



# PREVENTION

In December 2014, the Government of Serbia adopted the National Disaster Risk Management Programme, which will be implemented in cooperation with the World Bank, the United Nations (UN) the European Union (EU) and Swiss SECO.

SO FAR EUR 100 MILLION HAS BEEN PROVIDED FOR THE IMPLEMENTATION OF THE PREVENTION PROGRAMME.

## NEW STRUCTURES: EMBANKMENTS

### SMEDEREVSKA PALANKA

EUR 1,48 million  
works completed,  
funded by World Bank

### SOMBOR and BAČKA PALANKA

EUR 1,6 million  
work in progress,  
funded by EU

### ŠABAC and BOGATIĆ

EUR 10 million  
work in progress,  
funded by EU

### VALJEVO

EUR 2,8 million  
tender documentation  
is currently being prepared,  
funded by World Bank

### VALJEVO

EUR 2,5 million  
work in progress,  
funded by EU

### LUČANI

EUR 2,6 million  
works completed,  
funded by Serbian Government

### NOVI PAZAR

EUR 1,8 million  
works completed,  
funded by World Bank

### RAŠKA

EUR 0,6 million  
works completed  
funded by Serbian Government

### SVILAJNAC

EUR 3 million  
work in progress,  
funded by EU

### VRŠAC

EUR 2,5 million  
work in progress,  
funded by World Bank

### ČAČAK

EUR 2,5 million  
tender documentation is  
currently being prepared  
funded by World Bank

### PARAĆIN

EUR 2,7 million  
work in progress,  
funded by EU

### NEGOTIN

EUR 1,13 million  
works completed  
funded by World Bank

### NIŠ

EUR 2,8 million  
works completed,  
funded by World Bank

### ALEKSINAC

Donji Ljubeš - EUR 2,3 million  
works completed,  
funded by World Bank

### ALEKSINAC

Moravica - EUR 1,4 million  
works completed,  
funded by World Bank

# THE PROJECT ALSO INCLUDES:

## EUR 4,18 million

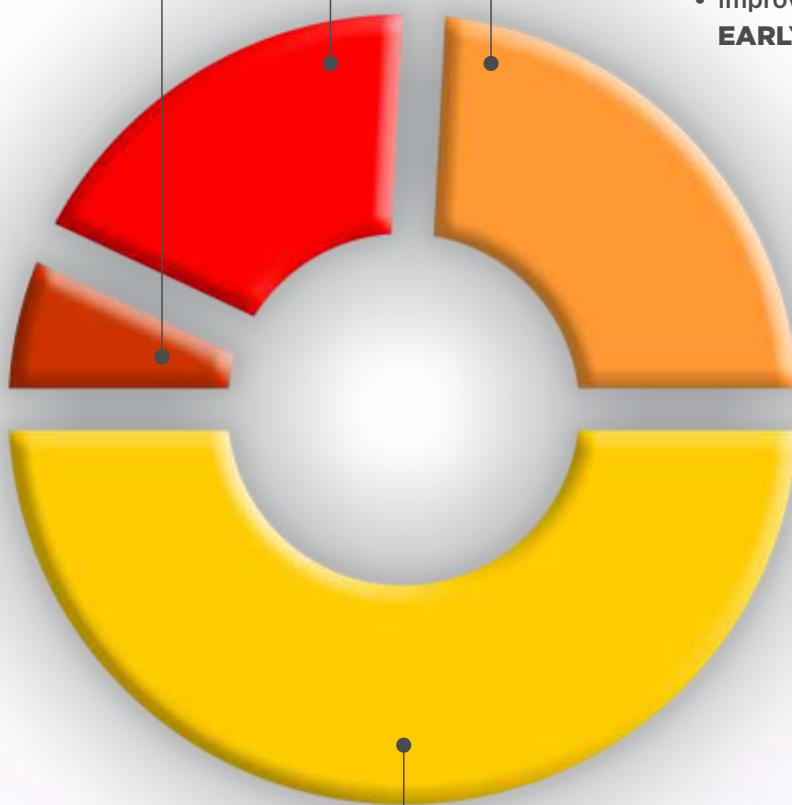
- Purchase of mobile flood protection equipment

## EUR 0,74 million

- Purchase of equipment for reaction in extraordinary situations

## EUR 6 million

- Floods **RISK MAP** development for areas not included thus far
- Improvement of water information system of the Srbijavode Company
- Improvement of **EARLY WARNING** system

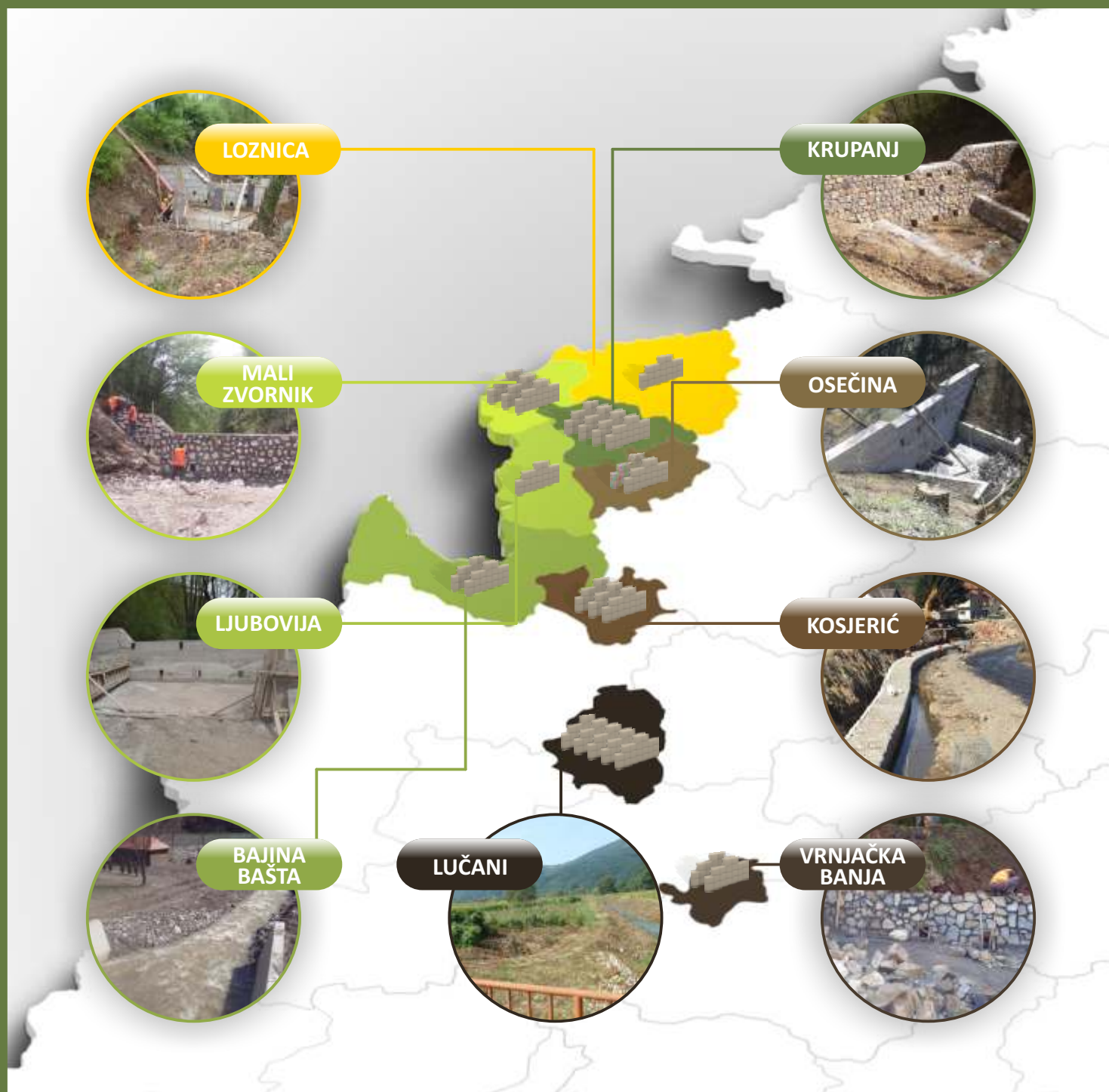


## EUR 9,27 million

- Cleaning of drainage systems – Municipalities of Obrenovac, Surčin and Novi Beograd



# CONSTRUCTION OF TORRENT CHECK DAMS



In the last 20 years, the total of 19 torrent check dams has been constructed in Serbia. In 2015 alone, as many as 29 such facilities were erected. Funds for the construction of 18 dams have been provided by the UNDP (Krupanj, Mali Zvornik, Bajina Bašta, Ljubovija, Osečina, Vrnjačka Banja, Kosjerić and Loznica), 5 dams have been built in the municipality of Lučani with the funds from the donation of Canada through the UNOPS, and 5 dams have been built from the donation of Japan through the UNDP (Koceljeva, Ljubovija, Kladovo and Negotin) and another one in Bosilegrad with the funds from the donation of Turkey.



# LANDSLIDE CADASTRE



A project has been initiated that will enable systematic landslide exploration in Serbia, terrain survey, risk assessment and mapping, cost-efficiency analysis of the rehabilitation projects, the development of landslide cadastre and training for local self-governments for systematic monitoring of landslides, which affect 30% of Serbian territory.

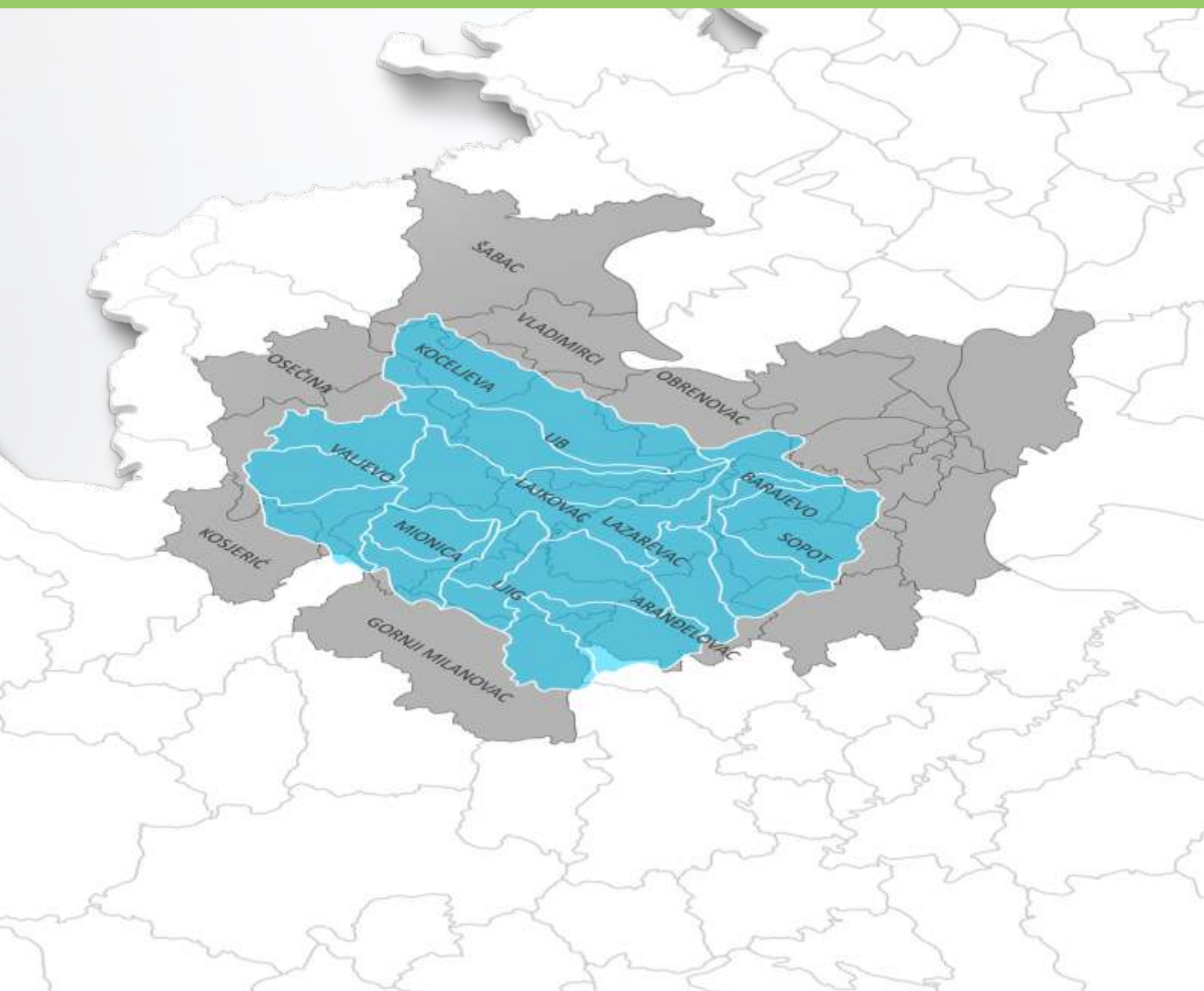
The project funded by the Government of Japan, implemented through UNDP in Serbia is worth USD 3.6 million. The project is implemented by the Serbian Geology Institute, as lead agency, and Mining and Geology Faculty of the University of Belgrade, as implementing agency.

The project will include the following municipalities: Obrenovac, Lazarevac, Čačak, Trstenik, Varvarin, Kragujevac, Jagodina, Paraćin, Svilajnac, Velika Plana, Smederevska Palanka, Kraljevo, Šid, Šabac, Loznica, Mali Zvornik, Krupanj, Ljubovija, Kosjerić, Bajina Bašta, Osečina, Koceljeva, Valjevo, Ub, Kladovo, Majdanpek and Negotin.





# THE STUDY OF FLOOD PROTECTION IN THE KOLUBARA RIVER BASIN



The study for the protection of flooding in the Kolubara river basin is completed, implemented by UNDP, with financial support of the Government of Japan.

It is a comprehensive analysis that should identify efficient methods of protection from urban flooding in the Kolubara river basin, where in May 2014, the damage was assessed at over EUR 900 million. The area of the Kolubara river basin covers parts or entire municipalities: Obrenovac, Barajevo, Sopot, Lazarevac, Koceljeva, Vladimirci, Šabac, Osečina, Ub, Lajkovac, Mionica, Ljig, Arandjelovac, Gornji Milanovac and Kosjerić, as well as the town of Valjevo, parts of the territories of Kolubarski, Mačvanski, Moravički, Šumadijski and Zlatiborski Districts and the City of Belgrade. The study would be used to improve the safety of citizens and property in this part of the Republic of Serbia.



# ACCUMULATION LAKES WITHIN THE KOLUBARA BASIN

## VLADIMIRCI

Dubravac River  
Vukušić village

## KOCELJEVA

Tamnava River  
Šabačka Kamenica village

## VALJEVO

Obnica River  
Pričević and Stave village

## UB

Ub River  
Pambukovica village

## LJIG

Kačer River  
Poljanice village

## MIONICA

Ribnica River  
Struganik village



These systems for flood defence will be able to store flood waves of around 10 million cubic meters of water which is sufficient to stop the floods of the intensity as the ones in 2014. Planned accumulation lakes will have the surface of 100 to 200 hectares, while the water in the accumulations, during dry periods, could be used to irrigate agricultural crops over the surface of 3,000 to 5,000 hectares. Preparation of design documentation, funded by the European Union and the World Bank, is currently under way.



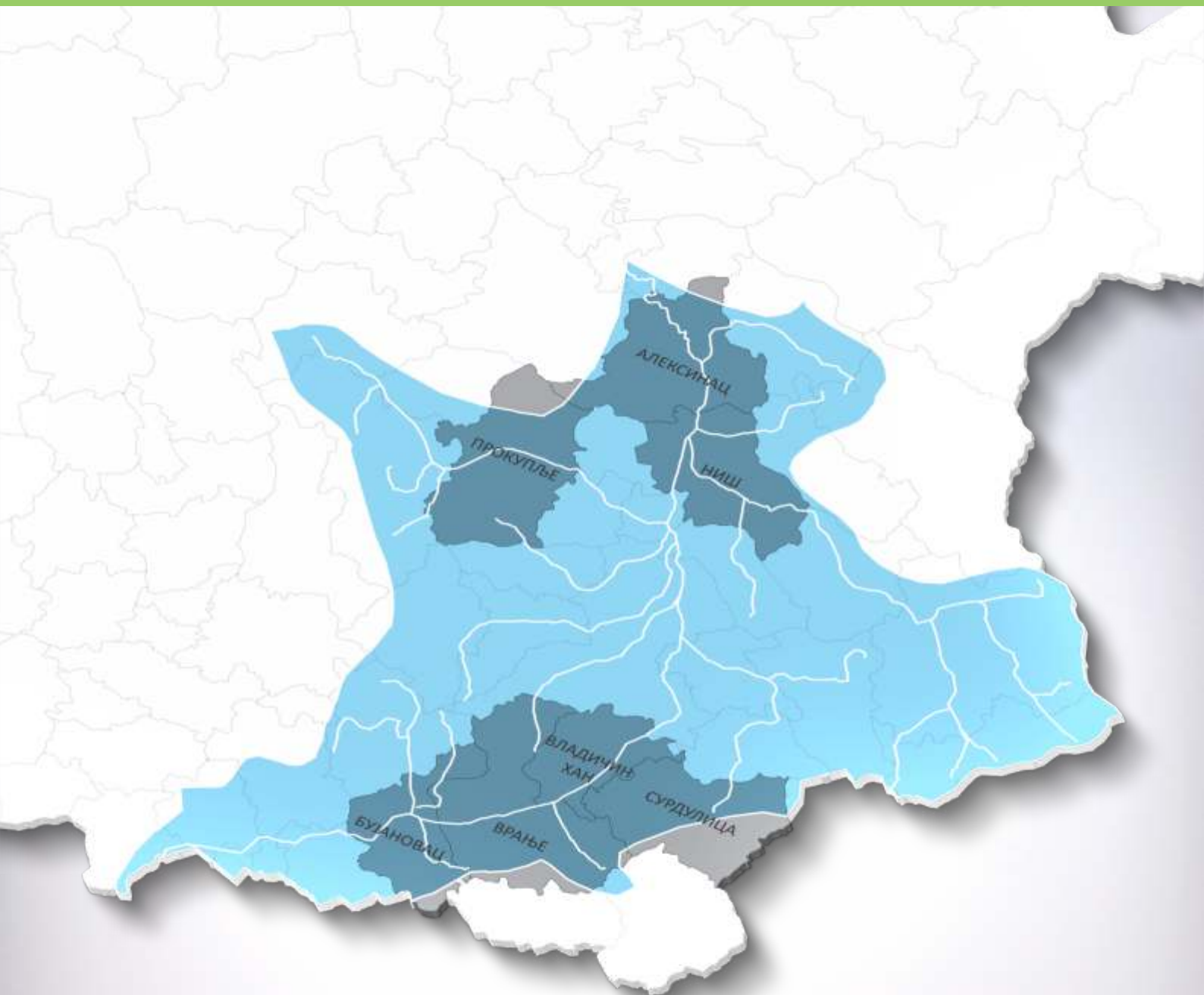
# STUDY OF FLOOD PROTECTION IN ZAPADNA MORAVA RIVER BASIN



**The study will be used to improve safety of citizens and property in Western-Central part of the country. Terms of Reference has been prepared, sources of funding are currently being identified.**



# STUDY OF FLOOD PROTECTION IN JUŽNA MORAVA RIVER BASIN



**The study will be used to improve safety of citizens and property in Southern Serbia. Public procurement for the selection of the Contractor for the Study is currently underway. The Study preparation will be funded by the European Union within the European PROGRES Programme.**





# LESSONS LEARNED – POLICY INNOVATION

**In 7 MONTHS**

**RECOVERY**

**PREVENTION**

## REPUBLIC OF SERBIA NEEDS TO:

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- **Develop a systemic approach** towards risk management and reduction
- Undertake activities and measures on **strengthening prevention**
- Plan and implement **investments based on** understanding risk
- Ensure the highest possible level of **protection of lives and assets** from new floods and other natural disasters
- **Reduce risk and damages** of natural disasters

**National Disaster Risk Management Program  
Adopted by the Government in December 2014**



### NATIONAL DRM PROGRAM:

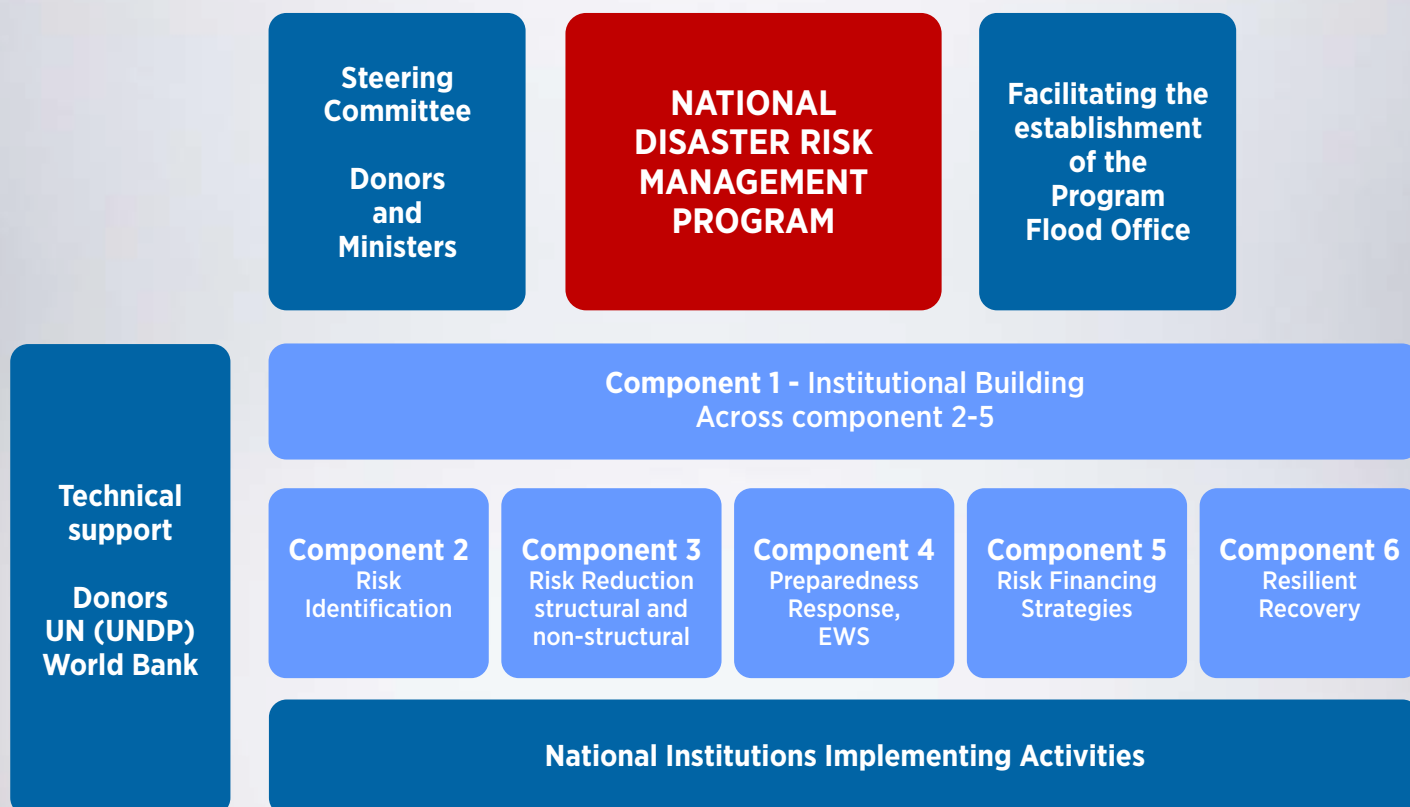
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- The objective is to support the Government of Serbia to build a **comprehensive program for disaster resilience**.
- Program used as an **umbrella framework** to **coordinate, channel funds, and implement activities** related to reducing and managing risks in Serbia.
- Program relies on **improving coordination of activities between existing structures** within the Government.
- Program developed in partnership with WB, UN, EU and Switzerland.

**National Disaster Risk Management Program  
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# NDRM PROGRAM STRUCTURE





# POLICY INNOVATIONS DRCM

**NDRPM**

**Disaster Risk and  
Crisis Management  
Law\***

**Action Plan\***

- **New legislative framework developed with support of EU, UN and WB**
- **Systemic approach to the DRCM and recovery process: prevention-response-reconstruction**
- **Key innovations based on global best practices and lessons learned:**
  - Establishment of a new national authority for DRCM
  - Prevention based on: Risk Assessments - Risk Reduction and Management Plans
  - Identification of: Areas of increased risk (National authority has the right to restrict/forbid certain activities) and Areas of immediate risk (any activity must be specifically allowed by the Authority, given the very high level of risk)
  - Establishment of a Risk Registry: electronic database for sharing of all information relevant to prevention, risk reduction and response
  - Response based on Rescue and Protection Plans

**\* Serbia aims to be the one of the first countries in the world with legislation fully aligned with Sendai Framework**





# POLICY INNOVATIONS RECONSTRUCTION

**Law on Post-  
flood Recovery**

**NDRMP**

**Law on  
Reconstruction\***

- **Permanent legislation based on the 2014 post-flood recovery lex specialis and lessons learned**
- **Law regulates eligibility criteria for assistance and prescribes procedures for claims**
- **Additionally: Changes introduced in Public Procurement Law to allow for prompt reaction and timely procurement in periods of emergencies**

**\* Serbia aims to be one of the first countries in the world with legislation fully aligned with Sendai Framework**



# POLICY INNOVATIONS

## DRCM - AP

**NDRPM**

**Action Plan\***

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- Action plan for the implementation of National Disaster Risk Management Program is for the **period 2016 – 2020**
  - Systemic approach to the DRCM and recovery process: prevention-response-reconstruction **based on global best practices and lessons learned**
  - With support from **WB, EU and UNDP**
  - Completely **in line with Sendai Framework for Disaster Risk Reduction** 2015-2030
  - **Results-oriented** and presents know-how activities with specific budget
  - **Gender-balanced**



# POLICY INNOVATIONS DRCM - AP

**NDRPM**

**Action Plan\***

## AP MATRIX

Results	Activities	Indicators	Leading institution
Partner institution(s)	2016-2020	Resources allocated	Resources required

- Resources allocated **EUR 70,000,000**  
(budget, international development assistance and loans )
- Resources required **EUR 1,040,450,520**



# POLICY INNOVATIONS DRCM - AP

**NDRPM**

**Action Plan\***

## **Institutional building and development - education and training**

- School programs (elementary education), University MSc and PhD programs,
- Improvement for National DRM Training Centre - education and training for the national and local servants based on curriculums in cooperation with Universities

## **Identifying and monitoring disaster risks - data sharing**

- Through intranet with interoperability (government, local self-governments and public enterprises) – [G cloud](#)
- Establishment of a [Risk Registry](#): electronic database for sharing of all information relevant to prevention, risk assessment, reduction and response / interactive map in GIS with open data for public purposes

## **Structural and non-structural measures – risk reduction**

- All project ([ongoing and planned](#)) regarding DRR and DRM marked in one document





# POLICY INNOVATIONS DRCM - AP

**NDRPM**

**Action Plan\***

## **Early warning system and Response**

- Based on analyses, studies, data sharing, strict procedures and Rescue and Protection Plans

## **Financial strategy – instruments for risk financing and transfer**

- Establishment of instruments for financing system for disaster and other hazard risk management planned on the basis of risk assessment
- Creation of necessary preconditions for the improvement of disaster risk transfer

## **Resilient recovery - build back better**

- Establishment of a functional and sustainable disaster recovery system