

Preventing Disasters: Flood Risk Management in Bosnia and Herzegovina

640,000 citizens from Bosnia and Herzegovina are much safer due to the prevention systems and facilities provided through the technical and financial support of WBIF.

Bosnia and Herzegovina suffered the worst floods in Europe's recent history in 2010 and 2014. The most recent one was declared as the heaviest rain in the recorded history of Southeast Europe. This sad record, together with inadequate flood protection warning and prevention systems and facilities, led to catastrophic consequences. More than 100,000 people were affected causing [a total economic damage close to €1 billion](#)

‘It was horrible. People lost their houses, crops, livestock,’ remembers **Sasa Miric**, who still lives close to Bijeljina, a city in the Republika Srpska. ‘My parents' home was completely flooded,’ he continues. ‘The water inside our house was almost a meter high.’ Although fight against floods will remain an endless battle, ‘we can say that our citizens are much safer today than before this project’ confirmed **Milan Kikic**, a former Director of Vode Srpske.

The Sava River valley together with areas along lower parts of its tributaries - Drina, Una, Ukrina, Bosna and Vrbas are all prone to flooding due to multiple reasons: high urbanisation, inadequate settlements, sealing of soil with paving, construction on river sides, and climate change.

In order to prevent further damage from floods, the European Union, the European Investment Bank and other relevant donors have provided technical and financial support since 2010 to improve flood protection in BiH. **The WBIF is providing assistance to these needs through four technical assistance grants for the preparation of several measures including flood risk maps, feasibility studies, detailed designs and tender documentation.**

These measures and investments will improve the performance and reliability of the flood protection system in BiH, after the rehabilitation of more than 160 km of water channels and more than 100 km of new dykes. **The project will thus have a strong positive impact on the economy, society, environment and on public health.** Moreover, it will contribute to the quality of life of more than 640,000 inhabitants like Ostoja, a local farmer from Bijeljina, who has seen his production expand due to the improvement of the security conditions in the affected areas.



Project beneficiaries (c) EU.

Project Description

The project [Bosnia and Herzegovina Flood Risk Management](#) implemented under the framework of WBIF, has supported the local authorities' efforts to prepare and implement urgent as well as medium- to long-term flood protection measures and facilities. Such investments have been dedicated to:

- **Rehabilitation of river dykes, channels, riverbanks, small bridges;**
- **Replacement and upgrade of pumping stations;**
- **Preventive measures including erosion protection and flood risk mapping.**

The WBIF provided financial support to the construction of the infrastructure facilities and the technical assistance that included feasibility studies, detail designs, tender documents, assistance with tendering and project management, as well as the preparation of flood hazard and flood risk maps for the entire Bosnia and Herzegovina.

The project preparation support started in 2011 and over these years, the **WBIF allocated €7.3 million in technical assistance grants** and **European Investment Bank loans of €55 million**. Additional funding of €16.2 million were received through other financial sources as the International Bank for Reconstruction and

Development (IBRD) / International Development Association (IDA), Global Environment Finance (GEF) / United Nations Development Programme (UNDP), the Instrument for Pre-Accession Assistance (IPA) 2014 (Serbia & BiH). Bosnia and Herzegovina contributed with €4.4 million.

These investments contributed to the achievement of the overall goals of the project: reducing the risk of floods while increasing the capacity of the national institutions and stakeholders for the management and implementation of multidisciplinary projects, transferring know-how in project development and financing strategies to local beneficiaries. **More than 640,000 inhabitants have experienced the positive economic, social and environmental impacts in the region.**



Lars-Gunnar Wigemark
Former EU Ambassador and Special
Representative to Bosnia and Herzegovina

'EU is committed to strengthening the economies of the Western Balkans. Through the WBIF, we have partnered and are working closely together with major financial institutions, our own member states as well as regional governments to improve the infrastructure across the region.'



Dubravka Nègre
EIB Regional Director

'After the floods in 2010, we signed a 55 million loan for the project in RS to rehabilitate flood protection infrastructure, since the previous one dated back to the period before the WWII. Our aim is to prevent future damages to houses, people, industries and farms.'



Ondrej Dusek
EIB Task Manager

'We were lucky to have a great team, very competent and hard working PIU, established by the Ministry of Agriculture and the Public company Vode Srpske. This team was supported by a competent TA team and internationally tendered FIDIC engineers, the supervisor of works.'



Nebojsa Budovic
Project Manager, WBIF TA

'We have visited more than 150 locations, damaged by floods, where there was a need for flood protection measures. We have classified the necessary measures according to their priorities and soon after that, we conducted studies, detail designs and tender documents for works, which started in 2013.'

Stakeholders of the WBIF funded project (c) EU.

Building the European Future Together

WBIF was jointly launched in 2009 by the **European Commission** (DG ELARG now DG NEAR), **International Financial Institutions** and **Bilateral Donors** to enhance harmonisation and cooperation in

investments for the socio-economic development of the Western Balkans. Together with the **Western Balkan beneficiaries**, WBIF forms a unique partnership, defining priorities and support packages needed for strategic investments and institutional reform. WBIF contributes to the European perspective of the Western Balkans by supporting not only investment projects improving competitiveness and growth, but also by reinforcing regional cooperation and connectivity. Eligible sectors include digital infrastructure, energy, environment, social, transport, and private sector development through WBIF's dedicated initiative **EDIF** (Enterprise Development and Innovation Facility). This cooperation is only possible due to the close and coordinated interaction among the European Commission, International Financial Institutions and Bilateral Donors, together with the Western Balkan beneficiaries.

This year marks **WBIF's 10th anniversary**, and during the past decade **over €1 billion in grants** were allocated for preparation and implementation of infrastructure projects. Starting with 2015, around **€200 million in investment grants per annum** is allocated to the Western Balkan beneficiaries for the implementation of **Connectivity Agenda**. The EU grant channelled through the WBIF since inception, will support investment projects with an estimated total investment cost of **€18 billion**. The successful implementation of the EU grant have resulted in many tangible and intangible gains, including but not limited to: significantly **reduced travel times; increased transport safety; reduced emissions; improved quality of life and urban environment; better learning conditions; and increased competitiveness**, etc.

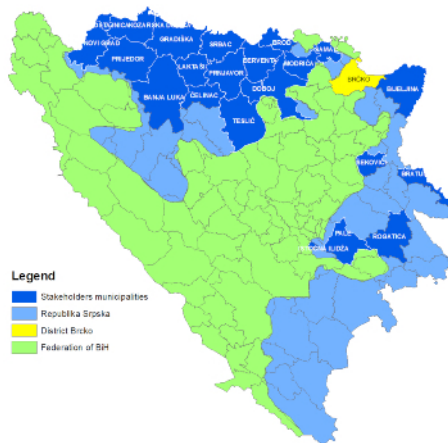
Some of the concrete benefits of the infrastructure projects supported by WBIF will entail:

- Construction or rehabilitation of **800 km of roads**;
- Refurbishment or construction of approximately **1,000 km of railway lines**;
- **40 MW of new electricity generation** from renewable energy resources (sufficient to supply the energy needs of a medium sized city);
- Access to **clean drinking water for around 1 million people**;
- Refurbishment and construction of **24 healthcare and over 80 educational facilities**.

Besides physical infrastructure, these investments will reduce existing barriers making the horizon of European accession visible and obtainable.



Reconstructed banks of Vrbanja River (c) EU.



Map of municipalities included in the project

The reasons behind the high flood risk are multiple: high urbanization, inadequate settlements, sealing of soil surfaces with paved areas, construction on river sides, and climate change.

Short video on Flood Risk Management(c) EU.

Project Title:

Bosnia and Herzegovina Flood Risk Management

WBIF Grants:

€7.3 m

EIB Loan:

€55 m

IBRD/IDA, GEF/UNDP, IPA 2014, IPA 2014:

€16.2 m

Beneficiary Contribution:

€4 m

Total Project Value:

€104.2 m

Key Impacts



**IMPROVED SAFETY FOR MORE
THAN 600,000 INHABITANTS**



**ALMOST 100 KM OF
REHABILITATED/NEW DYKES**



**MORE THAN 160 KM OF
REHABILITATED CHANNELS**



**MORE THAN 20 KM OF
REGULATED RIVERBED**