



20th Road Safety Technical Committee and,
10th Western Balkans Road Safety Observatory meeting

Road Safety within the Local Roads Connectivity Project (LRCP)

How is road safety addressed at local level?

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Local Roads Connectivity Project



TOWARDS THE FUTURE
with efficient transport and safe roads

- Supported by a EUR 107 million loan from the International Bank for Reconstruction and Development – World Bank
- EUR 70 million to finance infrastructure investments in municipal roads and streets including related consultative and preparatory processes
- Law on ratification of loan agreement for financing of the Local Roads Connectivity Project (Official Gazette No. 261/2019 and No. 150/22)
- Implementing authority – Ministry of Transport
- Project Implementation Unit (PIU)
- Project duration: November 2019 – December 2024 (extended to September 2026)

Local Roads Connectivity Project



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- Project Development Objectives (PDO):
 - to improve government capacity to manage local roads and
 - to improve access to markets and services.
- PDO – Indicators:
 - number of markets and services connected by improved safe and resilient local roads;
 - percentage of project beneficiaries (gender disaggregated) expressing satisfaction with the project roads;
 - municipalities utilizing simple asset management methods developed under the project and
 - national policy adopted for local roads.

Local Roads Connectivity Project



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- Project components

Component 1: Capacity Enhancement

- Subcomponent 1.1: Strengthening Municipalities' Planning and Implementation Capacity
- Subcomponent 1.2: Capacity Support to Ministry of Transport

Component 2: Rehabilitation of Local Roads and Community Facilities

- Subcomponent 2.1: Road Rehabilitation and Improvement
- Subcomponent 2.2: Community-driven Infrastructure Pilot

Component 3: Project Implementation Support

Component 4: Contingency Emergency Response Component (CERC)

Local Roads Connectivity Project



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- Project activities



Civil works for improvement
of local road infrastructure



Supplemental works for
improvement of the
community driven
infrastructure



Multi Annual Investments and
Maintenance Program



Local Roads Management



Road Safety Management
Capacity Review



Road safety audit of local
road infrastructure projects



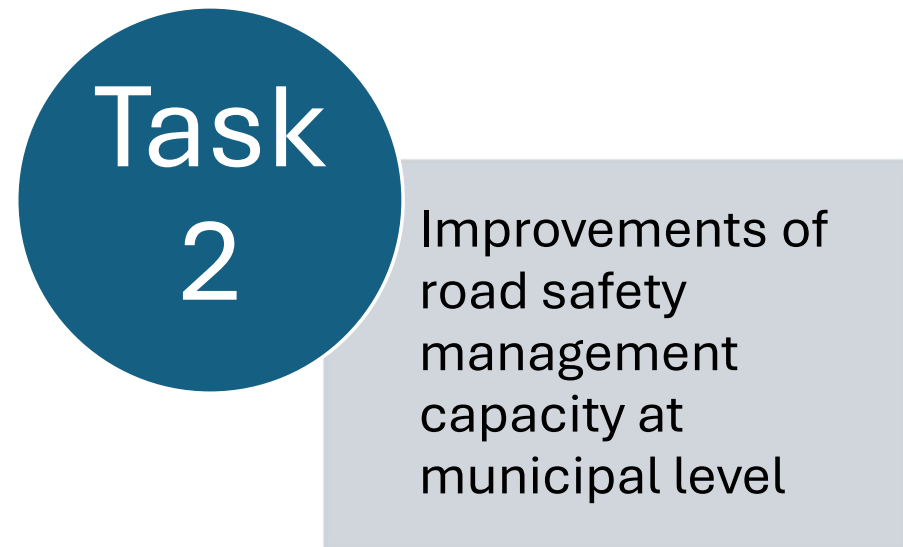
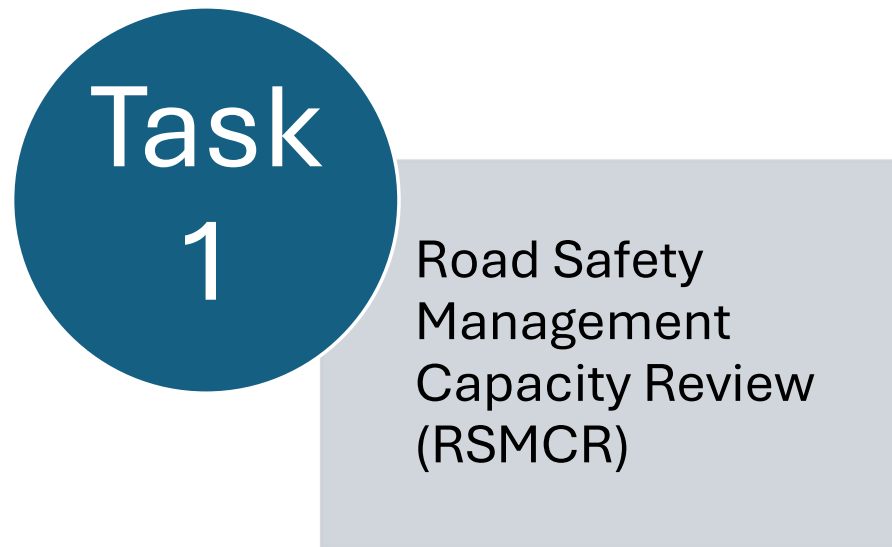
Local Roads Resilience



Urban Mobility Planning

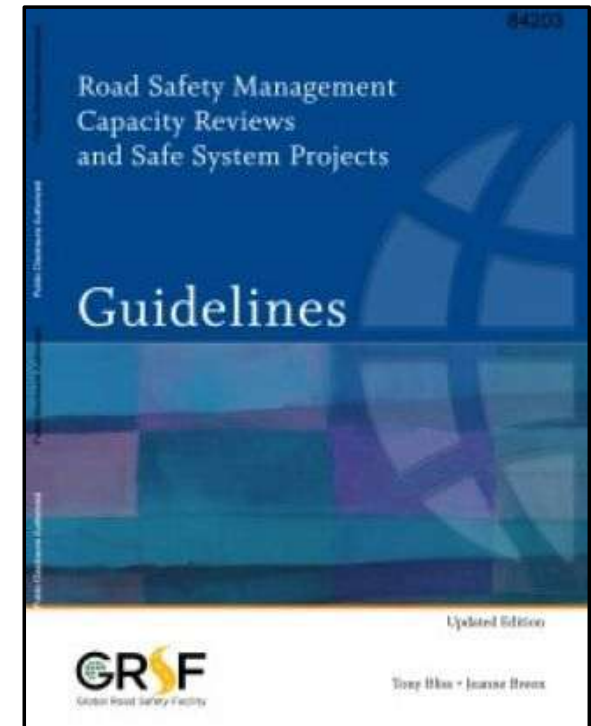
Road Safety Management Capacity Review and Improvements of Road Safety at Municipal Level

- Scope of services



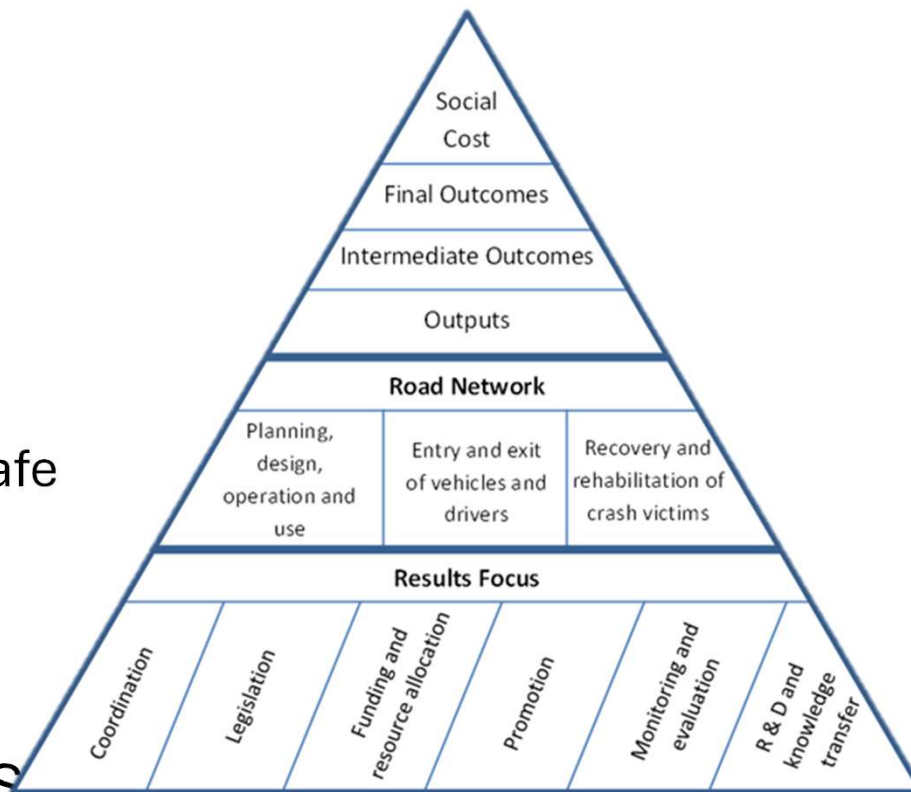
Task 1: Road Safety Management Capacity Review (RSMCR)

- Objective – Assessing and strengthening country road safety management capacity
- Central issue – how to accelerate the necessary process of shifting from weak to strong institutional management capacity to govern the production of improved road safety results
- Based on the World Bank – Global Road Safety Facility`s Guidelines on Road Safety Management Capacity Review and Safe System Projects



Task 1: Road Safety Management Capacity Review (RSMCR)

- Capacity Review Process:
 - Set objective and prepare for review
 - Appraise results focus at system level interventions level and institutional management functions level
 - Assess lead agency role and identify capacity strengthening priorities
 - Specify investment strategy and identify Safe System implementation projects
 - Confirm review findings at high-level workshop and Finalize review report
- Project Steering Committee (MoT, MoI, MoE, MoES, MoF, MoH, ZELS and RCRTS,
- 52 consulted stakeholders



Task 2: Improvements of road safety management capacity at municipal level

- Objective – Institutional reforms and capacity building

1

Guidelines for institutional reforms for improvement of road safety management at local level

2

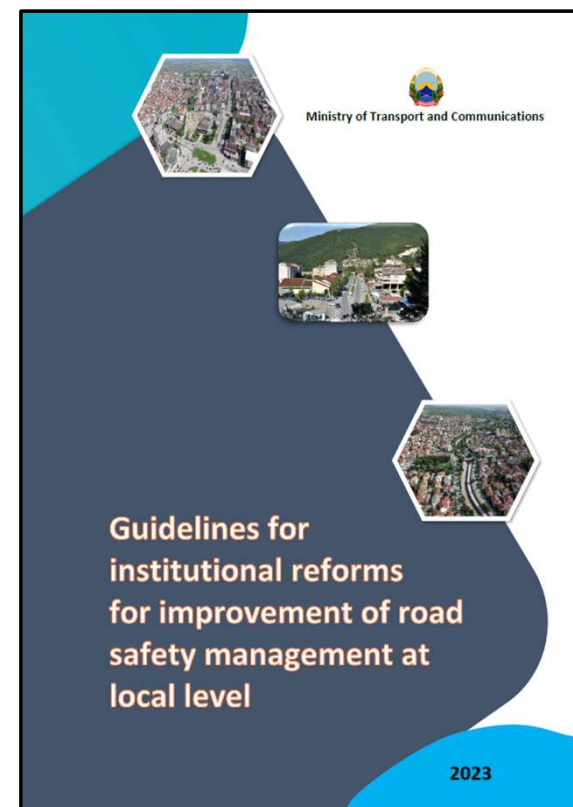
Implementation of institutional reforms in 5 municipalities

3

Training of the municipal staff for implementation of the institutional reforms at local level

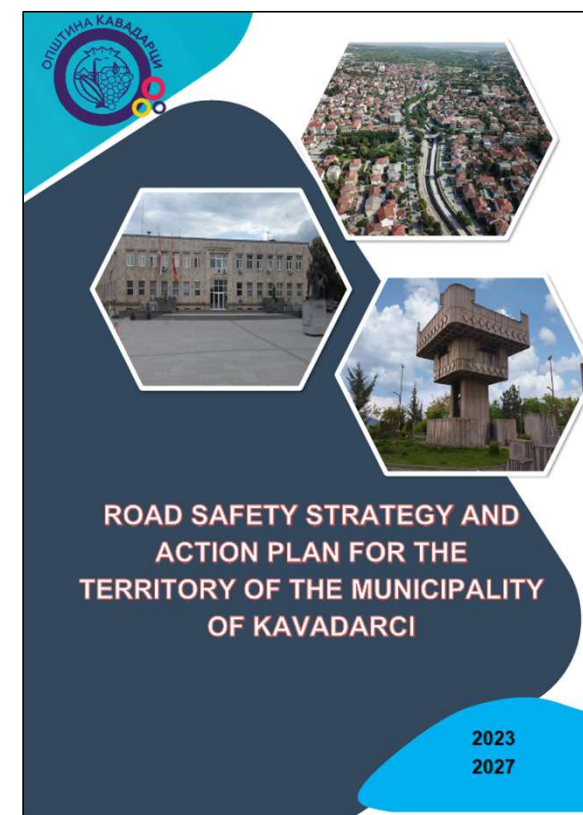
Task 2 | Activity 1: Guidelines for institutional reforms for improvement of RSM at local level

- Content:
 - Key results of the RSMCR at local level
 - Governance framework for Road Safety Management at local level
 - Establishment of Local Road Traffic Safety Bodies
 - Development of local strategic road safety documents
 - Typical measures for improving of local road safety
 - Annexes: Templates for establishing and working of the Local Road Safety Bodies



Task 2: Activity 2: Implementation of institutional reforms at local level

- Establishing the local road safety body
- Preparation of local road safety strategy and action plan
- 5 LSGUs: Skopje, Tetovo, Kavadarci, Delchevo and Makedonski Brod
- Kochani – developed road safety strategy and action plan on its own initiative encouraged by the activities of task 2



Task 2 | Activity 3: Training of the municipal staff for implementation of the institutional reforms

- 5-day training distributed in 3 sessions
- Topics:
 - road safety basics and road safety trends
 - road safety organizational measures at local level
 - establishing local road safety bodies
 - development of strategies and action plans in road safety
 - data collection, monitoring and publishing
 - road infrastructure safety management
 - special treatments of the road infrastructure
- 68 participants – 53 certificates earned



Road safety audit, guidelines and training of municipal staff and children`s traffic safety

- Scope of services

Task 1	Task 2	Task 3	Task 4
<ul style="list-style-type: none">• Road safety audit (RSA) of selected local road infrastructure projects within LRCP	<ul style="list-style-type: none">• Guidelines for Local Road Infrastructure Safety Management (LRISM)	<ul style="list-style-type: none">• Training on Local Road Infrastructure Safety Management (LRISM) of municipal staff	<ul style="list-style-type: none">• Improvement of children`s traffic safety

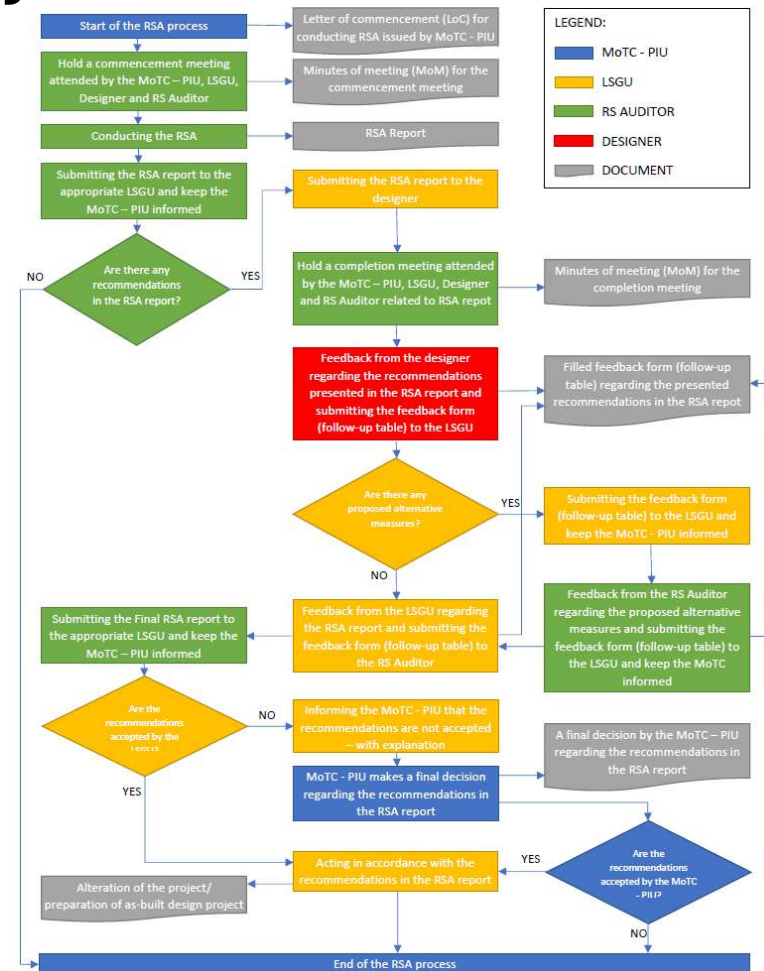
Task 1: RSA of selected local road infrastructure projects within LRCP

- Objective – Proactive safety check and examination of the design features of local road infrastructure projects
- Conducting RSA in Detailed design stage, pre-opening stage and post-opening (early operation) stage of the selected road infrastructure projects

Road safety audit (RSA) stages	Approximate length of local roads and streets (km)
Detailed design	100 ($\pm 5\%$)
Pre-opening	100 ($\pm 5\%$)
Post-opening	60 ($\pm 5\%$)
Total	260 ($\pm 5\%$)

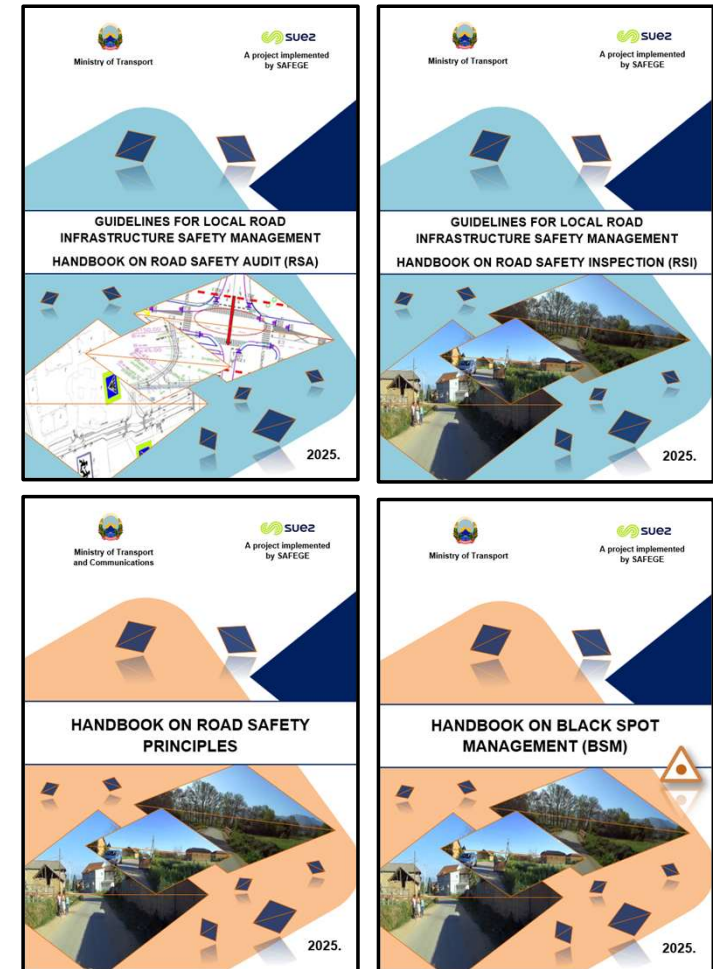
Task 1: Road safety audit (RSA) of selected local road infrastructure projects within LRCP

- Road safety problems, omissions and deficiencies identified within 8 categories:
 - Road function;
 - Cross section;
 - Alignment;
 - Intersections;
 - Public and private services, service and rest areas, public transport;
 - Vulnerable road user needs;
 - Traffic signage, marking and lighting; and
 - Roadside features and passive safety installations.
- Mainly focused on low-cost and highly effective measures.



Task 2: Guidelines for LRISM

- Objective – Securing best international road safety practices for Local Road Infrastructure Safety Management
- Practical handbook covering the following topics:
 - Road safety principles
 - Road safety audit (RSA)
 - Road safety Inspection (RSI)
 - Road black spot management (BSM)
- Stakeholder consultation (MT, MVR, JPDP, RSBSP, KOAI, TFB, GF, ZSIM, DP and ZELS)



Task 3: Training on LRISM of municipal staff

- Objective – Capacity building of municipalities
- 5-day training distributed in 3 sessions
- Topics:
 - Road safety basics and Safe system approach;
 - Road safety principles and best practices of safe road design;
 - EU directive for Road infrastructure safety management (RSIM) including procedures for Road safety audit (RSA), Road safety Inspection (RSI) and Road black spot management (BSM);
 - Implementation of the results from RSA, RSI and BSM;
 - Procurement and contract management of RSA, RSI and BSM;
 - Basics of economic assessment including traffic accidents costs, accident savings, cost-benefit analysis, prioritization etc.
- 100 participants – 66 certificates earned



Task 4: improvement of children`s traffic safety

- Objective – Improvements of road safety near primary schools
- Activities:
 - Analysis of children`s road safety on school routes and in school zones for 10 selected primary schools and provision of recommendations;
 - Design, conducting and evaluation of 2 Children`s safety awareness campaigns, including production of dissemination material for 10 selected primary schools;
 - Evaluation of the pupils`, teachers` and parents` knowledge related to children`s road safety including the basic rules for safe trip to schools for 10 selected primary schools;
 - Propose an innovative way of using IT potentials to raise road safety awareness;
 - Review of current teaching plans and programs and teaching materials with preparation of a proposal for improvements;
 - Preparation of information packages for parents` education for children`s traffic safety;
 - Preparation of proposals for polygon for children`s traffic safety in the school yards and
 - Providing an online learning platform for individual training of teachers (all grades).

Civil works for improvement of local road infrastructure

- The World bank`s Environmental and Social Framework (ESF) road safety requirements are defined in the Environmental and Social Standard 4 (ESS4):
 - *“10. The Borrower will identify, evaluate and monitor the potential traffic and road safety risks to workers, affected communities and road users throughout the project life-cycle and, where appropriate, will develop measures and plans to address them. The Borrower will incorporate technically and financially feasible road safety measures into the project design to prevent and mitigate potential road safety risks to road users and affected communities”*
 - *“11. Where appropriate, the Borrower will undertake a road safety assessment for each phase of the project, and will monitor incidents and accidents, and prepare regular reports of such monitoring. The Borrower will use the reports to identify negative safety issues, and establish and implement measures to resolve them.”*
 - *“13. For projects that operate construction and other equipment on public roads or where the use of project equipment could have an impact on public roads or other public infrastructure, the Borrower will take appropriate safety measures to avoid the occurrence of incidents and injuries to members of the public associated with the operation of such equipment.”*

Civil works for improvement of local road infrastructure | Planning phase

- RSA of the overall project documentation – ensuring safety is integrated into the design
- Most common deficiencies:

Inappropriate road environment for safe movement of VRU

Inappropriate speed management and missed traffic calming measures

Inappropriate intersection angles

Inappropriate marking of narrow roads, curves and high embankment sections

Inappropriate drainage

Etc.

Civil works for improvement of local road infrastructure | Procurement phase

- Road safety requirements during construction works in the Request for Proposals (RFP) document
 - Preparation of detailed traffic design for temporary traffic management
 - Terms of reference for the preparation of a Traffic management plan
 - Duties and responsibilities of the traffic management and road safety specialist – Key expert to Contractor`s Team
 - On-site operational check of the temporary traffic management and reporting
- Road safety requirements during supervision of construction works in the Request for Proposals (RFP) document
 - Review and approval of the traffic management plan
 - Duties and responsibilities of the traffic management and road safety specialist – Key expert to Supervision`s Team
 - On-site operational Inspection of the temporary traffic management and reporting

Civil works for improvement of local road infrastructure | Construction phase

- Traffic Management Plan (TMP) – Method Statement of the Contractor which describes how the Contractor will manage traffic during construction to address the safety of workers and the local communities
- Main elements: Responsibilities, Construction traffic management plan, Impacts on traffic operations, Conflicts and potential hazards, Work zones, implementation, maintenance and inspection of traffic signalization.

Local Roads Connectivity Project	
Traffic Management Plan	
Contract Title:	
Contract No.:	
Section:	
Chainage:	
Length:	
Contractor: [Full name of the Contractor] [Address, City, Country]	[Logo contractor]
Supervision Consultant: [Full name of the Supervision Consultant] [Address, City, Country]	[Logo Supervision Consultant]
Employer: [Full name of the Employer] [Address, City, Country]	[Logo Employer]

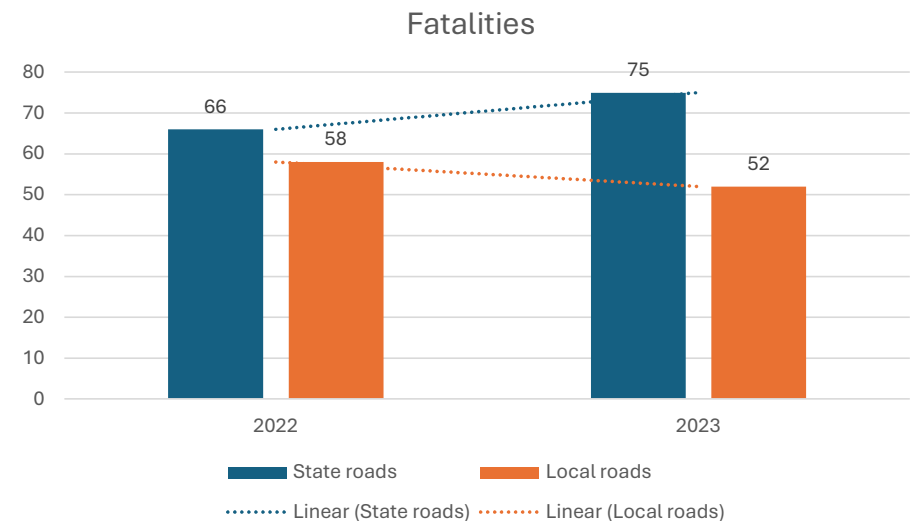
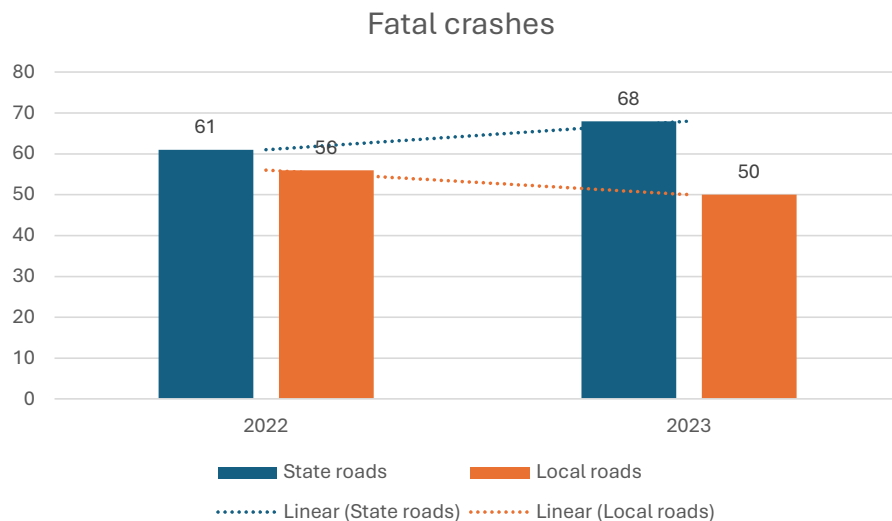
Civil works for improvement of local road infrastructure | Construction phase

- Operational check/Inspection of traffic management during construction
- Checklist for common use by contractor`s and supervision`s road safety engineers
- 45 questions related to: road work zone, road signs, equipment and devices, speed management, manual regulation, work zone access control, road surfaces, conditions for vulnerable users, TM after work hours and during night hours and traffic flow impact.

No.	Control elements	YES	NO	NA	Risk (high, medium, low)	Comment/Undertaken measures
1	Placement of the zone of road works					
1.1	Is the length of the longitudinal protection zone appropriate?					
1.2	Is the width of the side protection zone appropriate?					
1.3	Is the length of the transfer zone appropriate?					
1.4	Are the lengths of the closing/opening inclinations of the traffic lanes appropriate?					
1.5	Are the traffic lanes clearly separated?					
1.6	Are the traffic lanes with appropriate width for the limited driving speed?					
1.7	Are the horizontal radius of the traffic lanes appropriate for the limited driving speed?					
1.8	Are the clarity and stopping lanes appropriate?					
1.9	Is the two-way traffic manner of movement clearly defined and understandable for all participants in the traffic?					
1.10	Are the participants in the traffic requested to perform complicated or unexpected maneuvers?					
2	Traffic signs, equipment and traffic management devices					
2.1	Are all the traffic signs, equipment and devices, including the anticipated road marks from the approved design placed?					
2.2	Are all placed traffic signs, equipment and devices, including the road mark, in accordance with the Rulebook on traffic					

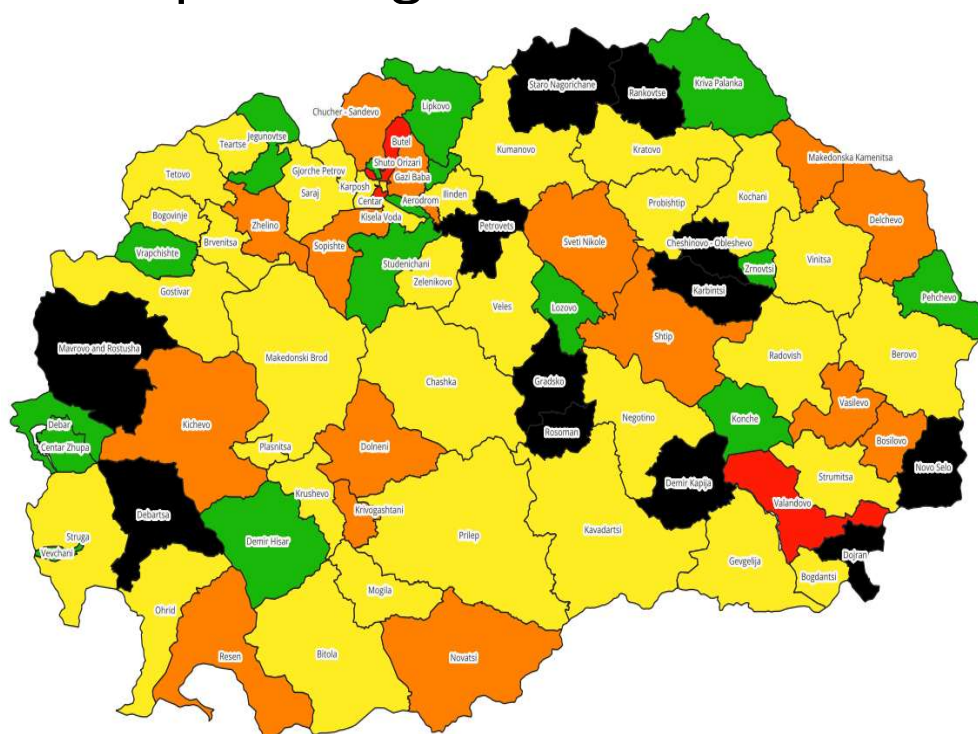
Road Safety on Local roads vs State roads

- Number of fatal road crashes and fatalities on local vs state roads in 2022 and 2023



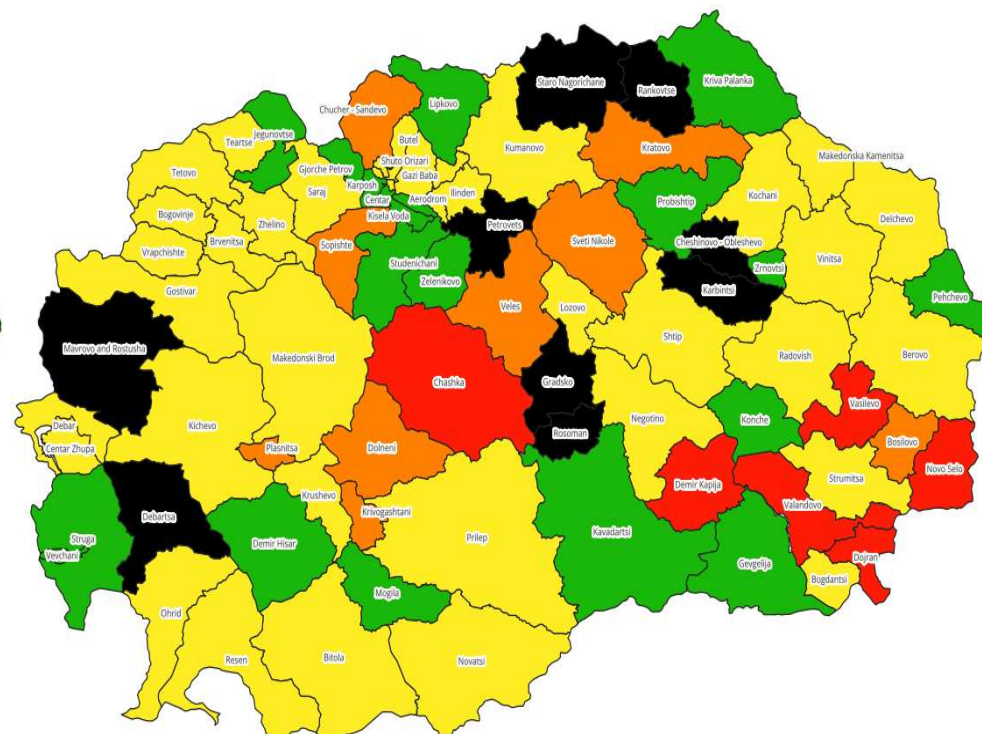
Road crash risk rate per municipality

- Map of weighted road crash risk rate for 2021 - 2023



Weighted public crash risk rate (Causalities/10.000

Legend: ● Very low risk ● Low risk ● Medium risk ● High risk ● Very high risk



Weighted traffic crash risk rate (Causalities/1.000 motor

Thank you for your attention!

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<https://wbprojects-mtc.mk/en/lrcp/>



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