




PROJECT IMPLEMENTED BY AN MIT/EP4SA  
FINANCED BY SIDA AND COFINANCED BY WBI

# Road Safety Legislation

Contract No: CS 02  
Results-based Road Maintenance and Safety Project (RRMSP)  
World Bank Loan No. 8489-AL




## Introduction

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## Introduction

ROAD SAFETY LEGISLATION

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## Aim of this training course

- To understand main aspects of the road safety legal framework
- To present the current road safety legal framework in Albania
- To be acquainted of EU road safety legal framework
- To understand how to follow-up and update road safety legislation




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## Training program

**Module 1: Legal instruments in road safety**

- Legal instruments on road safety
- International road safety regulations
- EU road safety legal framework

**Module 2: Albanian road safety legal framework**

- Road safety national legal framework
- Harmonization of Albanian regulation with EU legislation
- Target areas for improvement

**Module 3: Procedures to follow-up and update road safety legislation**

- Legislative process in Albania
- Procedure to follow-up and update road safety legislation




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## Module 1

# LEGAL INSTRUMENTS IN ROAD SAFETY

ROAD SAFETY LEGISLATION




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## Laws and regulations relevant to road safety

- Transport or motor vehicle laws**
  - driving privileges
  - licensing and vehicle registration
  - road signs and signaling
  - driving conduct
  - motor vehicle manufacturing standards
  - commercial driver working hours
- Criminal laws**
  - careless or reckless driving
  - driving under the influence of alcohol or drug
- Insurance laws**
  - drivers' liability
  - compensation of road crash victims
- Constitutional laws**
  - rights of people to health care, including emergency treatment
- Public health laws**
  - post-crash interventions, ranging from access to and provision of care in hospitals to protection of first responders
- Tort laws**
  - determine liability by assigning fault based on driving behaviour

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## Enacting & amending road safety laws

- Traffic statistics**, political will and high-level commitment, public pressure and changes in social norms and values, spur road safety legislation
- Road safety relevant laws **vary from country to country**
- Influenced by various factors**: political will, resource capacity and challenges in changing road user behaviour
- It is important to **understand the context** within which legislative changes can be made

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## Impact of road safety laws

- Comprehensive national road safety laws and regulations are **effective in reducing injuries and fatalities** among all road users
- Laws and regulations can **change** the social meaning attributed to certain **behaviour** and can change individual behaviour (e.g. wearing a seat-belt or refraining from activities such as drink-driving)

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## International road safety regulations

- International regulations serve as benchmarks and can provide a legal framework on which regions and countries can base their own laws**
- United Nations Economic Commission for Europe, Convention on Road Traffic, of 19 September 1949 and 8 November 1968. Geneva; 1968
- United Nations Economic Commission for Europe, Convention on Road Signs and Signals, of 8 November 1968. Geneva; 1968
- United Nations Economic Commission for Europe, Consolidated Resolution on Road Traffic, of 14 August 2009 (ECE/TRANS/WP.1/123). Geneva: Working Party on Road Traffic Safety, 2010.
- United Nations Economic Commission for Europe, European agreement supplementing the 1968 Convention on Road Traffic, of 1 May 1971. Geneva; 1971

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## EU road safety legal framework

- 70 EU policies**
  - Driver license
  - Enforcement in the field of road safety
  - Alcohol, drugs and medicine
  - Professional drivers
    - Training, Working conditions, Tachograph, Check of the working conditions
  - 3rd countries driver attestation
  - Vehicles
    - Type approval, Registrations, Technical control, Front protection of vulnerable users, Safety belts and other restraints systems of vulnerable users, Tires, Daytime running lights, Blind spot mirrors, Conspicuity, Speed limitation devices, Weights and dimensions
- Transport of dangerous goods
  - Weights and dimensions
- Safety requirements for tunnels
- Road infrastructure safety management
- Emergency calls
- Accident data collection

**EU road safety policy aims to provide a general governance framework and challenging objectives which should guide national or local strategies**

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## Module 2

# ALBANIAN ROAD SAFETY LEGAL FRAMEWORK


### ROAD SAFETY LEGISLATION

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## Road safety legal framework in Albania

Albanian road safety laws and regulations address:

- the five main risk factors for road traffic injuries (speed, drink-driving and use of seat-belts, child restraints and motorcycle helmets)
- post-crash care




Source: Global status report on road safety 2018

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## Road safety laws & regulations in Albania

- Laws
- Decisions of the Council of Ministers
- Instructions of the Minister of Transport and Infrastructure (by-laws)



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## Main road safety legislation

Albanian legislation governing road safety and the specific articles regulating driver license and road user behavior have been progressively amended to align them with the EU legislation:

- Law No. 8378, dated 22 July 1998, **"The Road Code of Albania"**
- Decision of the Council of Ministers No. 153, dated 7 April 2000 **"On the approval of the regulation on the implementation of the Road Code of Albania"**

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## Amendments to the Road Code

Law No. 10488, dated 5 December 2011 **"On amendments to Law No. 8378, dated 22 July 1998 - The Road Code in the Republic of Albania"**

Law No. 175, dated 18 December 2014 **"On some changes and amendments to Law No. 8378, dated 22 July 1998 - The Road Code of the Republic of Albania"**

- Introduction of the point system (20 points)
- Revision of the driving school system, their licensing and monitoring
- Strengthening the traffic fine system by increasing the lower and upper limit of fines (art. 121 & 170)
- Revision of art. 184, driving under the influence of alcohol, prohibiting driving after consuming alcohol or under the influence of alcohol
- Increasing the fine when the driver is under the influence of drugs
- Classification/categorization of driving permits, and permit format; training and testing procedures, according to EC Directives (art. 150);
- Additional requirements on issuing driving permits to those with limited health capabilities to drive and medical history for first-time applicants;
- Additional requirements on issuing professional certificates (for transportation of both goods and passengers (art. 115/1).

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## Harmonization of Albanian regulation with EU legislation

- Albania got the status of a candidate country for EU membership in June 2014. This achievement came as a result of Albania's reform efforts in recent years and acknowledgment by the EU of the efforts made and the progress achieved on Albania's road to accession.
- The Stabilization and Association Agreement was signed with Albania in June 2006 and entered into force in April 2009.
- According to Article 18 of protocol 5 of the Agreement (Road Safety): **Albania will harmonize its legislation on road safety, particularly with regard to the transport of dangerous goods, with that of respective EU legislation by the end of the fifth year after the date of entry into force of the Agreement.**
- Albania has **progressed considerably** with the task of harmonizing its road safety legislation with the EU *acquis communautaire* during the last years

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## Assessment of Albanian road safety legislation

- 51/70 EU road safety regulations are already implemented (fully or partially) in the Albanian legal framework
- Aspects **not yet in full compliance** with EU *acquis Communautaire*:
  - Vehicles
    - Registration
    - Front protection of vulnerable users
    - Safety belts and other restraints systems of vulnerable users
    - Tires
    - Daytime running lights
    - Blind spot mirrors
    - Conspicuity
    - Speed limitation devices
    - Weights and dimensions
  - Post-crash response
    - Emergency calls
  - Driver license
    - Driving license
    - Equivalences categories of driving licenses
  - Enforcement in the field of road safety
    - Cross-border exchange of information
  - Alcohol, drugs and medicine
    - Psychoactive substances
  - Third countries driver attestation

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## Accompanying measures

- to put in place **systems to monitor the effectiveness** of laws and regulations at national level (e.g. measurement of law compliance regarding key risk factors)
- to **put in place** all laws, regulations and monitoring and enforcement systems **at the same time**
- to **take into account the Albanian road safety policy framework in other policy fields** of the country, and it should take the objectives of these other policies into account (energy, environment, employment, education, youth, public health, research, innovation and technology, justice, insurance, trade and foreign affairs, etc.)

## Module 3

# PROCEDURES TO FOLLOW-UP AND UPDATE ROAD SAFETY LEGISLATION

ROAD SAFETY LEGISLATION

## Current procedures to update road safety legislation

No specific procedures are presently set to follow-up and update the existing road safety legislation in Albania.

Road safety legislation is punctually updated when any of the following cases arrive:

- Request from a major body, such as the EU - Transposition of EU directives into the national legal framework.
- Identification of safety issues based on regular data analysis – Results from the road crash data analysis carried out by the Police and/or the Lead Office can arise specific safety issues that need to be considered.
- Occurrence of unexpected major road crashes (ex. road crash with an important number of victims) – Existing procedures and legislation are usually revised to avoid the repetition of similar road crashes.

## Legislative process in Albania



## Procedure to follow-up and update road safety legislation

Lead Office should take the lead on the revision, follow-up and update of road safety legislation in Albania & external legal experts must be engaged to support the Lead Office.

Procedures:

1. Regular legislation gap analysis
2. Regular data analysis for the identification of safety issues

## Regular legislation gap analysis

1. Every six (6) months a follow-up and checking of EU and other countries (ex. USA, Australia) road safety legislation shall be implemented by the Lead Office. Desk reviews, online research, workshops, conferences and training courses shall be the main sources of information
2. A gap analysis of the Albanian legislation shall be carried out based on the information collected
3. Amendments/discussion papers to update existing legislation or to enter new legislation shall be suggested and shared with main related road safety stakeholders for revision
4. A draft of the updated legislation shall be prepared by the Lead Office based on the final version of the amendments/discussion papers

## Regular data analysis

1. The Lead Office shall identify every year main road safety issues based on the analysis of road crash data implemented.
2. The existing legislation (laws, bylaws, ministry instructions, road code articles, etc.) related to the road safety issues identified shall be then identify. External legal experts must be engaged to support the Lead Office, if necessary.
3. The efficacy of the existing legislation in respect to the road safety issues identified shall be assessed through meetings with main related road safety stakeholders (ex. Police, Ministry of Justice, etc.) and public consultations with NGOs and civil society.
4. Amendments/discussion papers to update existing legislation or to enter new legislation shall be suggested and shared with main related road safety stakeholders for revision.
5. A draft of the updated/new legislation shall be prepared by the Lead Office based on the final version of the amendments/discussion papers.



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## TIME FOR QUESTIONS & DISCUSSION



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## Funding & Resource Allocation

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## Aim of this training course

- To understand how to set target and plans in road safety
- To define performance indicators
- To understand why road safety funding is necessary
- To understand road safety costs
- To be aware about the main funding sources for road safety
- To understand how to allocate resources



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## Training program

### Module 1: Road safety targets and plans

- Assessment of safety problems
- Setting targets
- Investment plans and implementation
- Safety performance indicators

### Module 2: Road safety funding

- Funding sources

### Module 3: Road safety resource allocation

- Cost-benefit analysis
- Multi-criteria evaluation



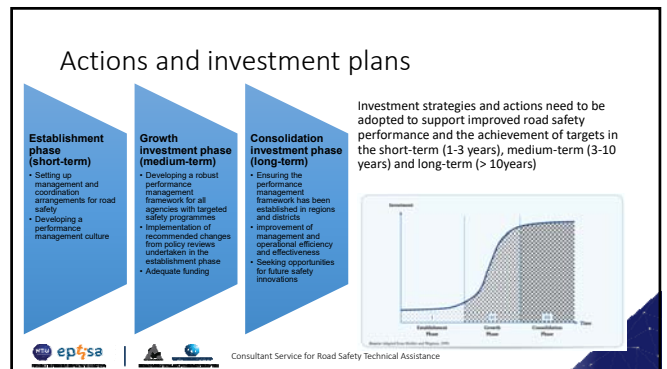
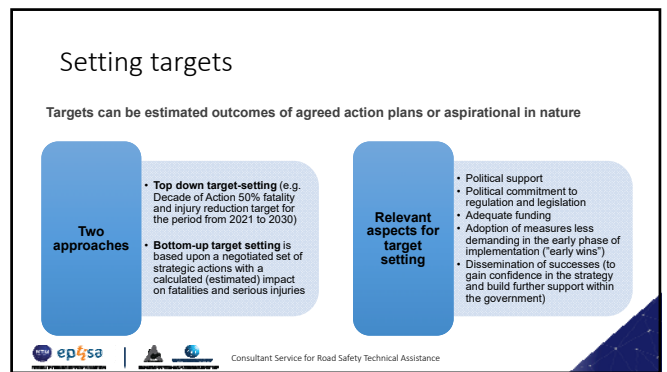
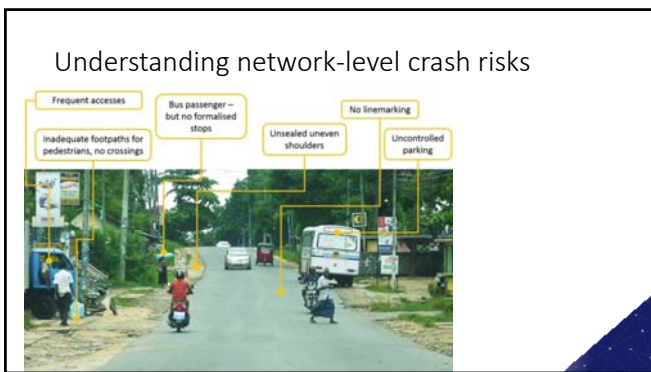
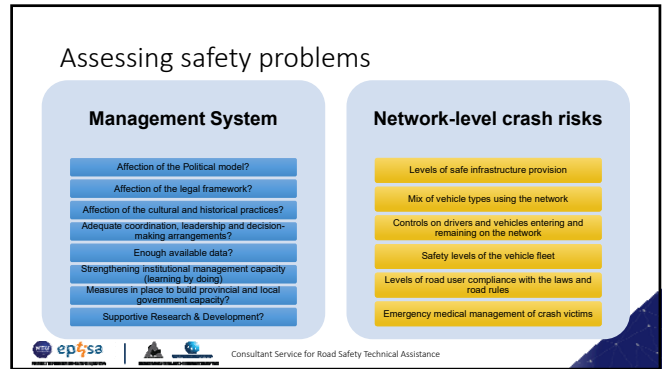
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## Module 1 ROAD SAFETY TARGETS & PLANS

FUNDING AND RESOURCE ALLOCATION




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### Principles of action and investment plans

- Targets should be linked with defined timelines in which they should be achieved
- Adequate funding has to be ensured
- Accountabilities have to be defined
- An effective decision making should be applied and consultation arrangements to support the implementation of measures




### Implementation of interventions

**Establishment phase**

- safer speed
- improved safety of road and roadside infrastructure
- improved seatbelt wearing
- improving safety for vulnerable road users (pedestrians, two-wheeler riders, cyclists)
- reduced drink driving
- improved medical management after crashes occur
- safer heavy vehicles (trucks and buses)
- safer heavy vehicle driver compliance with road rules
- further two-wheeler measures (helmet wearing and separate roadside lanes)

**Growth & consolidation phase**


- road safety engineering interventions
- improved road user behaviour through legislation, enforcement, and licensing
- improved vehicle standards
- improved post-crash care



### Review of performance

Revision of performance outcomes is needed to determine the success of a program or an intervention


Category	Examples of possible measures
Risk exposure	Traffic volumes by vehicle and road user type
Fatal safety outcomes	Deaths and injuries recorded by Police Hospital data for road deaths and injuries recorded by Health authorities
Intermediate safety outcomes	Other sources of death and injury registration Average vehicle speeds by road type, season and winter Front and back seat safety belt wearing rates, driver and passengers Motor cycle helmet wearing rates, driver and pillion Drug impairment levels Blood-alcohol levels of road users Road infrastructure crash safety ratings (link and protection scores) Vehicle compliance with testing standards Vehicle crash safety ratings Average emergency medical services response times Targeted audience groups' recall and assessed relevance of publicity and awareness campaign messages Community attitudes to road safety
Intervention outputs	Number of safety engineering treatments per section of road network Number of emergency medical services responses to road network crashes Hours of Police interventions targeting high-risk behaviours Numbers of Police intelligence services issued Media frequency and reach of publicity and awareness campaigns supporting Police enforcement Hours of school based education activities Volume of driver training, testing and licensing activities Volume of activities issued



## Module 2

# ROAD SAFETY FUNDING

FUNDING AND RESOURCE ALLOCATION




### Socio-economic costs of road crashes

Traffic crashes are one of the most critical problems being faced by people and countries at present time

Road traffic crashes are recognized as a growing public health problem

The increasing number of traffic accidents is imposing considerable social and economic burdens on the victims and various direct and indirect costs to individuals and governments

**COST OF ROAD CASUALTIES**  
**3%-5% GDP**



### Socio-economic opportunity cost

Countries that do not invest in road safety could miss out on between 7-22% in potential per capita GDP growth over a 24-year period

*"The High Toll of Traffic Injuries: Unacceptable and Preventable"* (World Bank 2018)


Improving the top 10% highest risk roads would cost \$681 billion worldwide

➔

This would result in a saving of more than 3.6 million fatalities in 20 years

➔

11% return on investment for low- and middle-income countries



### Funding road safety

```

    graph LR
      A[Increase of population, vehicles, and road construction programs] --> B[Increase of road crashes]
      B --> C[Increase of serious fatality, injury, loss of property and damages to vehicles]
      C --> D[Loss to the economy]
    
```

Road safety is but one of the many problems **demanding its share of funding and other resources**

A method devised to determine the cost of road accidents and the value of preventing them is essential so that **better decisions can be taken** on the resources that a government can devote to road safety

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### Why cost road crashes?

- Allows engineers to make informed decisions
- Builds understanding of what works and what does not
- Demonstrating good returns on investments can help justify spending

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### Need for road crash cost

- to ensure that road safety is ranked equitably in terms of investment in its improvement at the level of national resource planning
- to ensure that the best use is made of any investment and that the best and most appropriate safety improvements are introduced in terms of the benefits that they will generate in relation to the cost of their implementation

Rational decisions on the allocation of resources to road safety will require the use of cost-benefit analysis with explicit costs of road crashes and values of road crash prevention

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### Classification of road crashes

It is important a country has a consistent classification method in order to cost road crashes

<b>FATAL ROAD CRASH</b> is one in which one or more persons are killed as a result of a road crash, provided death occurs within 30 days	<b>SERIOUS ROAD CRASH</b> is one in which there are no deaths, but one or more persons are seriously injured
<b>SLIGHT ROAD CRASH</b> is a road crash in which there are no deaths or serious injuries but a person is slightly injured	<b>DAMAGE-ONLY ROAD CRASH</b> is one in which no one is injured but damage to vehicles and/or property is sustained.

Road crash severity is defined by the most serious casualty class of any of the victims of the incident

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### Road crash casualties

The "cost of a road crash" is not the same as the "cost of casualties" resulting from that road crash

<b>FATALITY</b> people who die immediately or within 30 days as a result of a traffic crash	<b>SERIOUS INJURY</b> people who are hospitalized for more than 6 days as a result of a traffic crash
<b>MINOR INJURY</b> people who are not hospitalized or hospitalized for a period not exceeding six days as a result of a traffic crash	

definitions currently used in Albania are in line with these international standards

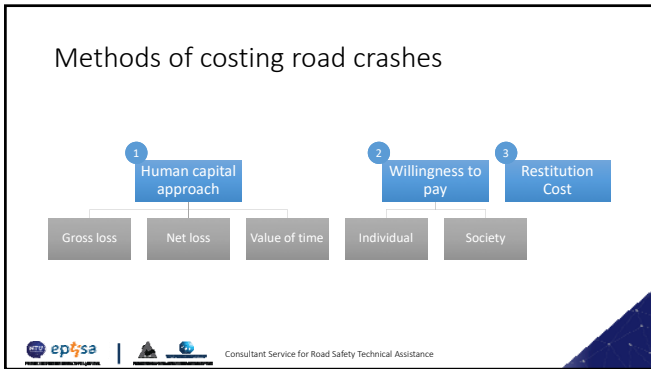
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### Costing crashes

The social costs of road crashes are an estimate of the economic damage suffered by society as a result of such events

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### Method of costing crashes for Albania

No specific methodology is defined by law for the estimation road crash costs in Albania

Article 26 of Law No. 10076, dated 12 February 2009 on *Compulsory Insurance in the Transport Sector* the cost of a fatal accident is up to **US\$ 150,000**

Minimum liability limits covered by insurance for biological, existential and moral damages (human cost) caused by a death or serious injury in a road accident

moral and existential damage from death or partial permanent disability	moral and existential damage from other damages	moral damage from a total permanent disability	existential damage from a total permanent disability	biological damage from death or partial permanent disability
€ 7,700	€ 3,850	€ 15,400	€ 11,550	€ 7,700

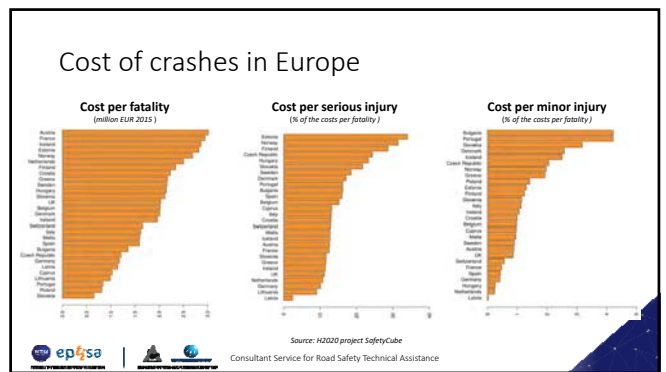
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### Method of costing crashes for Albania

*"Assessing the social costs and benefits of better and safer roads for the bottom 40 per cent and other vulnerable groups: the Albanian case"*  
(World Bank, 2015)

Fatal crash	Serious injury crash	Slight injury crash
€ 143,099	€ 11,283	€ 1,307

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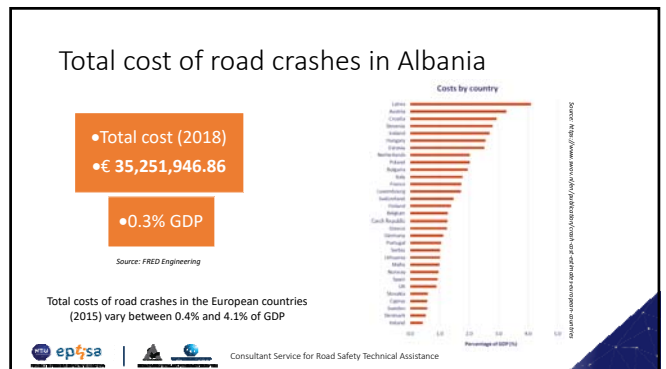


### Human Capital method for Albania

COST PER ROAD CRASH 2018	Fatal crash	Serious injury crash	Slight injury crash
	€ 135,391	€ 22,987	€ 2,526
COST PER VICTIM 2018	Fatality	Serious injury	Minor injury
	€ 116,413	€ 17,427	€ 1,836

Source: FRED Engineering

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### Road crash data

In-depth road crash investigations are necessary to identify areas of priority and develop road crash countermeasures

Category	2018	2017	% change
Road	777	700	↓11%
Bicycle	456	490	↓9%
Pedestrian	354	360	↓1%
Other	99	114	↓14%

A more complete framework for road traffic crash data statistics presentation is needed

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## Module 3

# ROAD SAFETY RESOURCE ALLOCATION

### FUNDING AND RESOURCE ALLOCATION

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### Resource allocation approach

Need for improvements is normally much greater than what is possible to implement with available resources

When planning for the implementation of improvements, it is necessary to decide which improvement should be implemented and in what order and when the selected interventions should be carried out

A suitable balance must be struck between the needs and what can actually be implemented

Focus should be put on the most suitable safety effects, and actions/projects should be prioritized accordingly

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### Cost-Benefit analysis

**Analytical microeconomic technique based on welfare economics for comparing investment and generated returns**

- Widely accepted analysis for use in project evaluation and for **assessing the economic efficiency of resource allocation**.
- It allows to **compare alternative approaches** to individual projects and to **set priorities** amongst competing projects
- It allows to **compare the benefit with the overall cost**, to deliver and sustain the project: if overall benefits > expected costs, a project is considered economically viable

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### Cost-Benefit analysis steps

- Develop measures or programmes intended to help reduce a certain social problem (e.g. road crashes or environmental pollution)
- Develop alternative policy options for the use of each measure or programme
- Describe a reference scenario (sometimes referred to as "business-as-usual" or the "do-nothing" alternative)
- Identify relevant impacts of each measure or programme. There will usually be several relevant impacts
- Estimate the impacts of each measure or programme
- Obtain estimates of the costs of each measure or programme for each policy option
- Convert estimated impacts to monetary terms, applying available valuations of these impacts
- Compare benefits and costs for each policy option for each measure or programme
- Identify options in which benefits are greater than costs
- Conduct a sensitivity analysis or a formal assessment of the uncertainty of estimated benefits and costs
- Recommend cost-effective policy options for implementation

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### Cost-Benefit scenarios

Different scenarios must be compared against each other:

- "Do-nothing" scenario**
  - Present situation not including a maintenance programme (therefore in the long term would not be able to even meet existing demand levels)
- "Do-Minimum" scenario**
  - It involves carrying out the investment and maintenance necessary to keep the system working without excessive deterioration
- "Do - Something" scenario**
  - Actions/measures/programs which improve road safety or favourably influencing risk factors that are known to contribute to crashes or injuries

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### Economic Evaluation Methods

•Net present value (NPV)

•Annuity

•Cost-benefit ratio (CBR)

Internal rate of return (IRR)

Pay back period

Ratio of NPV and public sector support (RNPS)

First year rate of return (FYRR)

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### Case study – Blackspot program

**Blackspot program** (systematic approach for identification, analysis and treatment of hazardous locations on the road network)

**Cost-Benefit analysis implemented:**

- analyses and ranking of sections of the road network in operation and upon which a large number of crashes have occurred and in order to recognise the causes
- selecting possible countermeasures
- identifying those having a potential for improvement

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### Case study – List of blackspots

Blackspot	Location	Type of road	Description
B002	SH72 - Berati-Ura Vaqarore	2-way road	settlement crossing
DU07	SH84 - Xhufretja	2-way road	roundabout
DU09	SH1 - F Krupa-Tirane	2-way road	T-junction
FR02	SH8 - Fier-Vlore	2-way road	T-junction in semi-urban area
FR06	SH4 - Lezha-Prezhegim	expressway	exit ramp
GU01	SH76 - Tepelene-Velqot	2-way road	T-junction
KO01	SH3 - Pogradec-Korce	2-way road	4-leg junction (with minor roads)
SH03	SH1 - Shkoder-Koplik	2-way road	T-junction
TR01	SH2 - Vlore-Fishe Krabe	2-way road	series of T-junctions
TR09	SH4 - Kavaje-Lekaj	expressway	interchange

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### Case study - Procedure

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### Case study – Actions to improve road safety

Blackspot	Countermeasure	Cost (€)	Collision reduction
B002	Speed management through self-enforcing engineering measures containing clear speed limit signing (both signs and markings) and a 'gateway' marking the entrance in the built-up area are provided. Fumble strips are also provided to alert the drivers of the transition between road and built-up area. Footpaths are provided for pedestrians and to mark the road edges in the built-up area (capital network). A raised pedestrian crossing is also provided to slow down vehicles and cross pedestrians more easily.	17,266	40%
DU07	Implementation of an oval-shaped roundabout to convert all approaches to a safer and more fluid manner. The intervention does not touch the road edges which will be realized only with road markings, bollards and road studs.	48,983	40%
DU09	Implementation of a lane dedicated to left turning vehicles and general improvement of signage.	22,697	20%
FR02	Implementation of a traffic island and general improvement of signage.	18,582	25%
FR06	Improvement of signage aimed at reducing speed and improving the perception of exit from the express road.	20,309	20%

Blackspot	Countermeasure	Cost (€)	Collision reduction
B001	Improvement of vertical signage in order to make the intersection easily perceptible.	35,117	30%
KO01	Improvement of signage in order to reduce speed and make the intersection easily perceptible.	32,408	25%
SH03	Implementation of a traffic island and general improvement of signage, improving access to the gas station.	17,195	20%
TR01	Modification of the traffic regime on the secondary road in order to limit the number of manoeuvres allowed and reduce conflicts (no access to make one-way), implementation of a (narrow) lane dedicated to left turning vehicles. General improvement of signage.	21,095	25%
TR09	Implementation of bus stops outside the main carriageway.	32,771	20%

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### Case study - Results

$FYRR = \frac{\text{Annual collisions savings}}{\text{Scheme cost}}$

Blackspot	Treatment cost	Average annual crash cost	Average minor crash cost	Average serious crash cost	Effectiveness estimate	Scheme crash savings (SPC)	Minor crash savings (SPM)	FYRR	Priority	
B002	€ 17,266	€ 68,200	€ 2,526	0.7	0.4	20%	0.25	0.13	20%	10
DU07	€ 48,983	€ 68,200	€ 2,526	0.8	4.2	20%	0.82	1.88	137%	3
DU09	€ 22,697	€ 68,200	€ 2,526	1.9	2.8	20%	0.35	0.76	101%	4
FR02	€ 18,582	€ 68,200	€ 2,526	0.7	0.2	20%	0.18	0.09	64%	6
FR06	€ 20,309	€ 68,200	€ 2,526	1.1	0.4	20%	0.27	0.09	89%	5
GU01	€ 36,917	€ 68,200	€ 2,526	0.5	0.8	20%	0.16	0.06	30%	9
KO01	€ 32,408	€ 68,200	€ 2,526	0.9	1.1	20%	0.23	0.07	69%	7
SH03	€ 17,195	€ 68,200	€ 2,526	1.1	0.8	20%	0.31	0.21	137%	2
TR01	€ 21,095	€ 68,200	€ 2,526	1.6	1.1	20%	0.61	0.37	144%	1
TR09	€ 32,771	€ 68,200	€ 2,526	0.7	0.8	20%	0.18	0.09	89%	8

**NOTE OF CAUTION!**


High FYRR values are generally achieved with low-cost schemes but saving fewer crashes (the temptation to solve every problem by putting up just a signboard must be avoided!)

The number of crashes saved within each option must be taken into account (a minimum predicted crash reduction of 25-30% for each site)

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### Limitations of the Cost-Benefit analysis

- Difficulty in quantifying specific impacts against a scale of monetary values (ex. environmental & social impacts)
- Not taking into account the interactions between different impacts




### Multicriteria evaluation

**Procedure of comparison between different points of view which is aimed to the development of a learning activity that feeds the same decision-making process**

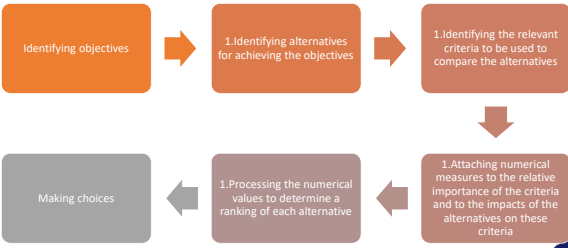

**non-monetary/non-financial method** intended to inspect the suitability of investment projects having a substantial impact in terms of environmental, social and economic aspects

**useful for analysing complex real problems** due to their inherent ability to judge different alternatives based on various criteria for possible selection of the best/suitable alternative

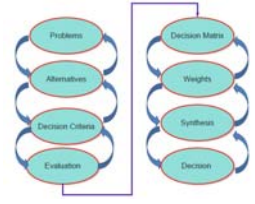
it collects all the information, all the consequences and all the perspectives related to a possible choice (**multidimensional approach**)




### Multicriteria evaluation procedure

### Detailed procedure




1. Establish the decision context.
  - 1.1. Establish aims of the MCDA, and identify decision makers and other key players.
  - 1.2. Design the socio-technical system for conducting the MCDA.
  - 1.3. Consider the context of the appraisal.
2. Identify the options to be appraised.
3. Identify objectives and criteria.
  - 3.1. Identify criteria for assessing the consequences of each option.
  - 3.2. Organize the criteria by clustering them under high-level and lower-level objectives in a hierarchy.
4. "Scoring": Assess the expected performance of each option against the criteria. Then assess the value associated with the consequences of each option for each criterion.
  - 4.1. Describe the consequences of the system.
  - 4.2. Rank the options on the criteria.
  - 4.3. Check the consistency of the scores on each criterion.
5. "Weighting": Assign weights for each of the criteria to reflect their relative importance to the decision.
  - 5.1. Conduct a sensitivity analysis: do other preferences or weights affect the overall ordering of the options?
6. Combine the weights and scores for each option to derive an overall value.
  - 6.1. Calculate overall weighted scores at each level in the hierarchy.
  - 6.2. Calculate overall weighted scores.
7. Examine the results.
  - 7.1. Conduct a sensitivity analysis: do other preferences or weights affect the overall ordering of the options?
  - 7.2. Look at the advantages and disadvantages of selected options, and compare pairs of options.
  - 7.3. Check possible new options that might be better than those originally considered.
  - 7.4. Repeat the above steps until a "sensible" model is obtained.
8. Sensitivity analysis.



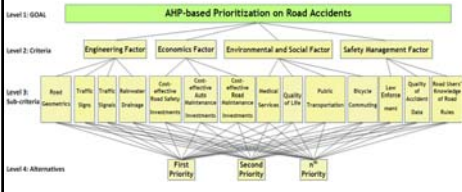


### Case study

Developed in Thailand

- It aims to give importance to crashes in order to prevent and reduce risk of them from happenings in the future (Warich Temrungsie et al., 2015)
- It surveys and collects perceptions factors related to causes of crashes and it evaluates opinions regarding these factors using pairwise comparison questionnaire to ask selected groups of policemen, health care staffs (physicians and nurses), highway department personnel, and academic and engineering staffs, with total 100 respondents.
- It focuses on pairwise comparisons of criteria and sub-criteria of crash factors




### Case study


### Road safety funding in Albania

- Lack of stable road safety funding and prioritized interventions
- No separate budget allocated for road safety in the overall state budget
- No dedicated road safety budget item for any of the government agencies dealing with road safety in Albania
- Limited road safety actions are funded if included in development projects or traffic improvement plans
- Direct budget allocations for road safety are uncommon
- Public bodies dealing with road safety issues generally suffer from a shortage of funds




### Road safety funding in Albania

- Although the GoA collects taxes that should be used for road safety improvements (general tax revenues, road funds, fuel tax, etc.), the public is not informed on how these taxes are being used for road safety improvements and earmarked to support spending on road safety issues in general
- Despite a formal commitment, the contribution of insurance agencies to road safety is lacking as is almost any sponsorship by private businesses in general




### Road safety funding approach

- should come primarily from funds allocated to the regular budget.
- should be allocated to each government body concerned and be regarded as part of their regular tasks to be performed
- IMRSC should have a dedicated budget from the GoA
- additional support from insurance companies and private businesses should be promoted

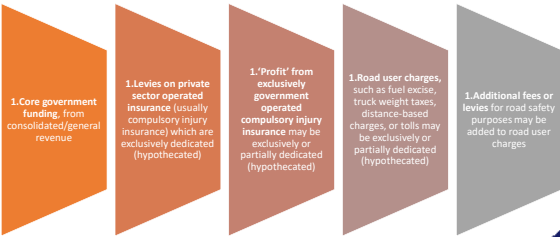


### Road safety shortcomings in Albania


- Limited political and government/administrative support on a regular basis for the implementation of road safety strategy, action plans and best practices, as well as law enforcement in general
- The IMRSC is seen more as a policy organization, does not meet regularly and the existing technical secretariat does not have real coordinating power
- There is no dedicated road safety fund
- There is a limited capacity and power to deal with road safety issues within local governments which in turn results in poor involvement in road safety and the lack of the necessary tools and know-how in road safety management
- A lack of experience, coordination and joint actions to achieve tangible results in all aspects of road safety, with the most visible negative impact in monitoring and evaluation



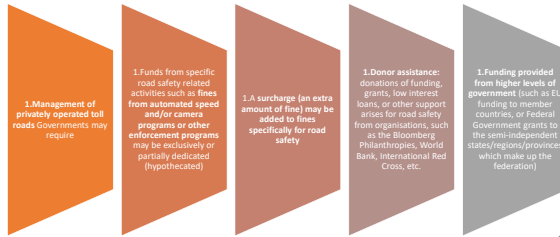
### Sources of funding for road safety




- 1. Core government funding, from consolidated/general revenue
- 1. Levies on private sector operated insurance (usually compulsory injury insurance) which are exclusively dedicated (hypothecated)
- 1. "Profit" from exclusively government operated compulsory injury insurance may be exclusively or partially dedicated (hypothecated)
- 1. Road user charges, such as fuel excise, truck weight taxes, distance-based charges, or tolls may be exclusively or partially dedicated (hypothecated)
- 1. Additional fees or levies for road safety purposes may be added to road user charges



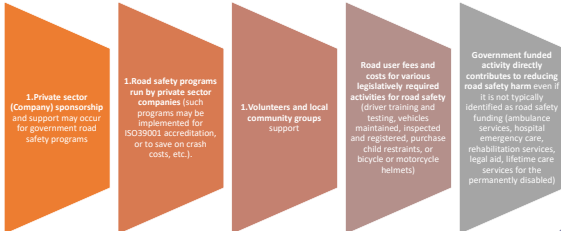
### Sources of funding for road safety



- 1. Management of privately operated toll roads. Governments may require
- 1. Funds from specific road safety related activities such as fines from automated speed and/or camera programs or other enforcement programs may be exclusively or partially dedicated (hypothecated)
- 1. A surcharge (an extra amount of fine) may be added to fines specifically for road safety
- 1. Donor assistance: donations of funding, grants, low interest loans, or other support raises for road safety from organisations, such as the Bloomberg Philanthropies, World Bank, International Red Cross, etc.
- 1. Funding provided from higher levels of government (such as EU funding to member countries, or Federal Government grants to the semi-independent states/regions/provinces which make up the federation)



## Sources of funding for road safety



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## Key features for funding road safety

- Road Safety Funding must be sufficient for the program of works required
- Road Safety Funding must be sustainable
- Road Safety Funding must be certain or at least reasonably predictable. Planning for road safety is often based on a strategy or program which covers a decade and action plans of 1 or 2 or 3 years
- A road safety fund must be created in preference to a road fund
- The specific business case for road safety funding must be developed, based both on the suffering saved and the real economic saving to be achieved through reduced deaths, injuries, and crashes



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## Key features for funding road safety

- Road Safety Funding mechanisms must alleviate accusations of revenue raising
- Road Safety Funding must be improved by clear elements of social justice and selective adoption of the user pays principle
- Road safety fund expenditure must be fully controlled by those responsible for road safety
- Multiple relevant agencies must be funded through the lead agency so that specialist skills and arrangements of the various agencies are harnessed for road safety
- Road maintenance must not be seen as road safety and funded from road safety resources



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## Key features for funding road safety

- Road Safety actions and the funding required for them must be incorporated in the budgets and plans of delivery agencies each year
- Expenditure of road safety funding must be flexible from year to year. This allows for changes in action plans as the nature of the problem evolves and the effects of previous actions are seen (or not seen)
- Road safety expenditure by each agency must be separately and identifiably reported in Annual Reports to allow tracking of funds.



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## TIME FOR QUESTIONS & DISCUSSION



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## THANK YOU FOR YOUR ATTENTION!

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