, KWR

14:34 Moving towards (urban) resilience in Balkans, Annegien Tijssen, Deltares

### 14:42 2-min break

14:44 Adapting to climate extremes by planning and design with water, Milena Ivkovic, ISOCARP

14:51 The Power of Public Space, Martin Sobota, CITYFÖRSTER

14:58 World Bank on Urban Resilience in the Western Balkans, Darko Milutin, WB Urban and Disaster Risk Management Europe and Central Asia, Country Office, Serbia

### 15:05 Discussion and Q&A

15:25 Concluding remarks by NWP

## Executive summary of the presentations

- Opening by NWP

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Netherlands Water Partnership (NWP) is the largest network of Dutch organisations in the water sector. It is the first point of call for anyone seeking Dutch water expertise. NWP gathers knowledge when there is too much, too little or too polluted water. Through Partners for Water programme of RVO.nl, and with the support of regional Embassies of the Netherlands abroad, NWP organizes activities in the Western Balkans countries. This webinar is the first online event in the series of three planned for this year. Next to regional approaches, Partners for Water programme includes thematic approaches, such as Urban Resilience, also executed by NWP. In the last years, the Balkan region is witnessing the impact of climate change in the form of temperature and rain pattern changes, extreme weather events including flooding and heat waves. These events pose a challenge in the management of water and cities are facing the need to increase their resilience strategies to be able to face them. NWP gathers a group of organizations specialized on urban resilience that work with partners locally to share knowledge, analyze challenges together, and implement solutions specific to the needs of the region.

- Blue & Green Corridors for Sustainable Solutions

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The Adriatic-Ionian region, home to the Sava river basin, has been appointed as the environmental pillar in the Adriatic Strategy. Blue and green corridors should be respected when moving forward within a sustainable strategy. Planning at the transboundary level should integrate green infrastructure to address challenges such as floods, droughts, and biodiversity loss, which are imposed in this region by climate change and other pressures. The blue & green corridor-integrated approach is being introduced in the Sava River Basin Multilateral Commission. Features of this approach include: protection of biodiversity of the Sava river basin floodplains along with a flood forecasting system, including the Mura-Drava river system as part of the European Green Belt. In the real of a transboundary integrated approach, allowing more space for water including green infrastructure around coastal areas. Additionally, the work of this commission includes a World Bank project on the Drina corridor. Moving forward, river connectivity should be central in the planning of new solutions, urban planning should be part of river basin management and transboundary cooperation both up- and downstream should be maintained.

- Water management for climate resilient Balkan cities  
Urban Nature Based Solutions as part the EU Floods Directive

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HKV is specialized in water and safety. The firm is very active in Balkan countries, with collaborations in Albania, Bosnia and Herzegovina, North Macedonia, Bulgaria, Romania and the regional Brigaid.eu project (<https://climateinnovationwindow.eu>). HKV is developing



flood early warning systems (currently in Bosnia and Herzegovina) and also works on projects related to implementation of the EU Floods Directive.

The challenge is that in the Balkans there are a lot of urban stresses related to weather and climate. In order to mitigate these, it is possible to implement Urban Nature Based Solution (NBS) and in some cases Urban Green Infrastructure. In order to realize implementation from a long list of NBS options available, sufficient funds and long-term support by decision makers is needed, as well as inclusive cost-benefit assessment of NBS implementation. Within the Floods Directive the impact models have also been developed that can be used to assess the effects of NBS. The EU Floods Directive requires joint coordinated measures - Measure code M34, for example, addresses possible measures for using green infrastructure in urban settings. In order to realize implementation of NBS in urban areas would be very good to link the tools that are in place in the Floods Directive with NBS to effectively reduce the negative impact of stresses in the urban regions.

- **KWR and Balkan Urban Resilience: How to Bridge Science to Practice**

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KWR is bridging science to practice in water-energy-food nexus and has strong connections with (inter)national universities and research networks. More info at: <https://www.kwrwater.nl/en/tools-products>. An example of the work of KWR includes the City Blueprint approach, which has been applied in the Balkans. Methodology includes a baseline assessment that can be used for development of strategies and action plans by local stakeholders. The City Blueprint approach uses 24 indicators to assess the situation from public available data. Two examples were presented: the City Blueprint of Belgrade and of Ljubljana. In Belgrade, positive aspects include access to clean and safe drinking water and sanitation services, while key learning opportunities include improvements in wastewater treatment, non-revenue water, urban planning and climate adaptation. In Ljubljana, a baseline assessment reveals that there is very good climate adaptation planning present, while key learning opportunities are again in the domain of wastewater treatment, non-revenue water and water infrastructure. Another example of KWR's approach bridging science to practice to help cities become resilient, is the urban water buffer project which addresses water storage and recovery/re-use in cities. In this project, there is subsurface storage of rain water in urban areas, which is later recovered and used in times when there is a lack of rain. In the city of Rotterdam, beneath a recreational football field (a so-called Crujff Court), rainwater is stored underground and water is used for irrigation of the stadium football field. An approach fit for the future: co-creation of applied knowledge with local actors and translation into added value for the community, including the social return of community bonding over an urban recreation field. It is a "Dutch shopping window" as reference combined with international recognition.

- **Moving towards (urban) resilience in the Balkans**

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Deltares is an independent research institute, *the* knowledge partner of the Dutch Government for water-related topics. With more than 800 employees, Deltares has quite some experience in the Balkans on water resource management, water quality and flood forecasting and early warning – an example: transboundary flood forecasting and early warning system for Sava river basin. Disaster risk management framework starts with risk

identification which underpins the other pillars: risk reduction, preparedness, financial protection and resilient reconstruction (build back better). Resilient society – reducing existing risk, avoiding creating new risk and even if a disaster happens, how to be better prepared, and respond more efficiently to disasters.

The Deltares Adaptation Support Tool (AST) for climate resilient city planning ([www.crctool.org](http://www.crctool.org)) - a tool designed to combine and prioritize adaptation measures to improve the climate resilience of risk prone areas in a city, in a collaborative way together with all relevant stakeholders who will provide the essential local context to ensure a solution fit for the local situation. The tool has been applied around the world in collaborative stakeholder workshops. AST can be used to reduce existing risk or avoid creating new risk. However, risk will never be zero. Therefore, urban resilience also means being prepared for the next disaster. Forecast-based Emergency Management allows for improved coping strategies in the preparedness and response phase of a disaster. This can be done through e.g. decision support systems and/or risk-informed response plans that enable communities and businesses to return to an acceptable level of functioning after a disaster as soon as possible. It can also provide tools and information to decision makers to efficiently and effectively limit the impact of a disaster (saving lives, limiting damages and economic losses, or by providing information on accessibility of hospitals and other points of interest).

- Adapting to climate extremes by planning and design with water

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When looking at resilience, ISOCARP is looking at water and also at the rest of the city systems and taking an integral approach to advise across the cities or municipalities. When talking about the resilience to climate extremes, according to the World Economic Forum, there are three important directions urban planning should consider. First, the ability to adapt to changes; second, anticipating what might happen next; and lastly, absorbing shocks when they do come along. ISOCARP collaborates with [planners4climate.org](http://planners4climate.org) and finds this relationship relevant for water management issues. Within the ThinkNature EU H2020 project, ISOCARP is working towards developing a Nature Based Solutions handbook. When looking at the Western Balkans, extreme droughts and floods are happening around the same areas. We see urban heat islands put additional pressures on water supply while at the same time, extreme rainfall and floods are also damaging urban areas. Examples of this includes the flood of 2014. There is a lot of potential to work in urban management to better address these needs and a lot of efforts are taking place, but there is much to be done to work in integrated and holistic approaches.

- The Power of Public Space

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CITYFÖRSTER works on innovative, zero-emission, sustainable architecture. Besides individual buildings and structures, thought-processes on urban, large scale urban areas are also being applied at this organization. Some examples of this work include sponge city masterplans, green and blue infrastructure, urban restructuring of post-war neighbourhoods, and other urban scale projects. The organization has been involved in Albania for 15 years. The collaboration started by efforts by the Mayor of Tirana, an artist with appreciation for

infrastructure and design as a political tool. An example of CITYFÖRSTER's work includes the Cape Square project, which functions as both a public space and coastal protection infrastructure. After being asked to design the square behind it, CITYFÖRSTER identified the promenade as a key area to enliven the public space. The organization keeps on working towards realizing more projects within the Urban Renaissance Program, these include projects such as The Sphinx, Boulevard Vlora, the Dhermi Promenade and Central Park Elbasan. The Urban Renaissance Program was a government initiative with the purpose to liven up the city through public spaces and urban design. Some challenges that are still seen include the lack of basic infrastructure, especially in rural areas, a traditional approach to water management (creating larger gutters) and the lack of governance foresight. Opportunities show themselves in small scale - like exclusive tourism, as well as ecosystem regeneration which links to water indirectly. Moving forward it is advised to make use of multiple programming of public spaces, combining engineering with beautification and increased use of nature based solutions.

- The World Bank on urban resilience in the Western Balkans

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Disaster risk management entered the World Bank (WB) focus in the Balkan region after the floods of 2014. This has resulted in building up a solid, internationally recognized institutional and legal framework in Serbia, working at both the national and local levels in the area of disaster risk management (DRM). Further activities in Serbia have included flood hazard and risk assessments in line with the EU Floods Directive. The regional Urban Partnership Program, financed by an Austrian trust fund and managed by the World Bank, is a program focusing on strengthening the capacity of local self governments (LSGs), to effectively manage urban development for inclusive and sustainable growth. Next to this, there is also a Regional Western Balkans disaster risk management program, which supports the participating countries in collecting and managing climate risk information and assisting them to identify investments to build up resilient practices, improve their post disaster risk response and development capacities. The ongoing Second Municipal Services Improvement Project in North Macedonia aims to improve transparency, financial sustainability and inclusive delivery of targeted municipal services in the participating municipalities. In Albania, the Integrated Urban and Tourism Development Project supports the country to improve urban infrastructure, enhance tourism assets, and strengthen institutional capacity to support tourism-related local economic development in selected areas in the south of Albania. Lastly, in addition to the forthcoming Sava and Drina Rivers Corridors Integrated Development Program, one of the important activities within the WB water global practice is the Danube Water Program, which recently extended its scope to include the topic of Water Security. Water Security Diagnostics have been developed taking into consideration all important aspects of water security. This is an integrated approach taking into account climate change, economic development, demographic changes, technologies and practices, working on improving the social, environmental and economic outcomes. More information on specific country programs can be received from the respective WB country offices in the Western Balkans.



## Additional links

- Interested to receive water related **news from the Balkans** few times per year? Subscribe to Partners for Water Balkans Country Update [here](#)
- RVO.nl, together with Netherlands Embassies in Albania, Bosnia and Herzegovina, North Macedonia and Serbia; initiated a study to explore **business opportunities** for Dutch organisations in the area of wastewater and flood management in the Western Balkan region. You can download the **study** [here](#)