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for

Road Safety Technical Assistance

Capacity Development and Training Implementation Report

D-3.5 Appendix 1

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N°01	26.04.2021	Antonino Tripodi	Dragan Kostadinov Project Director

EXECUTIVE SUMMARY

This document constitutes the outcomes of the Task 3.2 of Component 3 of the Road Safety Technical Assistance (TA) under the Results-Based Road Maintenance and Safety Project (RRSMP).

Among others, Component 3 "**Road Crash Data and Analysis System**" has the objective to train local stakeholders in the use of proactive tools and procedures for road traffic crash data collection and analysis.

A training course in data collection and analysis has been organized via teleconference, on the 17 and 18 March 2021. The training contents have been developed following the results of a stakeholders' need assessment. The main topics are:

1. Road safety national and international framework.
2. Road traffic crash data collection, validation and treatment.
3. Analysis of road traffic crash data, identification of causes.

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LIST OF ABBREVIATIONS AND ACRONYMS

AADT	Average Annual Daily Traffic
ADF	Albanian Development Fund
ANPR	Automated Number Plate Recognition
ARA	Albanian Road Authority
ARC	Albanian Road Code
ARDCS	Albania Road Design and Construction Standards
ARDM	Albanian Road Design Manual
ASP	Albanian State Police
ATC	Automatic Traffic Counts
ATP	Albanian Traffic Police
BSM	Blackspot management
CBMIE	Controlling Body in Ministry of Infrastructures and Energy
CSG	Central Steering Group
DRST	Directorate of Road Safety and Traffic
DRST	Directorate of Road Safety and Traffic
EC	European Commission
EG	Expert Group at the local level
ERA	Emergency Response Albania
EU	European Union
GDRTS	General Directorate of Road Transport Services
GoA	Government of Albania
GRD	General Roads Directorate
IMRSC	Inter-ministerial Road Safety Committee
INSTAT	Institute of Statistics
IoT	Institute of Transports
IPA	Instrument for Pre-Accession Assistance
iRAP	International Road Assessment Program
ITS	Intelligent Traffic System
JV	Joint Venture
M&E	Monitoring and Evaluation
MI	Ministry of Interior
MIE	Ministry of Infrastructure and Energy
NGO	Non-Governmental Organization
NSM	Network Safety Management
PAMECA	Police Assistance Mission of the European Community to Albania
PIARC	World Road Association
QKUM	National Emergency Medical Center
RRMSP	Results-based Road Maintenance and Safety Project
RSA	Road Safety Audit
RSAIU	Road Safety Audit and Inspection Unit
RSI	Road Safety Inspection
RSIA	Road Safety Impact Assessment
RSM	Road Safety Management
RSS	Road Safety Sector

SEETO	South-East Europe Transport Observatory
TA	Technical Assistance
TERN	Trans European Road network
ToR	Terms or Reference
TS	Technical Secretariat
WB	World Bank
WHO	World Health Organization

1. Introduction

1.1 Overall Project Context and Consultative Approach

This document constitutes the outcomes of the Task 3.2 of Component 3 of the Road Safety Technical Assistance (TA) under the Results-Based Road Maintenance and Safety Project (RRSMP).

Among others, Component 3 "**Road Crash Data and Analysis System**" has the objective to:

- *Train agency staff (MoIE and ARA) in diagnostic techniques and system applications, and police staff as well as health staff in basic data entry requirements.*

In particular, the Consultant is required to conduct theoretical and practical training on **road traffic crash data collection and analysis**, coherently with the concept plan for the development of a new national road traffic crash database and information system.

The training topics have been developed based on a stakeholders' need assessment which clearly indicated as, primary need, to focus on crash data analysis. Crash data collection (especially for Traffic Police officers) was also deemed important in view of the implementation of an updated data collection form, compliant with CADaS requirements.

The training course took place via teleconference on 17 and 18 March 2021.

1.2 Training Course Objectives

The course was designed to provide road safety stakeholders (engineers, police officers, etc.) with a theoretical and practical knowledge of the importance of high quality road traffic crash data and of the methods recommended in Albania to collect and analyze these data (based on the agreed concept plan for a new system development). The training topics are especially coherent with the international practices and with the European standards (such as CADaS).

The training course allows for:

- understanding the scale and nature of the road traffic crash problem in Albania and how it compares internationally; road safety responsibilities; key road safety definitions; the principles of the globally endorsed Safe System Approach and accident causation.
- Understanding the importance of road safety within Albania and the global road safety targets.
- Learning how to identify the key data required for evidence-based road safety program planning, implementation, and evaluation.
- Learning How to conduct data analysis, identify key findings and present these impactfully to different audiences.

The course includes theory sessions, best practices and case studies taking into account the local practice.

1.3 Course Application Process

Two main topics have been focused for training purposes:

1. Road traffic data collection.
2. Road traffic data analysis.

The first topic is especially needed for road safety stakeholders (mainly Traffic Police officers) to be trained about the standard data collection form recommended for the next future in Albania (i.e. data collection form

compliant with CADaS standard). Road safety stakeholders should be aware of the changes compared to their current practices and should learn what road traffic crash variables should be collected and how.

The second topic is also related with the recommended changes, but it focuses on how data can be analysed and what kind of analysis can be useful for identifying road safety interventions (i.e. not only for statistical purposes).

1.4 Training Team

The training will be executed by **Dr Antonino Tripodi**, Civil engineer with a PhD in Transport Systems, who has fifteen years of professional experience in transport systems. In the past decade, he has undertaken national and international projects specializing in sustainable mobility and road safety, focusing on road crash databases and road crash analysis.

2. Training Course Content

The course is articulated over one day and three modules. The Training Course program is as follows.

	TOPIC
Day 1	
	Introduction and opening remarks
	Module 1: Road safety national and international framework *Presentation of road safety trends in terms of number of collisions and casualties. Explanation of the importance of data collection for evidence-based selection of strategies and interventions* • National statistics and comparison with international statistics • The Safe System Approach and critical significance of data • Role of road crash data in road safety management • Benefits and requirements of road crash data: the importance of evidence base analysis
Day 2	
	Exercise 1 – Road traffic crash data collection, validation and treatment *Practical session focused on methodologies for collecting road crash data and storing the information.* • Simulation of road crash data collection using CADaS standard
	Module 2 – Analysis of road traffic crash data, identification of causes *Session focused on the analysis of road crash data. How to perform statistical analysis of crash data and how to identify main causes of crashes* • Definition of main road safety statistics • Use of risk exposure and KPIs • Selection and analysis of single road crash elements • Analysis of multiple road crash elements • Identification of main risk factors • Identification of road traffic crash causes • Example of data analysis and causes identification, and discussion with participants

The training material (slides, exercise material) is presented in Annexes.

3. Conclusions

The training on road traffic crash data collection and analysis provided additional opportunities to verify with the Albanian stakeholders the coherence of the methodologies and tools recommended through the study for the country needs. For instance, suggestions on how to improve the data collection forms for police forces and health services were assessed.

Annex A – Training slides

Annex B – Example of data collection form

A - CRASH RELATED INFORMATION

Information about Officer compiling the form	
Name and Surname	
Designation	
Police station of	
Service no	
Signature	

A1 - Crash ID	
A2 - Date	
A3 - Time	
A4 - NUTS	

A5 - Weather conditions	1	2	3	4	5	6	7	99
A6 - Light conditions	1	2	3	4	5	6	7	99
A7 - Crash type	1	2	3	4	5	6	7	
	1	2	3	4	5	6	99	

R - ROAD RELATED INFORMATION

R1 - Location Latitude						
R2 - Location Longitud						
R3 - Road code						
R4 - Fonct. class 1st	1	2	3	4	5	99
R5 - Fonct. class 2nd	1	2	3	4	5	99

R6 - Speed limit 1st			
R7 - Speed limit 2nd			
R8 - Motorway	1	2	99
R9 - Urban area	1	2	99
R16 - Work related	1	2	99

R10 - Junction	0	1	2	3	4	5	6	7	99	51
R11 - Surface conditions	1	2	3	4	5	6	99			
R12 - Carriageway type	1	2	3	4	99					
R13 - Number of lanes		99								
R14 - Tunnel	1	2	99							
R15 - Bridge	1	2	99							

U - VEHICLE RELATED INFORMATION [VEH 1]

U1 - Vehicle ID								
U2 - Vehicle type	1	2	3	4	5	6	7	8
	9	10	11	12	13	14	15	16
	19	20	99	51	52	53		

U3 - Special function	0	1	2	3	4	5	6
	7	8	9	10	99	52	
U4 - Trailer	0	1	2	3	99		
U5 - Engine power							
U6 - Vehicle make							
U10 - Hit&run	0	1	2	99			

U7 - Vehicle model												
U8 - Registration year												
U9 - Manoeuvre	0	1	2	3	4	5	6	7	8	9	10	11	12
	13	14	15	16	17	18	19	20	21	22	23	24	25
	26	27	28	51	52	53	54	55	56	57	98	99	
U11 - Country												

U - VEHICLE RELATED INFORMATION [VEH 2]

U1 - Vehicle ID								
U2 - Vehicle type	1	2	3	4	5	6	7	8
	9	10	11	12	13	14	15	16
	19	20	99	51	52	53		

U3 - Special function	0	1	2	3	4	5	6
	7	8	9	10	99	52	
U4 - Trailer	0	1	2	3	99		
U5 - Engine power							
U6 - Vehicle make							
U10 - Hit&run	0	1	2	99			

U7 - Vehicle model													
U8 - Registration year													
U9 - Manoeuvre	0	1	2	3	4	5	6	7	8	9	10	11	12
	13	14	15	16	17	18	19	20	21	22	23	24	25
	26	27	28	51	52	53	54	55	56	57	98	99	
U11 - Country													

U - VEHICLE RELATED INFORMATION [VEH 3]

U1 - Vehicle ID								
U2 - Vehicle type	1	2	3	4	5	6	7	8
	9	10	11	12	13	14	15	16
	19	20	99	51	52	53		

U3 - Special function	0	1	2	3	4	5	6
	7	8	9	10	99	52	
U4 - Trailer	0	1	2	3	99		
U5 - Engine power							
U6 - Vehicle make							
U10 - Hit&run	0	1	2	99			

U7 - Vehicle model													
U8 - Registration year													
U9 - Manoeuvre	0	1	2	3	4	5	6	7	8	9	10	11	12
	13	14	15	16	17	18	19	20	21	22	23	24	25
	26	27	28	51	52	53	54	55	56	57	98	99	
U11 - Country													

PERSON RELATED INFORMATION [PER 1]

P1 - Vehicle ID						
P2 - Person ID						
P4 - Birth date						
P5 - Sex	1	2	99			
P6 - Nationality						
P7 - Injury severity	1	2	3	4	99	51

P8 - Road user type	0	1	2	3	99
P9 - Alcotest	0	1	2	3	99
P10 - Alcotest results	0	1	2	3	99
P3 - Name & Surname					

P11 - License date	1	2	3	4					
	5	6	99	51					
P12 - License validity	0	1	2	3	4	5	6	99	51
P13 - Safety equipment	0	1	2	3	4	5	6		
	7	8	9	99	51	52			
P14 - Seating position	0	1	2	3	4	5	99	51	

PERSON RELATED INFORMATION [PER 2]

P1 - Vehicle ID						
P2 - Person ID						
P4 - Birth date						
P5 - Sex	1	2	99			
P6 - Nationality						
P7 - Injury severity	1	2	3	4	99	51

P8 - Road user type	0	1	2	3	99
P9 - Alcotest	0	1	2	3	99
P10 - Alcotest results	0	1	2	3	99
P3 - Name & Surname					

P11 - License date	1	2	3	4					
	5	6	99	51					
P12 - License validity	0	1	2	3	4	5	6	99	51
P13 - Safety equipment	0	1	2	3	4	5	6		
	7	8	9	99	51	52			
P14 - Seating position	0	1	2	3	4	5	99	51	

PERSON RELATED INFORMATION [PER 3]

P1 - Vehicle ID						
P2 - Person ID						
P4 - Birth date						
P5 - Sex	1	2	99			
P6 - Nationality						
P7 - Injury severity	1	2	3	4	99	51

P8 - Road user type	0	1	2	3	99
P9 - Alcotest	0	1	2	3	99
P10 - Alcotest results	0	1	2	3	99
P3 - Name & Surname					

P11 - License date	1	2	3	4					
	5	6	99	51					
P12 - License validity	0	1	2	3	4	5	6	99	51
P13 - Safety equipment	0	1	2	3	4	5	6		
	7	8	9	99	51	52			
P14 - Seating position	0	1	2	3	4	5	99	51	

LEGEND

C6 - Crash type	1	Crash with pedestrian
	2	Crash with parked vehicle
	3	Crash with fixed obstacle
	4	Non-fixed obstacle
	5	Animal
	6	Single vehicle crash/non-collisior
	7	Crash with two or more vehicles
	8	Other crashes
R1 - Roadway type	1	Motorway / freeway
	2	Express road
	3	Urban road, two way
	4	Urban road, one way
	5	Road outside a built up area
	6	Restricted road
	7	Other
	8	Unknown
R5 - Surface conditions	1	Dry
	2	Slippery
	3	Wet, damp
	4	Flood
	5	Other
	6	Unknown
V9 - Vehicle manoeuvre	1	Reversing
	2	Parked
	3	Entering or leaving a parking posi
	4	Slowing or stopping
	5	Moving off
	6	Waiting to turn
	7	Turning
	8	Changing lane
	9	Avoidance manoeuvre
	10	Overtaking vehicle
	11	Straight forward / normal driving
	12	Other
	13	Unknown
P9 - Safety equipment	1	Seatbelt / Helmet worn
	2	Seatbelt / Helmet not worn
	3	Not applicable
	4	Unknown
V3 - Vehicle type	1	Bicycle
	2	Other non-motor vehicle
	3	2-3 wheel motor vehicle
	4	Passenger car
	5	Bus / Coach / Trolley
	6	Light goods vehicle (<3.5 t)
	7	Heavy Goods vehicle (>3.5 t)
	8	Other motor vehicle
	9	Unknown

C7 - Impact type	1	No impact
	2	Rear end
	3	Head on
	4	Angle – same dir
	5	Angle - opposite dir
	6	Angle - right
	7	Angle - no dir specifie
	8	Side by side - same dir
	9	Side by side - opposite
	10	Rear to side
	11	Rear to rear
R2 - Road functional class	1	Principal arterial
	2	Secondary arterial
	3	Collector
	4	Local
V8 - Vehicle special function	1	No special function
	2	Taxi
	3	Vehicle used as bus
	4	Police / military
	5	Emergency vehicle
	6	Commercial
	7	Unknown
P5 - Sex	1	Male
	2	Female
	3	Unknown
P6 - Road user type	1	Driver / Rider
	2	Passenger / Pillion
	3	Pedestrian
	4	Other
	5	Unknown
P7 - Seating position	1	Front
	2	Rear
	3	Not applicable
	4	Other
	5	Unknown
P10 - Pedestrian manoeuvre	1	Crossing
	2	Walking on carriagewa
	3	Standing on carriagew
	4	Not on carriageway
	5	Other
	6	Unknown

C8 - Weather conditions	1	Clear
	2	Rain
	3	Fog, mist, smok
	4	Sleet, hail
	5	Severe winds
	6	Other
	7	Unknown
C9 - Light conditions	1	Daylight
	2	Twilight
	3	Darkness
	4	Dark - street lights unl
	5	Dark - street lights lit
	6	Unknown
R6 - Junction	1	At-grade, crossroad
	2	At-grade, roundabout
	3	At-grade, T or staggered junct
	4	At-grade, multiple junction
	5	At-grade, other
	6	Not at grade
	7	Not at junction
	8	Unknown
R7 - Traffic control	1	Authorized person
	2	Stop sign
	3	Give-way sign or markings
	4	Other traffic signs
	5	Automatic traffic signal (working)
	6	Automatic traffic signal (out of orde
	7	Uncontrolled
	8	Other
P8 - Injury severity	1	Fatal injury
	2	Serious / severe injury
	3	Slight / minor injury
	4	No injury
	5	Unknown
P11 - Alcohol use	1	Yes
	2	No
	3	Not applicable
	4	Unknown
P12 - Drug use	1	Yes
	2	No
	3	Not applicable
	4	Unknown