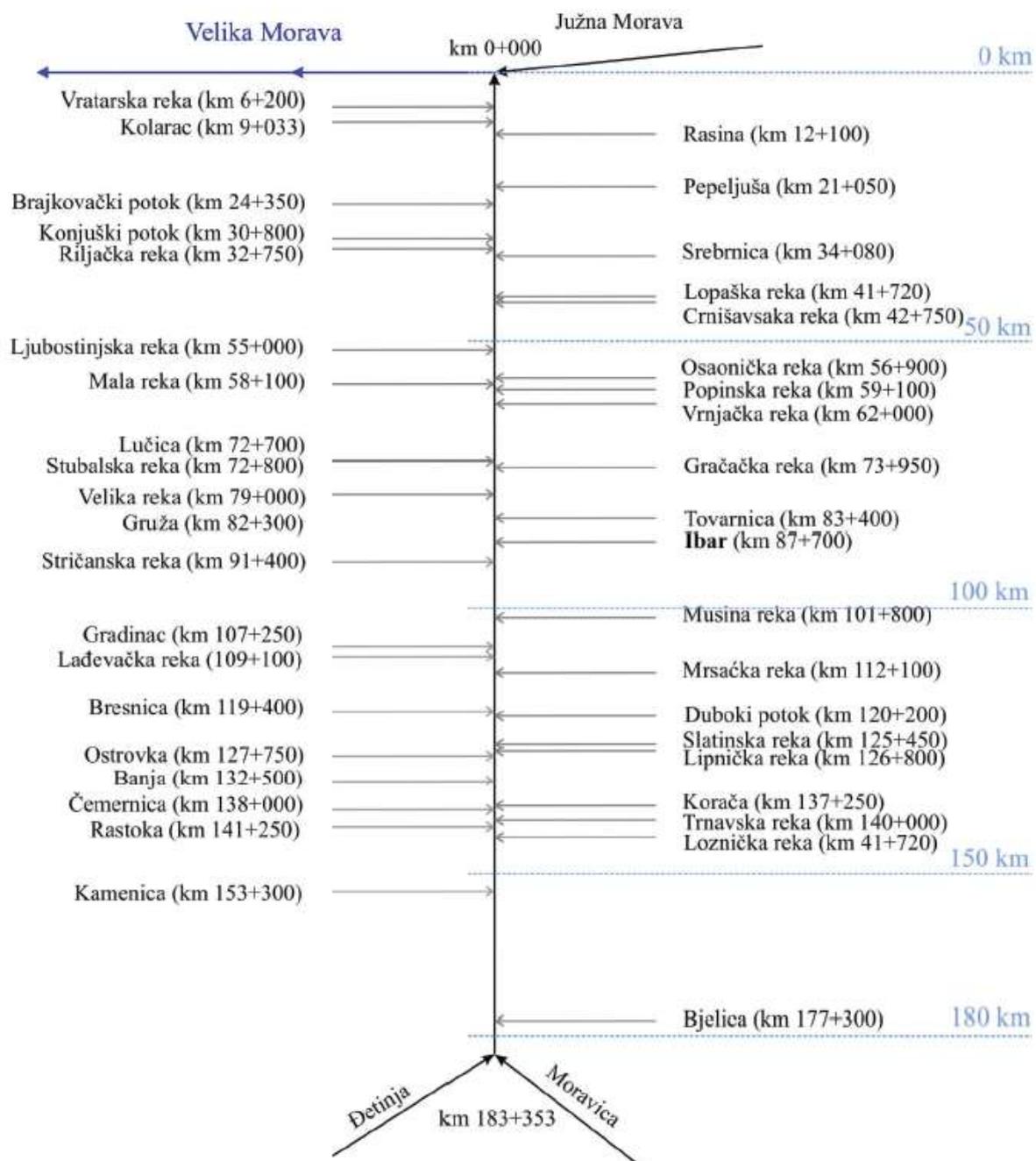


Disaster Risk Reduction Programme for the Western Morava River Basin 2019–2021



The Programme has been designed, in methodological terms, in accordance with the *Law on the Planning System of the Republic of Serbia* (Official Gazette of RS, no. 30/2018 of 20 April 2018)¹ and the *Draft Decree on the Methodology of Public Policy Management, Assessment of Impact of Public Policies and Regulations and the Content of Individual Public Policy Documents* of 05 January 2017.²

1. Introduction – On the Initiative of Local Self-Government Association by River Basin for the Purpose of More Efficient Disaster Risk Reduction

In May 2014 Serbia suffered floods on a scale unrecorded in the past 120 years. They threatened the lives, health and property of more than 1.6 million people (22 per cent of the total population) in 38 municipalities in central and western Serbia. According to the results of damage assessment, which was carried out with the support of the European Union, the United Nations and the World Bank, total flood damage amounted to 1.7 billion euros, or more than 4 per cent of GDP. It is estimated that 125,000 citizens fell below the poverty line following the flood, which resulted in an increase in poverty by almost 7 per cent compared to the level of the year before. In September 2014, barely four months after the May floods, three municipalities of the Bor District in the eastern part of Serbia were hit by heavy flash floods that triggered a number of landslides and emergencies declared in that part of Serbia.

The above events were the reason for changed approach, new institutional solutions and new public policies related to disaster risk reduction and emergency management – both at the central and local self-government levels.

Local self-governments recognised the importance of mutual cooperation for the purpose of reducing common natural disaster risks, responding in emergencies, as well as post-disaster recovery.

Thus, **the first meeting of representatives of the cities and municipalities of the Western Morava River Basin was held in Kraljevo in March 2016**, at the initiative of the competent Civil Protection Department (then named the Department of Defence Affairs and Emergencies and Engineering-Geological and Seismic Affairs) of the Kraljevo City Administration. This initiative was supported by the Public Investment Management Office (PIMO), the Standing Conference of Towns and Municipalities (SCTM) and the United Nations Development Program (UNDP). The meeting identified common natural disaster risks, as well as the activities that would be implemented in case of future cooperation.

This cooperation was formalised by formal signing of the ***Cooperation Protocol of the Cities and Municipalities in the Western Morava River Basin*** for the purpose of common risk reduction and rapid recovery after natural and other disasters, **in Kraljevo on 10 February 2017**, in the presence of government officials, representatives of relevant public enterprises and institutions, associations and international organisations. The protocol was signed by all 17 cities and municipalities of the river basin. The first Western Morava River Basin meeting was held in Vrnjačka Banja in March 2017, when the Technical Coordination Team was established and the Technical Team Secretary as well as his deputy were appointed, and when the proposed activities for the next period were adopted.

The launch of the initiative of association of the Western Morava River Basin cities and municipalities was immediately followed by association in the Kolubara river basin, so the initiative for the **Kolubara**

¹ Retrieved from: <http://www.parlament.gov.rs/upload/archive/files/lat/pdf/zakoni/2018/2386-17%20lat.pdf> on 16 July 2018.

² Retrieved from: https://www.paragraf.rs/nacrti_i_predlozi/050117-uredba_o_metodologiji_upravljanja_javnim_politikama_analizi_efekata_javnih_politika_i_propisa_i_sadrzaju_pojedinačnih_dokumenata_javnih_politika.html on 10 April 2018.

River Basin Cooperation Protocol on Cooperation was signed in Obrenovac on 23 December 2016. Eight of the total of 14 local self-governments of this area thus joined forces.

The 20th SCTM network, named the **SCTM Risk and Emergency Management Network** was formed in March 2017. The appointed river basin secretaries are advisors to the network coordinator and comprise the Technical Council, which, if necessary and upon the invitation of the SCTM, line office or ministry, can represent the positions of the SCTM members before domestic and international partners and institutions on the subject of prevention, emergency management, civil protection, as well as rapid recovery after natural and other disasters, of which it reports to the SCTM Secretary General, as well as the members in the first following meeting of the Network.

The support to the association of local self-governments by river basin is also provided by UNDP Serbia through the project **South East Europe Urban Resilience Building Action Network – SEE URBAN**, through the work of the Technical Task Force established on 14 June 2017. This task force brings together the secretaries of river basin coordinator teams and their deputies, as well as representatives of relevant national institutions, representing a platform for discussion and joint planning of future activities.

Two more protocols were signed at the ceremony at the Belgrade City Assembly on **22 February 2018**: the **Cooperation Protocol of the Cities and Municipalities in the Great Morava River Basin** (12 cities and municipalities) and the **Cooperation Protocol of the Cities and Municipalities in the Upper Danube River Basin – Banat Watercourses** (19 local self-governments). The Drina river basin association initiative was signed at the meeting in Loznica on 13 June 2018, in the presence of “observer” local self-governments from Bosnia and Herzegovina.

Numerous working meetings, discussions, training sessions and conferences were held, at which the representatives of river basins acted jointly, but the operationalisation of cooperation and the “value added” of the joint approach to disaster risk reduction have not yet been fully achieved. This is expected to happen through the application of the new Law Amending the Law on Local Self-Government (Official Gazette of RS, no. 47/2018 of 20 June 2018) and the Law Amending the Law on Public Administration (Official Gazette of RS, no. 47/2018 of 20 June 2018)³.

In order to create conditions for formal and operational improvement of intermunicipal cooperation, **joint measures, activities and projects** need to be **systematically inventoried and prioritised** in a strategic document such as the Programme, which will serve as a **basis for financial planning and budgeting** of specific initiatives. This Programme will be adopted for a three-year period: 2019–2021.

1.1. Legal Basis

Joint planning and programming of funds for natural disaster risk reduction and emergency management is not envisaged by the existing Serbian legal framework, but this form of strategic public policy planning has been undertaken in order to respond more efficiently to natural and other disasters that do not recognise administrative borders.

The local self-government (LSG) *shall ensure environmental protection, protection against natural and other disasters*, as prescribed by the [RS Constitution](#) (Official Gazette of RS, no. 98/2006) in Article 180, paragraph 1, item 6, and *perform other tasks of local importance specified by law (e.g. in the areas of defence, protection and rescue, fire protection, youth policy, animal welfare etc.)* in

³ Retrieved from: <http://www.parlament.gov.rs/upload/archive/files/lat/pdf/zakoni/2018/1128-18%20lat.pdf> on 17 July 2018.

accordance with the [Law on Local Self-Government \(Official Gazette of RS, nos. 129/2007 and 83/2014 – other law and 101/2016 – other law and 47/2018\)](#), Article 20, paragraph 1, item 15.

Pursuant to Article 15 of the [Law on Emergencies \(Official Gazette of RS, nos. 111/09, 92/11 and 93/12\)](#), in exercising the rights and duties in the matters of protection and rescue, the local self-governments shall perform the following tasks through their bodies:

1. Pass a decision on organisation and functioning of civil protection in the territory of the local self-government unit and ensure implementation thereof in accordance with the integrated protection and rescue system;
2. Adopt a protection system development plan and programme for the territory of the local self-government unit in accordance with the Long-Term Plan of Protection and Rescue Development of the Republic of Serbia;
3. Plan and identify sources of funding for development, setting up and execution of protection and rescue tasks and civil protection development and implementation of civil protection measures and tasks in the local self-government territory;
4. Set up the Disaster Response Team;
5. Cooperate directly with the competent service, other government bodies, companies and other legal persons;
6. Cooperate with regions and municipalities of neighbouring countries, in accordance with this Law and other laws;
7. Align their own protection and rescue plans with the RS Plan of Protection and Rescue in Emergencies;
8. Identify trained legal persons of special interest for protection and rescue;
9. Ensure telecommunication and information support for protection and rescue, as well as ensure integration in the telecommunications and information system of the Service for Surveillance, Warning and Alert and liaise with it;
10. Develop and adopt the Vulnerability Assessment and the Emergency Protection and Rescue Plan;
11. Monitor for hazards, inform the population about hazards and take other preventive measures for mitigating risks of natural and other disasters;
12. Procure and maintain alarm instruments within an integrated public early warning system in the Republic of Serbia and participate in the development of the study of public early warning system coverage for the local self-government unit territory;
13. Organise, develop and implement personal and collective protection;
14. Set up, organise and equip general-purpose civil protection units;
15. Align emergency protection and rescue plans with neighbouring local self-government units.

The competent local self-government body, in cooperation with the competent service, competent bodies of the autonomous province, municipal or city disaster response team and other technical local self-government bodies shall develop the local self-government vulnerability assessment and propose to the competent local self-government body its adoption.

Article 55 of the [Water Law \(Official Gazette of RS, nos. 30/10, 93/12 and 101/16\)](#) prescribes that the local self-government adopts a Flood Protection Operational Plan for category II watercourses through its competent bodies, in accordance with the general plan and operational plan for category I watercourses, for the period of one year, not later than 30 days from the day of adopting the operational plan for category I watercourses.

In addition, *the local self-government shall, for the purpose of updating the water management plan, record all occurrences and works that may affect the state of erosion and torrents and submit information on this to the public water management company once a year, in accordance with Article 61.*

After a natural disaster, for the purpose of reconstruction and rapid recovery, and pursuant to Articles 15 and 16 of the [Law on Recovery after Natural and Other Disasters \(Official Gazette of RS, no. 112/15\)](#), the local self-government invites citizens to report the damage incurred without delay and not later than 15 days from the end of natural or other disaster declared. In addition, the local self-government forms the necessary number of commissions to assess the damage to citizens' property after a natural or other disaster in accordance with the Government document which regulates the uniform methodology for assessing damage from natural and other disasters, and ensures uniform and harmonised application of the document on uniform methodology for assessing damage from natural and other disasters.

Pursuant to the [Instruction on Uniform Methodology for Assessing Damage from Natural Disasters \(Official Gazette of SFRY, no. 27/87\)](#), the local self-government is obliged to form a municipal commission, which subsequently forms the necessary number of technical commissions for assessing damage following natural and other disasters.

The possibility of joint performance of delegated tasks at the proposal of government bodies is provided for by the Amendments to the Public Administration Law of June 2018: *the public administration body may propose to the bodies of two or more municipalities, or to the bodies of municipalities and cities, jointly to ensure the performance of certain delegated tasks after determining that they are unable to perform these tasks efficiently.*

The bodies of the municipalities, or of the municipalities and cities, shall respond to the proposal within 30 days.

If the proposal referred to in paragraph 3 of this Article is accepted, a cooperation agreement regulating joint performance of delegated tasks shall be submitted to the ministry in charge of local self-government.

The approval of joint performance of delegated tasks shall be given by the Government at the proposal of the ministry in charge of local self-government, upon previously obtaining opinion of the ministry responsible for the performance of delegated tasks.

The conditions and manner of joint performance of delegated tasks shall be regulated by a Government decree.

Joint preventive action of local self-governments can be implemented through intermunicipal cooperation, in accordance with Articles 13, 88 and 89 of the *Law on Local Self-Government*:

1.2. Reasons for Adopting the Joint Programme

The River Basin Disaster Risk Reduction Programme is prepared in order to establish a method for systematic inventory and prioritisation of planned initiatives and activities of associated local self-governments, but also a basis for preparing future agreements or contracts, and subsequently for programme budgeting of each individual local self-government.

The need for public intervention exists because local self-governments encounter administrative barriers in programme budgeting of simple measures in their own territory as well, while coordinated investment and possible pooling of funds in order to reduce common risks currently present a considerable challenge.

The preparation of the Western Morava River Basin Disaster Risk Reduction Programme has been undertaken at the initiative of the Secretary of the Technical Team of Coordinators of the Western Morava River Basin.

Such a document is being adopted for the first time and represents a pilot project for testing the concept of joint programming of measures, activities, projects, as well as funds.

1.3. Information about the Bodies and Institutions Involved in the Development of the River Basin Disaster Risk Reduction Programme

The body that develops, lays down and adopts the Western Morava River Basin Disaster Risk Reduction Programme is the Technical Team of River Basin Coordinators, defined by the Cooperation Protocol.

Local representatives of city or municipal administrations who are engaged in similar tasks, as well as representatives of civil and private sectors in the basin, are also involved in the development and preparation of the Programme.

At the SEE Urban Project round tables in Kragujevac on 24 May 2018 and in Zrenjanin on 31 May 2018, information about this process was also provided to competent central institutions: the Ministry of Public Administration and Local Self-Government, the Ministry of Finance, the Ministry of the Interior – Sector for Emergency Management and the Public Investment Management Office.

The Programme development was also supported by the United Nations Development Program (UNDP) and the Standing Conference of Towns and Municipalities (SCTM).

2. Information about the Public Policy Documents and Legal Framework Relevant to this Programme

The National Natural Disaster Risk Management Programme, adopted by the Resolution of the Government of the Republic of Serbia 05 no. 217–16233/2014–1 of 19 December 2014, is the basic and umbrella public policy document in this area.

The National Programme has 6 components:

Component 1: Institution building,

Component 2: Disaster risk identification and monitoring,

Component 3: Structural and non-structural risk reduction,

Component 4: Early warning and preparedness system,

Component 5: Risk funding strategies,

Component 6: Resilient recovery.

The *Action Plan for Implementation of the National Natural Disaster Risk Management Programme* was also adopted and includes target indicators, measures, results, information about required funds, institutions tasked with implementation, schedule etc.

The legal framework relevant to this Programme is shown in Section 1.1, and the systematised list of duties of local self-governments related to disaster risk reduction, as well as the legal basis for these duties, are shown in the following table:

DUTIES OF LSGs WITHIN THE CONTEXT OF REDUCING THE RISK OF NATURAL AND OTHER DISASTERS	Legal basis – legal act
Decision on Civil Protection Organisation and Operation	Law on Emergencies

Plan and Programme of Protection and Rescue System Development	
Vulnerability Assessment	
Emergency Protection and Rescue Plan	
Decision on Designating Qualified Legal Entities of Importance for Protection and Rescue	
Decision on Establishing Local Disaster Response Teams	
Decision on Establishing General-Purpose Civil Protection Units	
Decision on Establishing Damage Assessment Commissions	Law on Recovery after Natural and Other Disasters
Flood Protection Operational Plan for Category II Watercourses	Water Law
Recording all occurrences and works that may affect the state of erosion and torrents	
Including the borders of flood-prone areas and borders of erosion areas in spatial and urban plans	

The principles that will apply in the preparation and implementation of this Programme are identical to the principles of the signed Cooperation Protocols: the joint work will be based on the principles of partnership, consensus, transparency, accountability, joint planning and alignment of activities, common interest, mutual information and autonomy of all parties.

3. Description of the State of Play (Situation Analysis) in the River Basin

Since 2010, the Western Morava river basin area (17 cities and municipalities) was hit by several natural disasters that had a large impact on the population and animals and caused major damage to agriculture, infrastructure, material and cultural assets and the environment.

The most frequent natural disasters, which are a constant threat in terms of their impact on the population, the economy and the environment, are:

- **earthquakes** – an earthquake measuring 5.4 on the Richter scale was recorded in the area of Kraljevo in 2010; two persons lost their lives and over 180 persons were injured; the Western Morava river basin area is on the 975-year return period map (source: RS Statistical Office) with macroseismic intensity on the local ground surface of VIII to IX, and some parts even over IX;
- **floods** – in the period 2014–2017, this area was hit several times by floods that caused major damage, primarily to infrastructure; an emergency was declared in the whole territory of Serbia in 2014; due to the geomorphology of the terrain, the occurrence of flash floods is also frequent, which are difficult to foresee, and the damage was mostly recorded on infrastructure (local roads and bridges);
- **landslides** – terrain conditions in hilly and mountainous areas, erosion processes and lack of risk mitigation efforts result in a constant threat of landslides; the greatest damage was recorded on infrastructure, and in 2014 and 2015 residential facilities were also affected²;

- **snowdrifts** – these phenomena appeared several times in the Western Morava river basin area during winter in the period 2010–2017, and resulted primarily in the disruption of traffic with remote (hilly and mountainous) parts of cities and municipalities; in view of the fact that mostly elderly (rural) households live in the most remote of the territory of cities and municipalities, snowdrifts are a major and unacceptable risk for the population and animals;

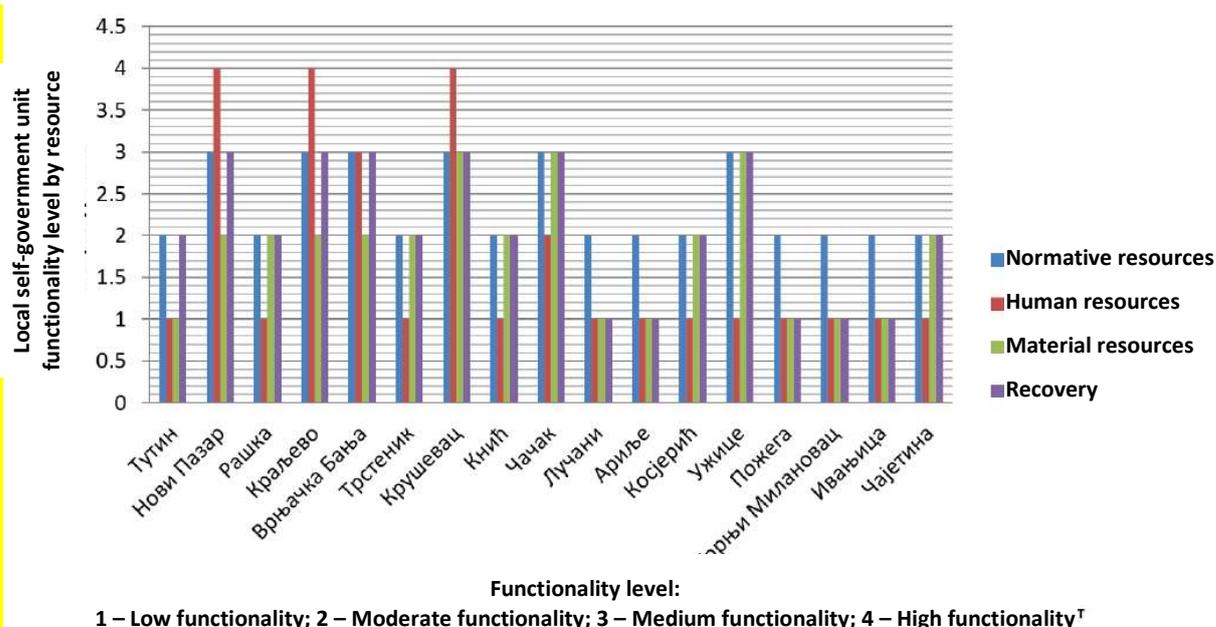
- **hail** – the area of the Balkans, including this area, is exposed to a constant and high risk of hail; in the previous period, significant damage was recorded to agricultural crops (the cities of Čačak, Kraljevo and Kruševac, as well as the municipalities of Ivanjica, Lučani, Arilje, Kosjerić and Gornji Milanovac); an additional problem is that, due to insufficient funds and deficiencies in the hail suppression system, the system is not fully functional and the procurement of hail suppression rockets as well as the work of hail suppression rocket system operators are often funded by cities and municipalities, although it is a responsibility of the Republic of Serbia, i.e. the Republic Hydrometeorological Service (see the Hail Protection Law, Article 16); the hail suppression season lasts from 15 April to 15 October;

- **droughts** – in the previous period, no emergencies were declared as a result of drought, but the largest losses, according to primarily agricultural experts, occur due to drought; although emergency was not declared, drought was recorded in two years (2012 and 2017), and the damage was primarily suffered by agricultural crops; in the summer period, there is often a shortage of drinking water, which is a direct consequence of drought; due to climate change, drought can be said to pose possibly the greatest risk to the population, animals, the economy and the environment³;

- **forest fires** – some of the largest fires in the territory of the Republic of Serbia in the previous period were recorded in the Western Morava river basin territory; the risk of forest fires, especially in the summer period, is high and poses a great danger to cultural and historical heritage and the environment; the size of the fire sites ranges from several hectares to several hundred hectares of forest.

- Analysis of the capacity of each local self-government in the river basin:

City/municipality	Competent service/department	
Tutin	One officer	!
Novi Pazar	Department within the City Administration (8 established positions)	✓
Raška	One officer	!
Kraljevo	Department within the City Administration (8 established positions)	✓
Vrnjačka Banja	Unit within the competent department of the Municipal Administration (5 established positions)	✓
Trstenik	One officer	!
Kruševac	Department within the City Administration (12 established positions)	✓
Knić	One officer	!
Čačak	Two officers	!
Lučani	One officer	!
Arilje	One officer	!
Kosjerić	One officer	!
Užice	One officer	!
Požega	One officer	!
Gornji Milanovac	One officer	!
Ivanjica	One officer	!
Čajetina	One officer	!



- Analysis of the fulfilment of each LSG's duties stipulated by law:

City/municipality	Vulnerability assessment	Protection and rescue plans	Decisions on forming CP units	Decisions on designating qualified legal entities	Protection operational plan	Protection and rescue system development plan	Natural Disaster Risk Reduction Plan	Decision on Establishing Damage Assessment Commissions
Tutin	-	-	+	+	+	-	-	+
Novi Pazar	-	-	+	+	+	-	-	+
Raška	-	-	+	+	-	-	-	+
Kraljevo	-	-	+	+	+	-	-	+
Vrnjačka Banja	-	-	+	+	+	-	-	+
Trstenik	-	-	+	+	+	-	-	+
Kruševac	-	-	+	+	+	-	-	+
Knić	-	-	+	+	+	-	-	+
Čačak	-	-	+	+	+	-	-	+
Lučani	-	-	+	+	+	-	-	+
Arilje	-	-	+	+	+	-	-	+
Kosjerić	-	-	+	+	+	-	-	+
Užice	-	-	+	+	+	-	-	+
Požega	-	-	+	+	+	-	-	+
Gornji Milanovac	-	-	+	+	+	-	-	+
Ivanjica	-	-	+	+	+	-	-	+
Čajetina	-	-	+	+	+	-	-	+

The above data were taken from the Analytical Study of the Serbian River Basins by Zdravko Maksimović, published by the United Nations Development Program, 2017.

4. Definition of Desired Change

Making a joint river basin disaster risk reduction programme should contribute to:

- Harmonisation of quality and alignment of strategic and operational documents and plans,
- Harmonisation of quality and alignment of capacities of general-purpose civil protection units,
- More efficient procurement of joint equipment,
- More efficient training and public campaigns according to the “economies of scale” principle,
- Better preparedness for the mutual assistance of LSGs along the river basin in emergencies.

5. Definition of Programme Goals

The goals that will be pursued in the preparation and implementation of this Programme are in line with the goals of the signed Cooperation Protocols.

The goal is joint work on creating a more resilient community and joint action aimed at risk reduction, as well as response and rapid recovery after natural and other disasters.

In order to achieve the goal, and in accordance with the content of the Cooperation Protocol and the components of the National Programme, four objectives have been defined:

- Institution strengthening, more efficient implementation of the laws and cooperation improvement;
- Adequate disaster risk identification and monitoring;
- Improving the early warning system and increasing the preparedness for disasters;
- Preparedness for resilient recovery according to the "build back better" principle⁴.

For each objective, performance indicators have been identified at the level of objectives (final outcome indicators), and their baseline values, target values and verification sources determined. Wherever possible, special efforts have been made to explain the advantages and "value added" of joint action of LSGs in the river basin.

Performance indicators at the level of objectives, i.e. final outcome indicators

Objective	Institution strengthening, more efficient implementation of the law and cooperation improvement
Connection with the National Programme	Component 1: Institution building
Performance indicator at the level of objective – final outcome indicator 1	Joint Service/Office for Civil Protection and Disaster Risk Reduction in the Western Morava River Basin established and functional
Baseline value	0
Target value	1
Verification source	Agreement / Founding Act, Financial Plan, Financial Report
Advantages of joint action of LSGs in the river basin	More efficient use of the existing capacities
Performance indicator at the level of objective – final outcome indicator 2	Aligned Vulnerability Assessments of LSGs in the river basin adopted (potentially derived from the joint Vulnerability Assessment for the whole river basin)
Baseline value	0
Target value	5
Verification source	Approval obtained from the Sector for Emergency Management
Advantages of joint action of LSGs in the river basin	Risk identification and monitoring in the whole Western Morava river basin aligned
Objective	Adequate disaster risk identification and monitoring
Connection with the National Programme	Component 2: Disaster risk identification and monitoring
Performance indicator at the level of objective – final outcome indicator 3	Georeferenced hazard mapping in the local self-government units of the Western Morava river basin established
Baseline value	1

⁴ In accordance with Article 10 of the Law on Recovery after Natural and Other Disaster (Official Gazette of RS, no. 112/15)

Target value	15
Verification source	Google hazard maps published and available
Advantages of joint action of LSGs in the river basin	Presentation of hazards in the whole Western Morava river basin aligned

Objective	Improving the early warning system and increasing the preparedness for disasters
Connection with the National Programme	Component 4: Early warning and preparedness system
Performance indicator at the level of objective – final outcome indicator 4	Civil protection set up in line with the risks in the river basin – general-purpose and specialised civil protection units formed, trained and equipped
Baseline value	...
Target value	...
Verification source	
Advantages of joint action of LSGs in the river basin	Single early warning system in the upper and lower Western Morava, serving citizens and businesses

Objective	Preparedness for resilient recovery according to the “build back better” principle
Connection with the National Programme	Component 6: Resilient recovery
Performance indicator at the level of objective – final outcome indicator 5	Capacities for post-disaster damage, loss and need assessment improved – the number of trained assessors or commission members
Baseline value	1
Target value	15
Verification source	Training and exam certificates
Advantages of joint action of LSGs in the river basin	Assessments in the whole Western Morava river basin aligned, possibility of mutual assistance in the work of commissions

6. Identification of Programme Measures

The purpose of the measures of the Western Morava River Basin Disaster Risk Reduction Programme is to achieve the Programme goals and objectives. Output indicators have been identified at the level of measures, with an overview, i.e. a short description of projects and/or activities through which the measures of this Programme will be implemented.

1. OBJECTIVE: Institution strengthening, more efficient implementation of the law and cooperation improvement

1.1. MEASURE – **Aligning local documents with national regulations, international frameworks and mutually** (regulatory and organisational/management/institutional instruments):

1.1.1. Signing of the Western Morava River Basin Agreement;

- 1.1.2. Creation and adequate technical and staff resourcing of the Joint Service for Civil Protection and Disaster Risk Reduction of the Western Morava River Basin;
 - 1.1.3. Preparation of the River Basin Vulnerability Assessment and the River Basin Protection and Rescue Plan (PRP);
 - 1.1.4. Preparation of local documents stipulated by law;
 - 1.1.5. Preparation of the River Basin Risk Reduction Plan.
- 1.2. **MEASURE – Partnership strengthening and awareness raising** (information/educational instrument):
- 1.2.1. All institutions of significance at the local level within the river basin clearly indicated, including the private sector;
 - 1.2.2. Organisation of joint projects and/or campaigns (e.g. volunteer river basin cleaning campaigns) with defined partner civil society organisations (CSOs);
 - 1.2.3. All institutions of significance, including CSOs, trained and equipped for adequate response;
 - 1.2.4. Cooperation with educational/scientific institutions;
 - 1.2.5. Citizen awareness-raising campaigns about disaster risks, as well as involving interested public in the Vulnerability Assessment and PRP preparation processes.
2. **OBJECTIVE: Adequate disaster risk identification and monitoring**
- 2.1. **MEASURE – Spatial presentation of hazards** (information/educational instrument):
- 2.1.1. Preparing a joint Google hazard map at the river basin level;
 - 2.1.2. Trainings for hazard mapping and information updating.
3. **OBJECTIVE: Improving the early warning system and increasing disaster preparedness**
- 3.1. **MEASURE – Improving the coordinated early warning system along the river basin** (organisational/management/institutional instrument):
- 3.1.1. Definition of the actors and procedures in the early warning system along the river basin.
- 3.2. **MEASURE – Development of civil protection units** (organisational/management/institutional instrument):
- 3.2.1. Commissioners and members of general-purpose civil protection units designated;
 - 3.2.2. Joint training and exercises of general-purpose civil protection units - regional training centre serves all LSGs of the river basin;
 - 3.2.3. Joint training, exercises and simulations of specialised civil protection units – regional training centre serves all LSGs of the river basin;
 - 3.2.4. Involving decision-makers in planning and training of civil protection units;
 - 3.2.5. Procuring joint equipment for specialised civil protection units;
 - 3.2.6. Forming regional warehouses for the equipment of civil protection units.
4. **OBJECTIVE: Preparedness for resilient recovery according to the "build back better" principle⁵**

⁵ Article 10 of the Law on Recovery after Natural and Other Disasters (Official Gazette of RS, no. 112/15)

4.1. **MEASURE – Improving the process of damage and need assessment after natural disaster in accordance with the international PDNA methodology** (information/educational instrument):

4.1.1. Joint training for the appointed members of local damage assessment commissions

7. Assessment of the Impacts of Measures on Individuals and Legal Entities

A joint, universal social and economic impact analysis may be carried out for all measures of this Programme, environmental impact assessment, as well as a management impact assessment, with special focus of the impact of measures on:

- *Poverty;*
- *Gender equality;*
- *Small and medium-sized enterprises (SMEs).*

NATURAL DISASTER RISK REDUCTION MEASURES	
Social impact assessment	Positive impacts on vulnerable population groups and on safety in different regions
Economic impact assessment	Positive impacts on competitiveness
Management impact assessment	Minor administrative efforts needed
Environmental impact assessment	Through flooding prevention – positive impacts on the quality of water, land, natural resources, ecosystem, population and health, use of land, recreation areas, etc.
Poverty impact assessment	Positive impacts on vulnerable population groups, by increasing safety
Gender equality impact assessment	Positive impacts on gender equality through encouraging the activities of women in the work of, for example, volunteer fire fighter units
SME impact assessment	Positive impacts on competitiveness
Budget impact assessment / fiscal impacts	From the existing budget allocations and external funding sources; no need for introduction of new or increased charges / tariffs

8. Identifying Mechanisms for Implementing the Programme Measures

The following have been defined for all measures, activities and projects of this Programme:

- The **institution** responsible for the implementation of each specific measure, activity and/or project, i.e. the institution that has predominant responsibility in the implementation of that measure or is designated as the coordinator of the implementation of the measure (lead for the measure), if the measure implementation is the responsibility of several institutions; all other institutions participating in the measure implementation specified;
- **Estimate of the required funding and other material resources necessary for the implementation;**
- Information or proposals on the method of procurement, i.e. the **sources of funding** for the implementation of the measures;

- **Schedule** for the implementation of the measures;
- **Performance indicators at the level of measures**, with baseline values, target values and verification sources.

Considering the level of detail in the development of measures within the Programme, **preparation of an Action Plan for this Programme has not been envisaged.**

Identifying the mechanisms for implementing the Programme measures

OBJECTIVE 1					Final outcome indicators	Values: baseline and target	Verification sources	Assumptions and potential risks		
1. Institution strengthening, more efficient implementation of law and cooperation improvement					Joint Service established; Aligned Vulnerability Assessments of LSGs in the river basin adopted	BV: 0, TV: 1; BV: 0, TV: 5	Agreement / Founding Act, Financial Plan, Financial Report; SEM approvals.	Majority of the LSGs that signed the Cooperation Protocol are expected to join a more formal type of association through a joint intermunicipal agreement.		
MEASURE 1.1	ACTIVITY / PROJECT	Responsible institution	Partner institution(s)	Implementation deadline	Output indicators	Values: baseline and target	Verification sources	Estimated funds		
								LSG budget	Donors	Required funds
1.1. Aligning local documents with national regulations, international frameworks and mutually	1.1.1. Signing the Western Morava River Basin Agreement	Associated LSGs of the river basin	MPALSG, SCTM, UNDP	2019	Joint Service established;	BV: 0, TV: 1;	Agreement / Founding Act, Financial Plan, Financial Report;	No additional funds are necessary	Technical support: SCTM and UNDP	
	1.1.2. Creation and adequate resourcing of the Joint Service (staff, equipment)	Associated LSGs of the river basin	SCTM, UNDP	2020	Number of employed and trained persons;	BV: 0, TV: 30;				
	1.1.3. Preparing the River Basin Vulnerability Assessment and the River Basin Protection and Rescue Plan (PRP)	Associated LSGs of the river basin	PIMO, WB, MoI - SEM		Joint documents prepared;	BV: 0, TV: 2;	Documents published;		WB grant secured	
	1.1.4. Preparing local documents stipulated by law	Kraljevo, Čačak, Užice, Kruševac, Novi Pazar	MoI - SEM	2021	Aligned Vulnerability Assessments of LSGs in the river basin adopted;	BV: 0, BV: 0,	SEM approvals;			

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MEASURE 1.2	ACTIVITY / PROJECT	Responsible institution	Partner institution(s)	Implementation deadline	Output indicators	Values: baseline and target	Verification sources	Estimated funds		
	1.1.5. Preparing the River Basin Risk Reduction Plan	Associated LSGs of the river basin	PIMO, MoI - SEM, UNDP, FAO	2021	Plan adopted.	TV: 1.	SEM approval.			
1.2. Partnership strengthening and awareness raising	1.2.1. All institutions of significance at the local level within the river basin clearly indicated, including the private sector	Associated LSGs of the river basin	MPALSG, SCTM, UNDP, Chamber of Commerce ...	2019	Qualified legal entities designated;	BV: ..., TV: ...;	Decisions on designating qualified legal entities of importance for protection and rescue;			
	1.2.2. Organisation of joint projects and/or campaigns (e.g. volunteer river basin cleaning campaigns) with defined partner civil society organisations (CSOs);	Associated LSGs of the river basin	Red Cross, Mountain Rescue Service, ARS, Volunteers, volunteer fire fighting units, speleologists, divers, kayakers, paragliders, amateur radio operators, nature conservationists, scouts, youth organisations, cooperatives, etc.	2019, 2020, 2021	Number of volunteer river basin cleaning campaigns Number of organised new projects; Number of trained representatives of qualified legal entities;	BV: 2, TV: 5; BV: 0, TV: 3; BV: ..., TV: ...;	Reports, photographs and similar Reports, photographs and similar Reports, photographs, participant lists etc.			
	1.2.3. All institutions of significance, including CSOs, are trained and	Associated LSGs of the river basin		2020	Number of meetings /	BV: 1,	Media announcements			

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	equipped for adequate response				competitions / camps etc. organised with scientific-research organisations;	TV: 4; BV: 0, TV: 8;	nts, competition submissions and similar Public review reports, promotion materials and similar			
	1.2.4. Cooperation with educational-scientific institutions	Associated LSGs of the river basin	Schools, universities, institutes, institutions, technological parks, Ministry of Education, CSOs, etc.	2019, 2020, 2021.	Number of campaigns and meetings held as part of public reviews					
	1.2.5. Citizen awareness-raising campaigns about disaster risks, as well as involving interested public in the Vulnerability Assessment and PRP preparation processes	Associated LSGs of the river basin	CSOs	2019, 2020, 2021						
OBJECTIVE 2					Final outcome indicators	Values: baseline and target	Verification sources	Assumptions and potential risks		
2. Adequate disaster risk identification and monitoring					Georeferenced hazard mapping in the LSGs of the Western Morava river basin established	BV: 1, TV: 15.	Google hazard maps published and available	The aligned presentation of hazards in the whole Western Morava river basin may be difficult due to the lack of technical capacities; donor support is expected, if needed.		
MEASURE 2.1	ACTIVITY / PROJECT	Responsible institution	Partner institution(s)	Implementation deadline	Output indicators	Values: baseline and target	Verification sources	Estimated funds		
2.1. Spatial presentation of hazards	2.1.1. Preparing a joint Google hazard map at the river basin level	Associated LSGs of the river basin	SCTM	2020	Joint Google map prepared	BV: 0, TV: 1;	Agreement / Founding Act,			

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	2.1.2. Training for hazard mapping and information updating	Associated LSGs of the river basin	SCTM	2019, 2020, 2021.	and published; Number of trained persons;	BV: 0, TV: 30;	Financial Plan, Financial Report;			
-										
3. Improving the early warning system and increasing the preparedness for disasters					Civil protection set up in line with the risks in the river basin – general-purpose and specialised civil protection units formed, trained and equipped	BV: ..., TV:		There are institutional challenges to establishing a single early warning system in the upper and lower Western Morava, which would serve citizens and businesses.		
MEASURE 3.1	ACTIVITY / PROJECT	Responsible institution	Partner institution(s)	Implementation deadline	Output indicators	Values: baseline and target	Verification sources	Estimated funds		
3.1. Improving the coordinated early warning system along the river basin	3.1.1. Defining the actors and procedures in the early warning system along the river basin up to the level of citizens	Associated LSGs of the river basin	SCTM, MPALSG, UNDP, PIMO, MoI - SEM. FAO, CSOs, universities, schools, institutes, etc.	2020	Number of defined and published procedures;	BV: 1, TV:	Decisions of LSGs			
MEASURE 3.2	ACTIVITY / PROJECT	Responsible institution	Partner institution(s)	Implementation deadline	Output indicators	Values: baseline and target	Verification sources	Estimated funds		
3.2. Developing civil	3.2.1. Commissioners and members of general-	Associated LSGs of the river basin	SCTM, MPALSG, UNDP,	2019	General-purpose CP units formed;	BV: ..., TV: ...;	Decisions on forming CP units;			

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protection units	purpose civil protection units designated		PIMO, MoI - SEM. FAO...							
	3.2.2. Joint training and exercises of general-purpose civil protection units - regional training centre serves all LSGs of the river basin	Associated LSGs of the river basin		2019, 2020, 2021	Number of trained general-purpose CP units;	BV: ..., TV: ...;	Reports, photographs, participant lists and similar			
	3.2.3. Joint training, exercises and simulations of specialised civil protection units;	Associated LSGs of the river basin		2019, 2020, 2021	Number of trained specialised CP units;	BV: ..., TV: ...;				
	3.2.4. Involving decision-makers in planning and training of civil protection units;	Associated LSGs of the river basin		2019, 2020, 2021	Number of trained decision-makers;	BV: 0, TV: 5;				
	3.2.5. Procuring joint equipment for specialised civil protection units;	Associated LSGs of the river basin		2021	Number of procured...	BV: ..., TV: ...;				
	3.2.6. Forming regional warehouses for the equipment of civil protection units	Associated LSGs of the river basin	MPALSG, MoF, Red Cross	2021		BV: ..., TV: ...;				
OBJECTIVE 4					Final outcome indicators	Values: baseline and target		Verification sources	Assumptions and potential risks	
4. Preparedness for resilient recovery according to the "build back better" principle					Capacities for post-disaster damage, loss and need assessment improved – number of trained assessors or	BV: 1, TV: 15.	Training and exam certificates	Knowledge about the PDNA methodology is expected to be transferred according to the ToT principle, i.e. that the number of trained experts in the associated LSGs will exceed the number of the persons trained in initial training sessions by several times.		

					commission members					
MEASURE 4.1	ACTIVITY / PROJECT	Responsible institution	Partner institution(s)	Implementation deadline	Output indicators	Values: baseline and target	Verification sources	Estimated funds		
4.1. Improving the process of damage and need assessment after natural disaster in accordance with the international PDNA methodology	4.1.1. Joint training for the appointed members of local damage assessment commissions	Associated LSGs of the river basin	SCTM, PIMO, MPALSG, UNDP, FAO	2020	Number of trained persons	BV: 0, TV: 15.	Reports, photographs, participant lists and similar			

9. Determining the Method of Monitoring and Assessing the Achieved Results

Monitoring the achieved results is done annually, in order to include amendments to the existing Programme in the course of its implementation, if necessary.

The assessment of the achieved results is carried out based on the efficiency of the Programme implementation, i.e. based on the achieved values of the previously identified output indicators for specific measures, projects and/or activities, all on the basis of defined result verification methods, i.e. based on programmed information sources. The assessment of the achieved results will be carried out after the expiry of the period for which this Programme is adopted, i.e. in 2022.

10. Determining the Result Reporting Method

The monitoring and assessment of the achieved results will be carried out by the entity adopting this document, i.e. the Technical Team of River Basin Coordinators, considering that this document does not represent a legal obligation, but a pioneering endeavour in the area of disaster risk reduction.

The Technical Team will inform the heads of the city or municipal administrations of each LSG in the river basin, as well as its partners from the central government level, national associations and international organisations, about the monitoring and assessment of the achieved results of this Programme, in the form of a written report, within 30 days after the annual Technical Team meeting.

11. Information about the Results of Conducted Consultations

During the preparation of this Programme, different stakeholders were consulted through the joint Programme Preparation Workshop, held at the Rudno Regional Centre on 28 and 29 May 2018. The workshop was attended by representatives of the local self-governments from the river basin, and representatives of business, civil sector, media as well as the Public Investment Management Office, the Standing Conference of Towns and Municipalities and the United Nations Development Programme. The Participant List of this workshop is presented in the Programme Annex.

12. Information about the Regulations that Should Be Adopted or Amended in Order to Implement the Measures of this Programme

Initiatives of local disaster risk reduction experts have already made a significant contribution to the amendments to umbrella regulations such as the Amendments to the Law on Local Self-Government in June 2018, and establishment of new practices, such as signing intermunicipal protocols and agreements. This trend is expected to continue in the future.

Implementation of the measures of this Programme is expected to be facilitated by amendments to the [Programme Budgeting Instruction](#)⁶ for local self-governments, which stipulates in Annex 1 the application of the list of predefined sectors. Currently, Sector 14 *Public Security* also includes emergency management, but it would be useful to extend the description of this sector to preventive, proactive measures by adding the “and disaster risk reduction” phrase.

⁶ Retrieved from: <http://www.skgo.org/storage/app/media/uploaded-files/Uputstvo%20za%20pripremu%20programskog%20budzeta%20oktobar%202017.pdf> on 10 April 2018.

In addition, the *Programme Budgeting Instruction* stipulates in Annex 5 the application of the list of uniform programmes and programme activities. In such a framework, 17 standard programmes are recognised, but disaster risk reduction is not recognised in any of these programmes. Therefore, the measures in this area are implemented as part of Programme 15 General Local Self-Government Services, and, for example, programme activities PA 0001 – Operation of Local Self-Government and Urban Municipalities or PA 0014 – Emergency Management are used.

It would be useful to improve this structure of predefined programmes and programme activities in one of the two ways proposed below:

1. By introducing an additional programme activity in the existing Programme 15, which would relate to preventive measures, i.e. disaster risk reduction, or
2. By introducing a new Programme that would also include preventive measures of disaster risk reduction and emergency management as well as post-disaster recovery.