ChinaRAP Survey and Data Collection



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About ChinaRAP:

Vision: China free of high risk roads

Team composition: a core team of 20 staff, part of RIOH group

A collaboration between RIOH and iRAP

System solutions (static and dynamic) to traffic safety management, design improvement, facilities application, traffic risk monitoring and intervention

Coverage of expressway, national and provincial, rural road, urban roads

今即市

Road assessed 300,000km+, 28 provinces in China, 6 countries

CTADIO

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ChinaRAP Development



ation is accessible to ADB Management and staff. It may be shared outside ADB with

ChinaRAP Application Scenarios

Policy making	 Highway Safety to Cherish Life Project (HSEPI's safety goal: to eliminate high risk roads (level 4 and 5) gradually
Road network management	 HSEP II regional road assessment and risk identification for current road, road safety funds allocations. Regional speed management projects
Engineering FSR supports	 ADB Unlocking Innovation for Development project HSEP new roads FSR benefits analysis
Guide Design	 Interactive safety design tools and safety- oriented, economic analysis adopted in WB, ADB, HSEP II and regional road infrastructure improvements projects.
Assessment	 HSEP II post construction assessment Effectiveness of countermeasures

ChinaRAP

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Data Collection, Management and Analysis



✓ Other supporting data

cessible to ADB Management and staff. It may be shared outside ADB with

FIRST (Fast Interactive Road Survey Tool) – Portable model







- Georeferenced data include: distance, road images, road alignment, speed limits signs, etc
- Intelligent recognitions of road markings



Road Survey with LiDAR Stereotype – High precision model





- Collecting data on the operating roads in average speed.
- Intelligent recognition Safety Barrier/Pole/Road Marking
- Measure the Height of Barrier and the Radius of Pole







Data Management System

Survey System Interface



Road Asset Management System

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Road Risk Assessment System



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保护与前行人员遗		~	=約行人注意		5
087188		~			2
		~	 医学校型 	Rural / open area	1
•Re	< 30 km/h	~	新日本新日		5
		Y	*这实现利益州	Not present	
•中央网络教徒	Safety barrier - metal	~	•中送着动带	Not present	
•時例地址-主例距离	0 to <1m	~	•時例走验-车到粉体	Safety barrier - metal	1
4時於流祉-6包建革	0 to <tm< td=""><td>~</td><td>•時创地验-田创物体</td><td>Safety barrier - metal</td><td>5</td></tm<>	~	•時创地验-田创物体	Safety barrier - metal	5
•延用泉均常	Not present	~	•车则硬格用宽度	Vide (2.2.4m)	1
*古别说将有文章	Wide (2.2.4m)	~	*X.70#2	Merge lane	
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*2.7.0 %R	Adequate	~	•30人口	Commercial Access 1+	
*\$:20	ore	~	*# 过 究变	Wide (>= 3.25m)	



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Now and future:

Update equipment and data management systems

Develop ChinaRAP methodology and assessment standards and specifications

Al facilitated auto recognition of road attributes

Risk forecasting through metadata and machine learning

今回主

Build up the road risk monitor platform



俗安X

