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EXECUTIVE SUMMARY

This document contains the results related to “*Task 1.5.2: Identify internal capacities for R&D in Albania*” included in the *Activity 1.5 - Support the Lead Office on “Research and Development”* from Component 1 of the Road Safety Technical Assistance (TA) under the Results-Based Road Maintenance and Safety Project (RRSMP).

This report has the main aim to identify the internal capacities for R&D in Albania according to a capacity and training needs assessment realized.

The following capacities within the R&D function were assessed:

- Ensuring capacities for road safety research and management.
- Contracting out to road safety research organizations as road safety activity increases.
- Developing road safety research programs and establishing partnerships for that purpose.
- Carrying-out annual review of needs for road safety research programs.
- Assigning specific annual budgets for road safety research.
- Developing means of training and knowledge transfer for R&D.

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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 of Reference
TS	Technical Secretariat
WB	World Bank
WHO	World Health Organization

1. Introduction

The Activity 1.5 – *Support the Lead Office on “Research and Development”* from Component 1 of the Road Safety Technical Assistance (TA) under the Results-Based Road Maintenance and Safety Project (RRMSP) covers the following three tasks:

- Task 1.5.1: Identify key R&D areas to support road safety actions and initiatives;
- Task 1.5.2: Identify internal capacities for R&D in Albania;
- Task 1.5.3: Propose R&D Plan.

This document contains the results related to Task 1.5.2: Identify internal capacities for R&D in Albania.

2. Activity and task objectives

The main aim of the Activity 1.5 is to support the Lead Office on those aspects related to Research and Development (R&D) in Albania.

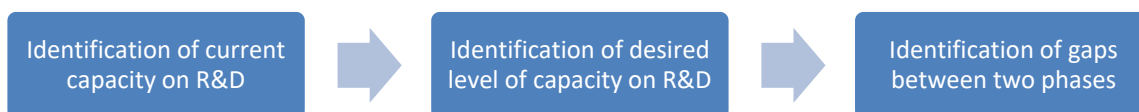
The specific objective of Task 1.5.2 is to identify the internal capacities for R&D in Albania

3. Activity and task outputs

The outputs of Task 1.5.2 cover the capacity and training needs assessment on R&D of main road safety actors closer to this topic.

4. Capacity needs assessment process

The following process has been followed to implement the capacity needs assessment on R&D:



The capacity needs assessment carried out will act as a guide on the actions to be carried out and how to incorporate them in the process to enhance the R&D institutional function which will support the establishment of a sustainable result-based road management system in Albania.

5. Current R&D and knowledge transfer capacities in Albania

The research and development and knowledge dissemination framework on road safety matters in Albania is presently very poor, and its characteristics are the following:

- A dedicated road safety research programme, backed by sustainable funding sources and carried out by dedicated research staff is currently not present in Albania.

- Research, development and knowledge dissemination on road safety issues take place on an ad-hoc basis in Albania. Besides, the few related activities implemented are disconnected, fragmented with major gaps in understanding the multidimensional aspects of road safety.
- Road safety research should be carried out by researchers or professionals trained in research normally working in academic institutions or by some working in ministries and departments. Albania has a lack of human resources and researchers with continuous interest in road safety.
- An institutional mechanism for road safety in general and research in particular is missing in Albania. Research into underlying causes of the road safety problem in the country or research aimed at explaining the development of certain trends or effects of programmes is not usually carried out.
- Human resources in the form of trained manpower to carry out research is limited in Albania as there are no in-country training programmes. Institutions that can conduct interdisciplinary training are also limited.
- Research and projects carried out in Albania remain in the involved institutions. As there are no established clear linkages between them, there is no continuity in work and limited exchange between disciplines.
- Road safety itself does not have dedicated funding in Albania and hence, there are no resources for road safety research.
- Coordination between sectors is crucial for road safety research for exchange of information. In the absence of an operating lead agency, each sector has its minimal independent agenda.

6. Desired R&D and knowledge transfer capacities in Albania

A sustainable R&D and knowledge transfer on road safety should be properly established in Albania in order to ensure a result-based road safety management system.

This will require to implement specific capacities related to the following aspects:

- Ensuring capacities for road safety research and management
- Contracting out to road safety research organizations as road safety activity increases.
- Developing road safety research programs and establishing partnerships for that purpose
- Carrying-out annual review of needs for road safety research programs
- Assigning specific annual budgets for road safety research
- Developing means of training and knowledge transfer for R&D

7. Capacity needs assessment

7.1 Ensuring capacities for road safety research and management

Capacities for road safety research and management in Albania have an important room for improvement, considering that no specific institutions is responsible about it, and just few and isolated R&D and knowledge transfer activities are implemented. Accordingly, and in order to ensure the necessary capacities for road safety research and management it is recommended the following:

- Establishment of a national road safety research institute
- Availability of researchers specialised on road safety
- Definition of a road safety R&D strategy and annual programs

Road safety research institute

In high-income countries road safety performance has been considerably enhanced by the independent contributions made by local research centers which have helped to guide the design and implementation of national strategies that have sustained reductions in road deaths and injuries. Accordingly, the establishment of a dedicated road safety research institute is recommended to ensure R&D and knowledge transfer capacities in Albania.

Its main role will be to promote and to coordinate relevant high quality road safety research, to provide advice on the implementation of research results, and to evaluate implementation outcomes.

The Road Safety Research Institute should be in charge of a wide variety of activities directed at both national and international level, including:

- proposing road safety topics for national research agenda;
- organising seminars and meetings on road safety issues and road safety research;
- identifying opportunities for national and international cooperation in road safety research;
- encouraging the international exchange of junior and senior road safety researchers;
- recommending evidence-based road safety solutions to relevant authorities;
- contributing to expert meetings and conferences, representing the road safety component;
- providing researchers and policy makers with up-to-date (links to) road safety information;

The role of the Road Safety Research Institute can be played by an existing public body, such as the Institute of Transport, by a new department within the Road Safety Sector.

Researchers

Trained and dedicated research staff on road safety is highly necessary in order to be able to develop the actions defined in the R&D programs. They should be the part of the Road Safety Research Institute staff.

The involvement of graduate students to work in approved research proposals can help the creation of a pool of national road safety researchers.

R&D national strategy and annual program

The definition and establishment of a national road safety research strategy accompanied by annual programmes will also ensure R&D capacities.

The strategy should cover all aspects of road safety:

- management: strategy, policy, crash data, monitoring and evaluation of actions;
- infrastructure: audits & inspections, blackspot treatment;
- vehicles: technical inspection, vehicle safety;
- users: road safety perceptions & attitudes: drugs, user behavior, young drivers, cycling, heavy vehicles, school transport safety, fatigue;
- post-crash response: emergency system organization & management;
- speed management: speed setting in urban, semi-urban and rural areas.

The annual programme will be in line with the strategy and also covering R&D and transfer of knowledge actions based on the road safety conditions in the country. These programs aim to provide scientific research

results to decision makers in the relevant authorities for use in the preventive measures and planning to reduce the problem of traffic accidents in Albania.

The following areas should be considered under these annual programs:

- Development of scientific approach for road crash data collection leading to objective analysis to achieve more effective road safety measures.
- In depth analysis of the causes of traffic crashes and traffic fatalities.
- Mapping out traffic crashes across the country to quantify their pattern.
- Road characteristic and traffic operation issues related to traffic incidents.
- Prediction models for the likelihood of traffic crashes on specific road sections.

The strategy and annual program should be defined by the Road Safety Research Institute and approved by the Lead Office and the IMRSC. Strategy and programs should be defined according to the national road safety conditions.

7.2 Contracting out to road safety research organizations as road safety activity increases

The support of external road safety research organisations and/or experts is usually necessary despite of the work of the national Road Safety Research Institute. The national road safety framework covers a wide range of aspects which should be continuously analysed and accommodated to the road safety changing conditions in a country, and for which specific expertise is necessary.

The support of external organisations and/or experts is also essential in order to know about new international best practices and to be supported for their customization to the Albanian context.

It is to note that contracting out road safety research organisations and/or experts requires sufficient budget that should be annually allocated for it, and which presently is not available unless it is considered under specific projects financed by main IFIs. Besides, it is recommended that the Road Safety Research Institute should have the necessary attributions to contract the external support that is needed.

7.3 Developing road safety research programs and establishing partnerships for that purpose

Developing of road safety research programs is necessary to build country capacity in a targeted process that demonstrates when good practice measures are taken road safety performance can be dramatically improved. Unfortunately, this aspect is not currently fulfilled in Albania.

Together with road safety research project, demonstration and pilot programs should be also identified, programmed and conducted. These programs should be focused on all aspects related to road safety, covering the five UN Decade of Actions, such as:

- Institutional factors, e.g. assessment of the institutional coordination; impact of driving rules and regulation on mitigating road accidents; effectiveness of law enforcement in mitigating road crashes and their sequel; relationship between – provision for insurance companies and number of accident, etc.
- Road infrastructure factors, e.g. safety impact of countermeasures usually used in the road network; relationship between safety and road equipment; impact of road characteristics (alignment, pavement, drainage, etc.) in the mitigation of road crashes; etc.
- Vehicle factors, e.g. assessment of technical inspection procedures; impact of vehicle fleet conditions in road crashes, etc.

- Human factors, e.g. assessment of drivers skills, knowledge, and behavior; social and cultural behavior factors fostering unsafe road usage; social impact of traffic incidents and the role of the family; effectiveness of awareness programs, etc.
- Post-crash response factors: injuries handling and transportation; rescuing speeds; effectiveness of available medical services; impact on morbidity and mortality, etc.

Building partnerships with international well-known research centers, such as Swov (The Netherland), Vias (Belgium), IFFSTAR (France), Road Traffic Safety Agency (Serbia), Slovenian Traffic Safety Agency (Slovenia), VTI Swedish National Road and Transport Research Institute, etc. as a way to quickly develop capacity for multi- disciplinary research, and to be also involved in the international road safety community. This will contribute to strength the national capacity building objectives getting new knowledge and skills from them.

7.4 Carrying-out annual review of needs for road safety research programs

The role of focal point developed by the Lead Office set the ideal framework to identify the main road safety aspects to be considered for new research projects. The Lead Office is in charge of crash data analysis and , along with the Central Steering Group, defines and describes the necessary actions and activities to be carried out to successfully achieve the specific road safety goals and objectives set by the IMRSC. Besides, and according to previous recommendations¹, every stakeholder should quarterly inform the Lead Office (IMRSC Technical Secretariat) about the progress of road safety actions and activities that are being implemented, and about those that shall start within the following quarter.

Under this environment an annual revision of the needs in terms of road safety research programs could be easily be implemented together with the Road Safety Research Institute.

7.5 Assigning specific annual budgets for road safety research

Identifying and securing sources of sustainable funding for road safety interventions and activities is one of the first needs that the Government of Albania should do. Some possible funding sources could come from traffic fines, motor vehicle levies, motor vehicle insurance levies, etc.

It is highly important that the assignment of specific annual budgets for road safety interventions, and specifically for research and development activities is set for a proper and sustainable activity. The needs in terms of R&D annual budget should be established in the R&D annual plan.

7.6 Developing means of training and knowledge transfer for R&D

No specific and regular means of transfer knowledge are presently implemented in Albania, so the strengthening of the following type of knowledge transfer activities would be essential:

- Organization of regular dissemination activities through specialized trainings, workshops, seminars and conferences covering all aspects of road safety, and involving all national stakeholders.
- Training of trainers in all aspects of road safety.
- Creation of a continuous forum for knowledge transfer of ideas and results.
- Preparation of guidelines and customization of the existing ones according to the Albanian conditions: road design, road safety audits & inspections, vehicle technical inspection.

¹ View report related to *Task 1.1.2 - Procedures and processes to undertake specific tasks and duties as directed by IMRSC and to report back on related findings and outcomes.*

8. Key stakeholders

Three main actors within the Ministry of Infrastructure and Energy are essential in terms of research and development and knowledge transfer in Albania according to their roles and responsibilities:

- Road Safety Sector, as Road Safety Lead Agency it is the main responsible for management of the institutional function, and among them, the Research and Development function.
- The Institute of Transport, as it is the only organization engaged in research and development in the road sector in Albania.
- Albanian Road Authority, as the structure in charge of the national road network in Albania, responsible for the construction, upgrading, rehabilitation, maintenance and development of the main road network.