CAREC
Central Asia Regional Economic Cooperation Program

SUMMARY OF PROCEEDINGS

4th CAREC Regional Road Safety Workshop

16-17 April 2018, Istanbul, Turkey

A. BACKGROUND

1. The workshop was held with the overall goal of accelerating the implementation of *Safely Connected: A Regional Road Safely Strategy for CAREC Countries, 2017-2030* (the Strategy)[1], with a focus on actions relating to *Pillar 2: Safer Roads*, through use of road safety engineering principles and practices. The workshop was designed to be highly interactive with a mix of presentations, question and answer sessions, roundtable discussions and a planning session for consideration of actions required to advance use of road safety engineering principles and practices at a national level.

2. With the title "Safer Roads; moving the region forward in safety", the specific objectives of the workshop were to allow senior officials from each CAREC member country to: (i) build understanding of best practice principles in road safety engineering; (ii) provide an opportunity for experience sharing and collaboration in road safety engineering amongst countries within the region; and (iii) discuss priority actions and areas of support that will advance road safety engineering in each CAREC country.

3. The workshop was chaired by Turkmenistan and supported by the Asian Development Bank (ADB) and its consultants. The workshop was attended by 35 participants, which included representatives from ministries with responsibilities for roads and transport from 11 CAREC member countries including Afghanistan, Azerbaijan, People's Republic of China, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan and Uzbekistan. The European Bank for Reconstruction and Development (EBRD), the TRACECA, and the United Nations Economic Commission for Europe (UNECE) offered generous support.

B. SUMMARY OF DISCUSSIONS

4. The three CAREC road safety engineering manuals were introduced and the focus of each was explained: (1) road safety audit[2], (2) safer road works[3], and (3) roadside hazard management[4]. These manuals provide guidance on international good practices in road safety engineering that can be applied in CAREC countries.

5. Participants discussed the main challenges in making CAREC roads safer and the challenges in achieving this. With few variations across the CAREC region, the following main issues stood out: (i) need for more road safety engineers and auditors across the region; (ii) legislative frameworks and policies requiring road safety audits; (iii) adequate funding for blackspot removal programs; (iv) access to accurate crash data; (v) improved management of roadside hazards; (vi) updated design standards and specifications that allow for use of newer products and approaches; (vii) improved pedestrian facilities; (viii) safer road work zones; and

[1] The Strategy can be downloaded from: https://www.adb.org/documents/road-safety-strategy-carec-2017-2030.
[2] Manual 1: https://www.adb.org/publications/carec-road-safety-audit-engineering-manual
[3] Manual 2: https://www.adb.org/publications/carec-road-safety-engineering-manual-safer-road-works
[4] Manual 3: https://www.adb.org/publications/carec-road-safety-engineering-manual-roadside-hazard-management

(ix) regionally consistent speed and axle load limits, together with effective law enforcement; and (x) public awareness campaigns.

6. Participants discussed on what CAREC highways should be like in 2030 and how this can be achieved. Participants recalled the performance targets of the Strategy for output 2 “road engineering practices used on all CAREC road corridors prioritize road safety”, i.e. “by 2030, road engineering standards used for CAREC road corridors conform to internationally accepted standards” and “by 2030, road safety audits carried out for all road projects on CAREC international road corridors”.

7. Each delegation presented specific challenges of which some can be dealt with quickly, and at low costs while others will take more time, continued action and a national commitment to provide the necessary resources. In light of this, participants agreed that a phased approach may need to be pursued to effectively implement the Strategy. Participants discussed the following possible implementation phases: inception phase (2017-2019); phase 1 (2020-2023); phase 2 (2024-2026); and phase 3 (2027-2030). Participants further agreed to identify priority actions that could be advanced or implemented by the end of the inception phase, i.e. by the next Transport Sector Coordinating Committee (TSCC) in 2019.

8. Participants were invited to outline their most pressing needs with regards to road safety engineering and related matters. Participants highlighted the following priorities: (i) funding to establish electronic databases and blackspot map; (ii) funding for blackspot programs and safer school zones; (iii) training of national road safety specialists; (iv) provision of sample of good road safety audit reports; (v) provision of sample specifications on reflective markings and signs; (vi) adequate support to counter overloading of trucks; and (v) support the design and implementation of demonstration projects.

9. Participants were further invited to highlight the types of support they expect from the CAREC Program. The result of the discussion are summarized in the Table 1.

Table 1: Support Expected from the CAREC Program

Areas of Support	Safety Audits	Standards & Specifications	Blackspot Programs	Crash Database	Awareness Campaigns
Peer Learning		AFG	PAK	PAK	
Tools development and Knowledge Sharing	AFG, PAK, MON, TAJ	AFG, PRC, TAJ	MON, TAJ	TAJ	
Training and Capacity Development	PAK, TAJ, KGZ, MON		UZB, KAZ, KGZ, TAJ		
Policy Dialogue					
Technical Assistance and Investment Financing	UZB		GEO, MON, TAJ, KGZ	GEO, MON	GEO, MON, KGZ

10. Participants requested support for knowledge sharing and capacity development activities based on countries’ specific needs and priorities. Participants further requested expanding technical assistance and investment financing to prepare and implement fully-fledged road safety programs. There was a call for considering the most suitable financing modality to support road safety programs that may eventuate (e.g.: results-based lending, policy-based lending, etc.). Initiating peer learning exchange across sub-regions has been also identified as a possible way forward.

11. Participants agreed on developing priority action plans focused on pillar 2 for their respective country following the template developed by the CAREC Secretariat (Annex 1). Achievements and progress made will be reviewed at the next TSCC.

C. SUMMARY OF PRESENTATIONS

12. **Setting the scene: How engineers can save lives on CAREC roads.** The first presentation set the scene for the remaining two days of workshop by outlining a hypothetical road crash in which all three factors (human, vehicle and road) may have contributed. The ensuing discussions helped the participants to see that the road is an important contributor to road safety and that the CAREC countries need (in general) to become more active in four key road safety areas: (i) being proactive in road designs (road safety audits); (ii) treating hazardous road locations (blackspots); (iii) low cost ways to making road sides safer (roadside hazard management) and to improve pedestrian safety; and (iv) safer construction sites for workers and users (safety at road work sites). This presentation set the scene for the remaining presentations, and provided an opportunity for experience sharing and collaboration in road safety engineering amongst the countries within the region.

13. **Session 1- Being proactive in road design – road safety audits.** This presentation outlined the road safety audit process, using many parts of the new CAREC Road Safety Engineering Manual 1 (Road Safety Audit). Some aspects of how to manage an audit, and known research findings of the costs and benefits of audits were presented. An important part of the presentation was to suggest the key actions required to implement road safety audits in a CAREC memeber country highway agency. Examples from several CAREC countries were given of audits that had presented challenges to national road agencies, as well as what is required to put audits into productive national action - such as national audit policies, training, etc. There were numerous questions, ranging from technicial issues with signs and markings through to management questions about who can undertake audits, and what happens when an audit report conflcits with national “norms”.

14. **Session 2 - Treating hazardous locations with cost-effective countermeasures.** This presentation highlighted several low-cost engineering treatments that can make a road safer. Because run-off-road crashes and pedestrian crashes are serious road safety issues across the CAREC region, the presentation focused on treatments that can be applied at hazardous locations involving pedestrian collisions or run-off-road crashes. Many CAREC road users are killed or severely injured in pedestrian collisions or single-vehicle run-off-road crashes. The presentation outlined a series of practical and low-cost options to improve pedestrian safety, as well as a strategy and practical ways to make CAREC roadsides safer. The strategy focused on the clear zone concept, as detailed in the new CAREC Road Safety Engineering Manual Three (Roadside Hazard Management).

15. Questions referred to the difficulties of obtaining sufficient land to have the clear zone and to the national standards used for safety barriers and terminals. Pedestrian issues were highlighted; many participants believed that pedestrians are at fault and need better education in road safety. Participants agreed that a multi-factorial approach to road safety is needed in every country, but that engineers can do many things unilaterally to improve safety for all.

16. **Session 3 - Making Road Work Sites Safer.** This presentation highlighted the known risks of serious crashes in a road work zone of between 3-5 times greater than in other parts of the road network. It highlighted the fact that these risks are created by engineers and must therefore be mitigated by engineers. Using the new CAREC Road Safety Engineering Manual Two (Safer Road Work Sites) the essential actions required to ensure safer road work sites on CAREC roads were explained. The presentation concluded by encouraging the CAREC member countries to address this issue in their draft national priority action plan.

17. **Session 4 - Treating blackspots: what is needed for successful blackspot programs?** Participants were firstly introduced to the crash investigation process which

stresses the importance of good crash data within the formulation of blackspot programs. Some examples of collision diagrams were provided and successful crash reduction measures were explained to show how programs of work can be effectively delivered. The presentation also discussed the economics of road safety improvements and how important it is to monitor blackspot programs to understand 'what works and what does not'. Participants received practice advice on staffing and funding sources for future blackspot programs. The importance of good crash data was discussed in depth (e.g. how collectinggood crash data is critical when using GIS systems and how quality of crash data presents a big challenge for the CAREC region).

18. **UN road safety conventions – are you using them correctly?** UNECE's "Overview of the UN road safety legal instruments" presentation introduced the 1968 Convention on Road Traffic, 1968 Convention on Road Signs and Signals, the "Vehicle Regulations" Agreements of 1958, 1997 and 1998, and the 1957 European Agreement on the Transport of Dangerous Goods by Road. It also summarized the objectives and benefits, and listed the contracting parties to these conventions, which include nine out of the eleven CAREC countries for the 1968 Conventions. Various UN General Assembly resolutions on "Improving road safety" were highlighted together with Sustainable Development Goal targets 3.6 and 11.2.

19. The presentation also provided information on the UNECE's Inland Transport Committee and the Global Forum on Road Traffic Safety. It provided an overview of the general rules for drivers as embodied in the 1968 Convention on Road Traffic, and drew links to the Consolidated Resolution on Road Traffic which includes chapters related to road infrastructure and safety. The presentation concluded with steps on acceding to a UN convention and an example of a model accession. Participants were encouraged to better implement the conventions to which their countries are contracting parties to.

20. UNECE also presented on the "European Agreement on Main International Traffic Arteries". An overview of the key provisions in the agreement and its annexes, eligibility for accession, and links to SDGs 9.1 and 3.6 were provided. As there was interest by the participants to be informed of potential standards and specifications for the E-roads within their countries, attention was drawn to the guidelines for infrastructure included in Annex II. Three CAREC countries – Azerbaijan, Georgia and Kazakhstan – are contracting parties to this agreement.

21. **Improving road safety on TRACECA corridor.** TRACECA Program introduced its Road Safety Project, which supported the implementation of the TRACECA Regional Road Safety Action Plan. The Action Plan is harmonized with the Global Plan for the Decade of Action for Road Safety and includes 6 key activity areas (road safety promotion; road safety planning and management; maintaining safe infrastructure; developing new safe roads, technologies and practices; promoting knowledge and capacity development; and research and analysis for the road safety decision making). Within the framework of the TRACECA Regional Road Safety Action Plan, a number of manuals on road safety audits, black-spot management, safe road design and safe road traffic management have been prepared.

CAREC ROAD SAFETY ACTION PLAN TEMPLATE – PREPARED FOR USE AS TEMPLATE, CAREC WORKSHOP, ISTANBUL APRIL 2018

(Please modify to suit your country's needs and priorities)

DRAFT ROAD SAFETY ACTION PLAN FOR PILLAR TWO									
GOAL	**OBJECTIVES**	**MAJOR ACTIVITIES**	**TASKS**	**LEAD AGENCY**	**OTHER AGENCIES**	**KEY PROGRESS INDICATORS**	**PRIORITY**	**$ BUDGET PER YEAR**	**TIME**
Safer roads	Introduce a sustainable crash investigation (blackspot) program	Capacity building for road agency engineers to enhance their ability to support this program.	Engage international consultant to provide TA to assist the road agency in this task			Consultant engaged and positive interaction with road agency engineers. 2 months per annum	**HIGH**		Years 1-5
			Hold a 5 day road safety engineering workshop annually for engineers and Police		Traffic Police	Training course successfully held and evaluated	**HIGH**		Years 1-5
			Send 2-3 engineers to Australia each year to participate in a RSE engineering workshop and to work side by side with government engineers managing a blackspot program			Successful study tours (14 days duration) held annually	**MEDIUM**		Years 1-5

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GOAL	**OBJECTIVES**	**MAJOR ACTIVITIES**	**TASKS**	**LEAD AGENCY**	**OTHER AGENCIES**	**KEY PROGRESS INDICATORS**	**PRIORITY**	**$ BUDGET PER YEAR**	**TIME**
		Provide funding for the treatment of at least six blackspots each year.	Investigate, develop countermeasures, design, implement			Blackspot treatments implemented successfully	MEDIUM		Years 1-5
	Introduce the road safety audit process into the design process for road projects	Capacity building for road agency engineers to enhance their ability to support this program.	Engage international consultant to provide TA to assist the road agency			Consultant engaged and positive interaction with road agency engineers. One month per annum			Years 1-5
		Adopt a road safety audit manual and develop an RSA policy	Engage international consultant to provide TA to assist the road agency			Consultant engaged; RSA manual and policy established within road agency			Years 1-5
		Implement the RSA process	Engage international consultant to provide TA to assist the road agency in this task			Consultant engaged; positive introduction of the audit process. One month per annum			Years 1-5
	Implement a program of urban road safety improvements in cities, with specific attention to the needs of vulnerable road users	Provide funding for treatment of at least two urban road safety initiatives annually	Improvements to footpaths or signals or crossings near schools		Education	Two projects successfully implemented each year			Years 1-5

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GOAL	**OBJECTIVES**	**MAJOR ACTIVITIES**	**TASKS**	**LEAD AGENCY**	**OTHER AGENCIES**	**KEY PROGRESS INDICATORS**	**PRIORITY**	**$ BUDGET PER YEAR**	**TIME**
	Improve the level of road safety at road work sites	Capacity building for road agency engineers to enhance their ability to support this program.	Preparation of a Field Guide to be used by supervisors and contractors at road work sites. Provision to road agency of bollards and signs for use at road work sites. Field training for engineers and supervisors, as well as contractor staff.		Contractors	Field Guide published and distributed. Audits of works sites show positive improvements			Year 2
ANNUAL BUDGET FOR PILLAR 2								$	