Terms of reference N°4: Specification of project components

PHASE II: SPECIFICATION OF PROJECT CONCEPT [STEPS 4–7 & STEP 9, TASKS 9.1 & 9.2]

BEST PRACTICE RTRC ROAD SAFETY INTERVENTION, POLICY REFORMS, MONITORING & EVALUATION SYSTEMS, AND PROJECT MANAGEMENT ARRANGEMENTS

Background

Provide description of proposed project.

Objectives

The objectives of the required technical assistance services are as follows:

- Specify best practice interventions and policy reforms designed to address road safety priorities in the project RTRC.
- Formalize regional and country agency responsibilities for selected best practice interventions and policy reforms in the project and review agency management delivery capacity.
- Refine specified best practice interventions and policy reforms in the project RTRC.
- Specify project monitoring and evaluation systems and project management arrangements for best practice interventions and policy reforms in the project RTRC.

Outputs

The outputs of the required technical assistance services are as follows:

1 *Specify best practice interventions and policy reforms.*

1.1 Identification of best practice interventions with high potential to address identified project RTRC road safety priorities within agreed-on project budget and provision of indicative estimates of anticipated safety benefits

1.2 Identification of best practice policy reforms in the context of broader regional and national policy contexts and policy issues that have the most impact on the safety of RTRC traffic.

2 *Formalize agency intervention and responsibilities and assess related delivery capacity.*

2.1 Confirmation of regional and country agency responsibilities for selected best practice interventions and policy reforms in the project RTRC and commitment to delivering them

2.2 Assessment of agency capacity to deliver selected best practice interventions and policy reforms in the project RTRC

2.3 Refinement of proposed best practice interventions and policy reforms in the project RTRC.

3 *Specify monitoring and evaluation systems and project management arrangements for the RTRC road safety project.*

3.1 Identification of performance measures, measurement periods, and baseline measures for each intervention component in the project RTRC and broad specification of related measurement equipment and data management requirements

3.2 Identification of performance measures and measurement periods for each policy review component in the project RTRC

3.3 Specification of project management arrangements for the road safety project.

Method

Attachment 1 provides broad guidelines for the most promising best practice interventions and policy reforms in the project RTRC.

Attachment 2 provides guidelines and checklists for the assessment of delivery agency capacity for selected best practice interventions and policy reforms (output 2.2), and the refinement of proposed best practice interventions and policy reforms in the project RTRC (output 2.3).

Attachment 3 provides examples of project performance measures (output 3.1).

Attachment 4 provides guidance on project management arrangements (output 3.3).

Scheduling of tasks

To be developed in accordance with project identification and preparation schedule.

It is envisaged that these tasks will be carried out in accordance with the specified phases and steps of the RTRC guidelines. The first step is specification of best practice interventions, policy reforms, monitoring and evaluation systems, and project management arrangement sufficient to prepare a comprehensive, feasible project concept. The second step is to undertake, following approval of the project concept, a more detailed specification of project components.

Professional skills and experience required

Road safety management specialist

Internationally recognized road safety management specialist with more than 10 years of leadership experience in the development and implementation of national and regional road safety strat-

egies. Demonstrated success in working with lead agencies and associated safety-related agencies at the departmental head and ministerial levels is essential.

Road safety analysis specialist

An internationally recognized specialist with more than 10 years of experience conducting scientific analyses of the road environment, vehicle, and human factors contributing to road crashes and injuries. Hands-on experience in quantitative evaluations of safety interventions and outcomes is essential. Experience in road safety analyses in developing and transition countries is desirable.

Monitoring and evaluation specialist

An internationally recognized specialist with more than 10 years of experience in the design and implementation of traffic, vehicle, and road user monitoring and evaluation systems in the road environment. Knowledge of sample design methods and related measurement equipment requirements is required. Experience in road safety monitoring and evaluation in developing and transitional countries is desirable.

For all team members, a demonstrated ability to work with and gain the trust of senior government officials and professional peers is essential.

Attachment 1: Generic components of RTRC road safety projects

1. Corridor intervention priorities

Core elements	*Indicative budget*
Systematic infrastructure safety improvements These improvements will address head-on, run-off-road, intersection, pedestrian and cyclist crashes. Systematic International Road Assessment Programme (iRAP) safety inspection of corridors/corridor sections will identify priorities for cost-effective "Safe System" engineering investment for these key crash types. When crash data are limited, the traditional black spot elimination approaches to infrastructure safety improvements in high-risk corridors are ill-advised because it is difficult to assess their effectiveness in safety terms.	10% of total infrastructure budget[a]
General deterrence–based road safety enforcement programs Enhanced traffic enforcement campaigns can be designed and implemented in corridors to develop more effective deterrence–based measures to achieve improved compliance with vehicle and road user standards and rules. These measures will address speeding, drunk and drugged driving, not wearing safety belts and helmets, driver fatigue, and unsafe commercial vehicles (especially lighting and overloading). This component may present an opportunity to pilot a specially trained and equipped corridor highway patrol.	Road policing activity: 20% of total corridor region policing budget[b]
Publicity and awareness campaigns Social marketing campaigns will improve traffic safety awareness and support general deterrence–based safety enforcement programs in the corridor. These campaigns will target all relevant parties and use all appropriate media, taking into account local literacy levels and language needs. Media will include local television, radio, newspapers, billboards, and posters. Opportunities can be found to use local cultural events and outlets to disseminate key messages.	Publicity and awareness campaigns: minimum of 5% of road policing budget
Community development & corporate social responsibility programs Enhanced work-, school- and community-based education programs will be designed and implemented in the corridors and surrounding areas. These will be integrated with the traffic enforcement and social marketing campaigns. The new ISO 39001 road traffic safety management systems standards provide an opportunity for large commercial organizations along the corridor or regularly using the corridor to undertake pilot projects.	

Improved post-crash response and emergency medical services	
Enhanced post-crash safety services can be designed and implemented in the corridors and surrounding areas to improve the survivability of road crash victims and their longer-term recovery prospects. These services are likely to include: ■ First responder training programs for those (other than local health workers) most likely to attend crash scenes (e.g., taxi drivers, local business people, and traffic police) ■ Emergency response systems ■ Establishment of trauma registries ■ Computerized road traffic injury monitoring systems in health facilities. ■ Guidelines produced by the World Health Organization (WHO)[d] can be used to assist in the preparation and implementation of these services	$2 million plus

a. The Global Plan of the UN Decade of Action for Road Safety 2011–2020, together with regional statements (e.g., by the United Nations Economic Commission for Africa, UNECA), call for road infrastructure safety to make up at least 10 percent of the total road infrastructure budget.

b. Good practice traffic safety policing, which when combined with social marketing delivers high benefits to costs (e.g., see Bliss et al. 1998), would make up about 20 percent of the total police budget for the corridor, and, following mainstreamed road safety infrastructure treatments ,would be expected to make up two-thirds of the remaining project component costs.

c. ISO (2012).

d. Mock et al. (2004); Sasser et al. (2005).

2. Corridor road safety policy reforms

Core elements	*Indicative budget*
Heavy commercial vehicles The safety of heavy commercial vehicle safety operations (freight and passenger transport) is a major concern on RTRCs in LMICs. Key risk factors are speeding, overloading, and lack of conspicuity. A systematic policy review by independent experts of international best practice heavy vehicle safety regimes would assess the medium- to longer-term policy options for the corridor and the countries through which it passes. Links can also be made to interventions in project corridors that may, for example, provide opportunities for the provision of portable weigh stations.	$1–2 million
Heavy commercial vehicle drivers Heavy commercial vehicle driver standards are a major concern of RTRC agencies in view of the unsafe behavior of users stemming from weak licensing standards, weak enforcement of key safety rules, and the absence of self-explanatory road environments. A systematic policy review conducted by independent experts of international best practice heavy commercial vehicle driving standards would assess the medium- to longer-term policy options for regional harmonization	

Infrastructure safety performance standards

The current standards for junction design and management of the transition from high- to low-speed environments expect vulnerable road users to compete successfully against higher-speed, higher-mass vehicles. But the consequences are dire. Only the "Safe System" approach recommended by the World Bank and other international development organizations promotes design and operational solutions that have the potential to reduce inherent dangers in the road transport system. A systematic review of existing legislation governing the design, operation, and management of road infrastructure will assess the priority given to road user safety and the related highway agency roles, responsibilities, and accountability for safety performance. Special attention will be paid to the requirements for setting speed limits and to safe road designs to enhance their protective qualities for vulnerable road users, the related use of safety audit and safety rating tools, and work zone safety. It is expected that there would be interface between this activity and the infrastructure activity highlighted in corridor component 1.

3. Corridor Monitoring and Evaluation Systems

Core elements	*Indicative budget*
Performance targets A safety performance management framework must be established for corridor projects to allow the setting, monitoring, and evaluation of goals and targets for the long term and the interim. These goals and targets should take the form of final outcomes,[e] intermediate outcomes,[f] and outputs.[g] It is important that performance targets are ambitious, and that the project aims to determine what can be achieved with the systematic application of good practice measures as part of its learning by doing function. **Performance measures and periodic surveys** Every effort should be made to obtain reliable baseline estimates of both the current and ongoing performances in the targeted corridors and areas. This will require combining the available police and health sector data and iRAP surveys and carrying out periodic surveys of means speeds, drinking and driving, crash helmet use, and so forth (see table 5.2 for examples). **Reporting arrangements** Related to the project management and monitoring and evaluation requirements is the need to reach early agreement on the project performance reporting requirements. Consensus is needed across the project partnership on the process, content, and timing of project reporting arrangements.	$3–4 million

e. Final outcomes can be expressed as a long-term vision of the future safety of the road traffic system (e.g., as in the concept "Vision Zero" developed by Sweden and adopted by the EU to virtually eliminate deaths in road traffic by 2050 and "Sustainable Safety" approach adopted by the Netherlands to prevent road traffic crashes and injuries) and as more short- to medium-term targets expressed in terms of social costs, fatalities, and serious injuries presented in absolute terms and also in terms of rates per capita, vehicles, and distance traveled.
f. Intermediate outcomes are linked to improvements in the final outcomes. Typical measures include average traffic speeds, the proportion of drunk drivers in fatal and serious injury crashes, safety belt–wearing rates, helmet-wearing rates, the physical condition or safety rating of the road network, and the standard or safety rating of the vehicle fleet.
g. Outputs represent physical deliverables that result in improvements in intermediate and final outcomes. Typical measures include kilometers of engineering safety improvements, number of police enforcement operations required to reduce average traffic speeds, and number of vehicle safety inspections. Alternatively, they can correspond to milestones showing a specific task has been completed.

4. Corridor Project Management Arrangements

Core elements	*Indicative budget*
Designated lead agency arrangements An essential element will be to create a regional government lead agency role and body for the project that enables it to deliver effectively on its institutional management functions and build and strengthen its leadership and partnership in the process. The project management arrangements should model the vital lead agency contribution to directing and sustaining the production of improved road safety results and be designed to maximize the potential for the lead agency to rapidly assert itself in this role and build its capacity accordingly. This process will be informed by road safety management capacity review findings, which will help identify specific and appropriate leadership arrangements for the corridor. **Coordination structures and working procedures** Regional coordination arrangements must be established. Coordination structures should engage project participants on at least three decision-making and consultative levels: agency leaders, senior agency managers, and external partners and stakeholders. Basic management arrangements should include at a minimum a high-level steering group comprising agency heads, a senior managers working group, and an extended senior managers consultative group that includes wider business sector and community representation. These groups would be supported by expertise and resources provided via the lead agency and associated technical assistance, informed by capacity review findings. **Project promotion** Promotion of project goals and achievements is essential and should be managed by the lead agency, working through the steering group that should take responsibility for the RTRC road safety brand and core safety messages.	$2 million

Attachment 2: Guidelines and checklists for review of delivery agency capacity

Checklists 2–5 of the core World Bank capacity review guidelines provide useful reference material for addressing the assessment of agency capacity to deliver selected best practice interventions and policy reforms in the project RTRC (output 2.2) and the refinement of proposed best practice interventions and policy reforms in the project RTRC (output 2.3)—see Bliss and Breen (2009).

These checklists have been adjusted for the purposes of the RTRC road safety management capacity review process and are attached here as checklists 1–4.

Checklist findings must be interpreted using the judgments of expert safety management. If the answers to questions are mainly "no" or "pending," capacity is clearly weak. When a high number of "pending" or "partial" answers are encountered, capacity is again weak, but signs of capacity strengthening are evident and should be acknowledged and encouraged. It is only when there is a predominance of "yes" answers that capacity can be viewed as strong. It is important to seek a consensus on the assessment made for any particular element of the road safety management system being appraised.

Checklist 1: Planning, design, operation & use of RTRC

Question	*Yes*	*Partial*	*Pending*	*No*
Have comprehensive safety standards and rules and associated performance targets been set for the planning, design, operation, and use of the RTRC to achieve the desired focus on results?				
Are the official speed limits on the RTRC aligned with "Safe System" design principles to achieve the desired focus on results?				
Is a compliance regime in place on the RTRC to ensure adherence to specified safety standards and rules to achieve the desired focus on results? ❑ Road safety impact assessment? ❑ Road safety audit? ❑ Road safety inspection? ❑ Road safety rating? ❑ Black spot management? ❑ Network safety management? ❑ Speed management? ❑ Alcohol management? ❑ Safety belt management? ❑ Helmet management? ❑ Fatigue management?				
Do the specified RTRC safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results? Do the specified RTRC safety standards and rules and related compliance regimes compare favorably with international good practice?				

Checklist 2: Entry & exit of vehicles to and from RTRC

Question	*Yes*	*Partial*	*Pending*	*No*
Have comprehensive safety standards and rules and associated performance targets been set to govern the entry and exit of vehicles and related safety equipment to and from the RTRC to achieve the desired focus on results? ❑ Private vehicles? ❑ Commercial vehicles? ❑ Public transport vehicles? ❑ Motorcycle helmets? ❑ Cycle helmets?				
For each category of vehicles and safety equipment (private, commercial, public, helmets) are RTRC compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results? ❑ Vehicle certification? ❑ Vehicle inspection? ❑ Helmet certification?				
Do the specified RTRC safety standards and rules and related compliance regimes and safety rating surveys clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results? Do the specified RTRC safety standards and rules and related compliance regimes and safety rating surveys compare favorably with international good practice?				

Checklist 3: Entry & exit of road users to and from RTRC

Question	*Yes*	*Partial*	*Pending*	*No*
Have comprehensive safety standards and rules and associated performance targets been set to govern the entry and exit of road users to and from the RTRC to achieve the desired focus on results? ❑ Private drivers and passengers? o Cars? o Heavy vehicles? o Mopeds? o Motorcycles ❑ Commercial drivers? ❑ Public transport drivers? o Taxis? o Buses? o Non-motorized vehicles?				
For each category of driver (private, commercial, public) are RTRC compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results? ❑ Driver testing? ❑ Roadside checks?				
Do the specified RTRC safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results? ❑ Young drivers? ❑ Older drivers? ❑ Commercial drivers? ❑ Public transport drivers?				
Do the specified RTRC safety standards and rules and related compliance regimes compare favorably with international good practice?				

Checklist 4: Recovery & rehabilitation of crash victims from RTRC

Question	*Yes*	*Partial*	*Pending*	*No*
Have comprehensive safety standards and rules and associated performance targets been set to govern the recovery and rehabilitation of crash victims from the RTRC to achieve the desired focus on results? ❑ Pre-hospital? ❑ Hospital? ❑ Long-term care?				
For each category of post-crash service (pre-hospital, hospital, and long-term care) are RTRC compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results?				
Do the specified RTRC safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results?				

Attachment 3: Examples of road safety performance measures for RTRC projects

Category	*Example of possible measure*
Risk exposure	Traffic volumes by vehicle and road user type
Final safety outcomes	Deaths and injuries recorded by police
	Hospital data for road deaths and injuries recorded by health authorities
	Other sources of death and injury registration
Intermediate safety outcomes	Average vehicle speeds by road type, summer and winter
	Front and rear seat safety belt wearing rates, driver and passengers
	Child restraint wearing rates
	Motorcycle helmet wearing rates, driver and pillion
	Excess alcohol levels
	Drug impairment levels
	Skid resistance of road surfaces
	Road infrastructure crash safety ratings (iRAP risk and protection scores)
	Vehicle compliance with testing standards
	Vehicle crash safety ratings
	Target audience recall and assessed relevance of publicity campaign messages
	Community attitudes toward road safety
	Average emergency medical services response times
Intervention outputs	Number of safety engineering treatments per section of road network
	Hours of police enforcement targeting high-risk behaviors
	Numbers of police infringement notices issued
	Media frequency and reach of publicity campaigns supporting police enforcement
	Hours of school-based education activities
	Volume of driver licensing and testing activities
	Volume of vehicles tested
	Number of emergency medical services responses to road network crashes

Attachment 4: Project Management Arrangements

Core project management functions include the coordination of RTRC road safety project delivery and should engage project participants on three decision-making and consultative levels: agency leaders, senior agency managers, and external partners and stakeholders.

Coordination structures should include:

- A high-level steering group composed of the heads of all participating RTRC road safety project agencies
- A working group composed of senior managers from all participating RTRC road safety project agencies
- A consultative group that includes all members of the working group plus representatives of the wider business sector and community.

These coordination structures should be supported by expertise and resources provided via the lead agency and associated project technical assistance. Ideally, the lead agency would chair the steering group and working group and take responsibility for ensuring the conduct of regular, productive meetings.

The steering group should meet about four times a year to track project progress reported by the working group, make related decisions, and provide guidance and direction where necessary.

The working group should meet on a more regular basis to guide the day-to-day management of project delivery and preparation of progress reports to the steering group. And the consultative group should meet as required to address relevant project issues that require business sector and community input.